

Research on Cross-border E-Commerce Operation Processing Model based on Big Data Technology

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Abstract: The application of big data technology has further changed the distribution mode of cross-border e-commerce. The operation of cross-border e-commerce requires strong data computing capacity and perfect logistics distribution system. With the development of big data technology, this warehousing and distribution mode has gradually become the development path of cross-border e-commerce. In cross-border electricity in the process of the construction of information processing model of data, make full use of logistics information technology, logistics, customer relationship analysis function, through the logistics research, data analysis, clustering analysis and data mining technology relationship analysis and cluster analysis, for cross-border logistics market operation mode of power conversion to provide technical support, make big data technology is widely used in cross-border power industry. After the customer pays the deposit in advance, the cross-border e-commerce enterprise can choose the appropriate distribution center according to the length and distance of the route and send the purchased mail to the nearest storage center to improve the logistics speed and user experience.

1 INTRODUCTION

Big data technology has huge data scale information base, complex data, fast processing process, inefficient value density and so on (Zheng, 2020). Big data technology is to analyze data information

through the cloud computing data processing center of the computer, and then decompose the data information into a single data source, remodel the value, and send the calculated results to users, so that users can quickly access the relevant content (Shi, 2020).

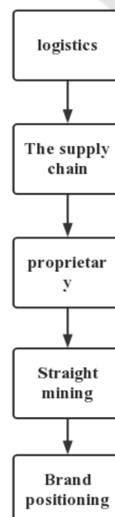


Figure 1: Cross border e-commerce operation mode.

Big data technology is a high-tech technology, which provides the scientific basis for the final decision-making of enterprises through data storage, data collection, screening and algorithm analysis (Wu, 2019, Chen, 2019). Traditionally, data analysis and data mining technology is an important product of the rapid development of information technology (Deng, 2019). At present, big data technology mainly includes cloud computing, data collection, database system, management, data mining, information visualization and other important technologies (Deng, 2019).

In the cross-border e-commerce operation mode, big data technology mainly analyzes and processes the data generated in business operation and deeply explores important enterprise development information or business opportunities (Li, 2019). Through the transformation of data information, big data technology makes these data form a systematic business model system (Cheng, 2017, Huang, 2017). Applying this system to the cross-border e-commerce operation mode can run through the whole e-commerce circulation process, such as product sales, sales scheme, product R & D and design, etc (Liao, 2017). To help cross-border e-commerce operations solve current practical problems, the use of big data technology can promote the rapid transformation of cross-border e-commerce operation mode, speed up the development of cross-border e-commerce operations, and improve the competitiveness of e-commerce enterprises (Mu, 2016, Wang, 2016, Chi, 2016).

2 DATA ANALYSIS AND PROCESSING SYSTEM

2.1 The Role of Big Data Technology in Product Marketing

Cross border e-commerce operation is a business development model deeply related to the network information platform, and there is a large amount of information and data hidden in it. As a kind of commodity transaction, cross-border e-commerce will produce a huge data information group in the process of commodity design, production, launch, sale, transportation, business management and user transaction (Zeng, 2016, Guo, 2016). Big data technology classifies these huge data groups through data analysis technology and data mining technology, and designs a special analysis and prediction model for different information classification, so as to

realize the rapid management and mastery of all kinds of information. For example, some large shopping platforms in China have established user databases through big data technology to improve the trading volume of goods according to users' buying habits (Zeng, 2016, Wan, 2016, Guo, 2016). When consumers open the shopping website, they can quickly browse the things they are interested in, including product attributes, prices and so on (Shi, 2016, Yang, 2016, Yang, 2016, Bai, 2016, Shao, 2016, Li, 2016). Businesses will see the efficiency and development trend of competitors and track and analyze their own marketing.

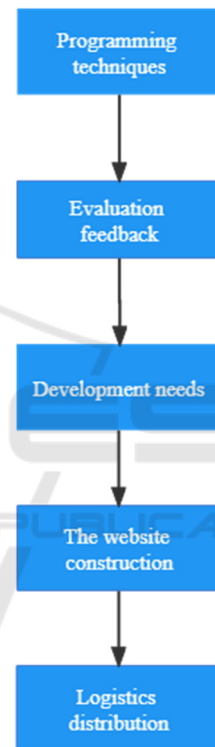


Figure 2: E-commerce registration process.

2.2 Application of Big Data in Marketing Promotion

First of all, enterprises need to accurately locate the target groups of their products. For example, baby products are targeted at "BMW". Therefore, we should make further use of the potential data information of products, quickly find the corresponding consumer groups, and realize the investment and sales of products. The second is to establish the consumer user model of commodity attributes (Jin 2015, Lin 2015).

