Research on the Relationship between Global Electronic Logistics and Supply Chain Management Based on Computer Technology

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Abstract. With the rapid development of the mobile Internet, the degree of the logistics industry is deepening, the logistics operation process has produced a large number of data, how to use the computer for visual logistics operation management, is the entire logistics industry is facing the opportunity and problem. The application of computer technology can help logistics enterprises improve their management level; realize the purpose of intelligent decision-making and accurate prediction. Furthermore, it can also predict the future demand of commodities, open up new markets, expand the business scope, and realize refined and visual control of the commodity circulation process.

Keywords: Computer, Intelligent Logistics, Management Mode

1. Introduction

The application of computer in commercial property management can make the intelligent decision of commodity management in time and space, scientifically manage the circulation nodes and circulation channels of commercial property, and control the flow direction of commercial property in real time. Goods of the dynamic characteristics of traffic flow in the logistics enterprise use computer technology in time to catch goods manufacturer’s data, supplier data, commodity market, commodity flow, commodity flow data, consumers purchase data, consumer behavior, competitors, etc. Build on goods traffic flow, the mathematical model of circulation structure, analyze the related indicators, using correlation analysis, cluster analysis, such as computer analysis of mining technology, find the greatest influence on the flow of goods traffic flow, structure of the index, index to eliminate interference analysis results, it is concluded that the optimal solution, in order to adjust the structure of the circulation of goods to rationalize, control the flow of goods flow, the core node of commodity circulation and circulation channel to realize real-time control[1-3].

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2. Application of computer technology in intelligent logistics supply chain management

Computer technology application in the logistics supply chain management can improve the logistics supply chain flexibility, forecast analysis by computer, build differentiation of logistics service, and can be timely and rapid control each link of supply chain risk, to provide customers with security operations. As shown in figure 1 below:

![Figure 1. Optimization model of computer technology in logistics supply chain](image)

Above 1, intelligent logistics procurement through computer acquisition data capture the suppliers, purchase bulk batch purchase cost data, data, and a series of data, using the computer processing technology, to establish the optimal order decision model and risk evaluation index system, so as to determine the best order scheme, implementation of purchasing all kinds of potential risks in the process of visual management, make the management can intuitive way to understand and control the risk point, reach the purpose of reducing purchase cost; In the production logistics link, the computer technology can be used to collect, process, analyze and mine the data in the production process, and control the whole production process through the data, so as to better guide the production and reduce the unnecessary waste of resources in the production process; In the sales link with computer technology through the acquisition of consumer behavior data, historical seasonal sales, climate, weather, consumer transaction data, useful information from social media, user location display location, the content of the published data, such as real-time analysis of the data, to carry out the relevant promotion, change product placement layout, provide reference value for their own inventory of all kinds of goods.

3. Build a support platform for intelligent warehouse operation

Intelligent warehouse operation support platform is a basic platform with complete functions. The system architecture is divided into five layers: perception layer, transport layer, data layer, service layer and application layer.
Perception layer: including RFID reader, lidar, video terminal, access intercom, temperature and humidity sensor and alarm.

Transport layer: wired LAN or WIFI wireless communication is adopted to connect with the supporting platform and transmit data.

Data layer: including equipment information base, business information base, monitoring information base and personnel information base.

Service layer: including RFID middleware, ESB bus, third-party interface and other modules to provide service support for the operation of the whole system.

Application layer: including warehouse business management, security management, personnel management, report analysis, system management and other functions.

By wisdom warehousing operation support platform which can realize the goods inbound, outbound, library, inventory and other basic business intelligent processing, among them, video analysis technology can achieve storage security management, personnel management, and other functions, not only realizes the intelligent management of the warehouse, will also be able to collect logistics and warehousing of each production process and the task execution of operational data, as an important part of computer data analysis platform, intelligent analysis provides the foundation for the enterprise[4-5].

4. Intelligent storage computer application

Wisdom warehouse operation support platform will be around the warehouse operation data uploaded to the unified enterprise computing platform, classify and filtered to separate and duplicate data, analysis, summary, extraction, mining form of logistics and warehousing valuable computer, it can be applied to control and manage the whole process of coordination and management, coordination and decision. The computer platform architecture is shown in the following figure, which is divided into four layers: data source, computer acquisition, and computer service. As shown in figure 2, the length of working in the logistics management department, seniority and other factors affect the performance appraisal, etc.

![Figure 2. Comparison of computer-based logistics time and recordable accident rate](image-url)
As shown in figure 3, the data source layer mainly realizes the collection of various front-end sensing devices and data of various storage operation platforms. The computer acquisition layer realizes the import and export of structured data, unstructured data and semi-structured data. The computer processing layer realizes the distributed storage and parallel computation of data, and uniformly provides resource scheduling service, access service, management monitoring service and permission control service. The computer application layer realizes logistics transportation scheduling, storage management, traceability management, precision marketing and other intelligent applications.

4.1. Transportation scheduling

Through the computer optimization of the task delivery plan, the transportation task to the greatest extent connected, to achieve the entire transportation network task coordination scheduling, reasonable organization of transportation work and vehicle deployment, improve the level of transportation scheduling.

4.2. Storage management

Through the analysis, sorting and classification of the incoming and outgoing data of products, the correlation among different categories is deeply explored, and then the sorting list is optimized and the storage efficiency is improved by cooperating with the wave operation means.

4.3. Traceability management

With the help of computer platform, intelligent analysis and information collection at the front end of intelligent storage, the establishment of product files, a comprehensive and intuitive display of brand image, with the help of the supply chain system and e-commerce trading platform, real-time supervision of the entire process of product production, trading and transportation.

4.4. Precision marketing

By collecting the sales price, quantity and potential of similar products on various e-commerce platforms, as well as the personal information, transaction behavior and loyalty of old customers, we also dig deep into potential customers, formulate some preferential policies, stimulate the enthusiasm of purchasing, and push the product information in a targeted way, so as to achieve accurate marketing[6].

5. Conclusion

Based on computer analysis of the wisdom of the warehouse operation support platform, suitable for large enterprises with multiple scattered warehouse, not only make the warehouse administrator can timely grasp the warehouse operation, more to apply computer technology in the field of logistics, intelligent storage system for construction, optimize logistics operation process, improve the automatic and intelligent level of logistics warehousing has a positive role in promoting.

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