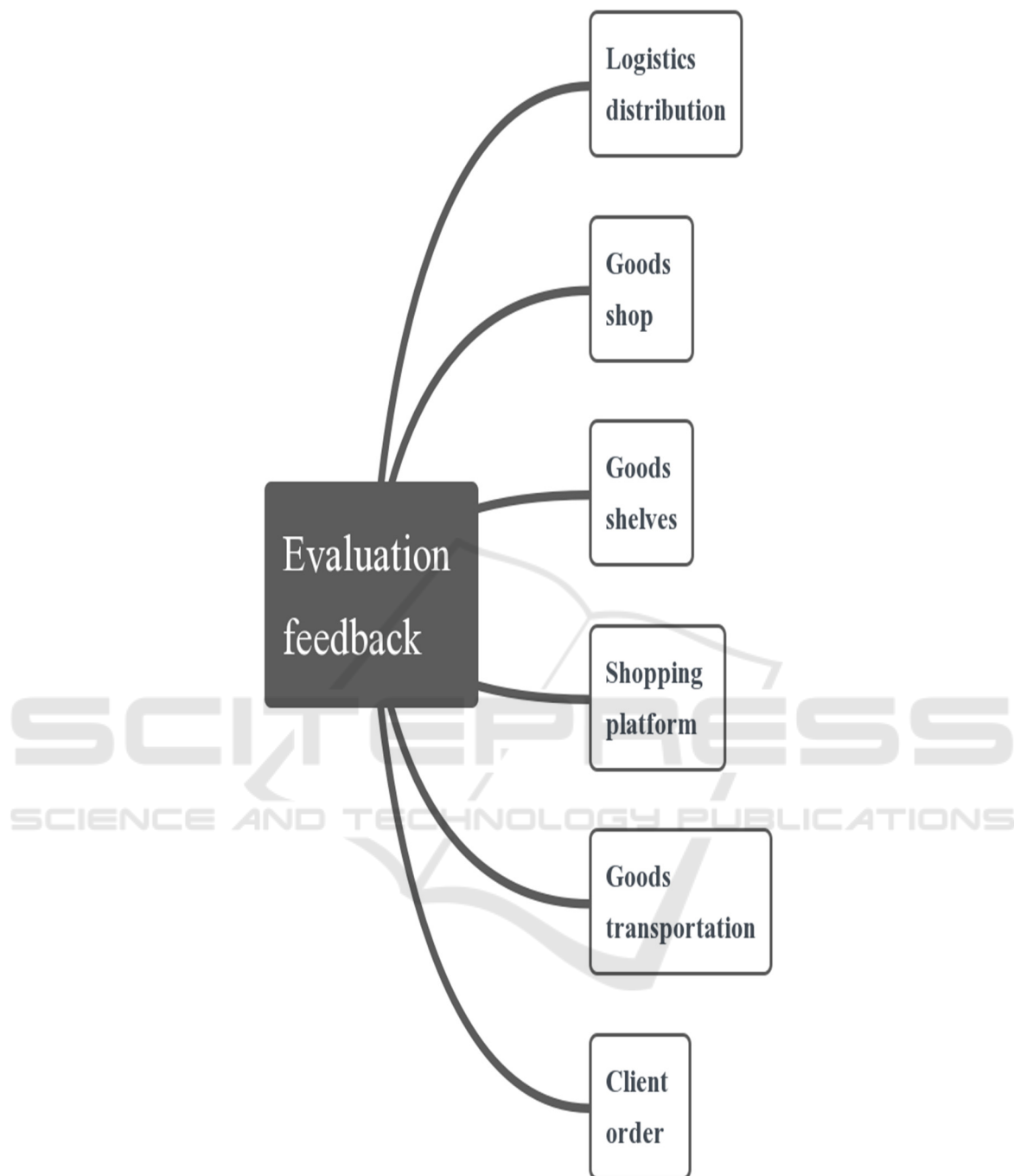


Figure 3: Basic process of cargo transportation.

By building a professional model of the system, the model can be used to quickly compare the users of the product and select the appropriate consumption target according to the user group. At the same time, consumers can also search and find products through keywords, and use big data technology to promote products, in order to explore potential consumer customers, so as to quickly achieve accurate

marketing of products (Cui. 2014, WANG. 2014, Wang. 2014). In addition, relevant e-commerce enterprises can also make corresponding product marketing plans according to the data information, so as to further attract consumers and promote high-quality conclusions of commodity transactions (Gao. 2014).

2.3 Application of Big Data Technology in User Consumption Preference

As the key technology of big data technology, data prediction has been deeply and widely used in various fields. Covering geological disasters, financial crisis, economic growth, event prediction, etc. all reflect a strong technical function (Li, 2014, Ren, 2014, ZHENG, 2014). Users' consumption preferences in cross-border e-commerce can also be realized by using big data technology. These data information can be counted, analyzed and calculated by analyzing consumers' browsing habits, purchase frequency, preference settings, click through rate, etc. through these consumption preference information, users' consumption portrait can be established for consumers to enhance the recognition of target groups (Yang, 2014, Zheng, 2014, Yang, 2014). In the shopping platform, some goods that may be purchased are recommended to users according to the user's access interface, click times, search path and residence time. Enterprises realize the marketing of shopping websites according to this technology (Zuo, 2014, Wang, 2014, Fan, 2014).

3 CONCLUSION

The application of big data technology in cross-border e-commerce can not only improve the timeliness of cross-border logistics, but also help enterprises further adjust their marketing plans and distribution routes. The transportation and distribution of products will affect users' consumption experience. Some merchants' delivery time is too long or logistics delivery is slow, which will lead to poor purchasing experience for users. Therefore, it is necessary to constantly improve the distribution routes and marketing plans of enterprises to improve the speed of logistics distribution. Therefore, through big data technology, enterprises can accurately analyze the fastest logistics route of products, and greatly reduce logistics costs. The fastest route in the cross-border e-commerce industry is air transport, which can quickly transport goods to the destination to save turnover time, but the cost is also relatively high.

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