

Research on Enterprise E-commerce Mode Based on Intelligent Management

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Abstract: With the rapid development of Internet technology and e-commerce, the traditional e-commerce management mode has been unable to adapt to the fast-paced development of e-commerce enterprises, and the management mode of e-commerce is facing new changes. The application of intelligent management technology can improve the efficiency and competitiveness of enterprises, and make the enterprise operation more transparent and efficient. Therefore, the article through the concept of intelligent management technology, the characteristics of the development of enterprise electronic commerce intelligent management, combined with the point of view at home and abroad scholars and existing theoretical basis, research based on intelligent management of enterprise electronic commerce mode, improve the level of enterprise e-commerce management, promote the sustainable development of the enterprise.

Keywords: Electronic Commerce, Intelligent management, Management model.

1. Introduction

With the continuous development and popularization of information technology, e-commerce has become one of the important means of enterprise development. The research of enterprise e-commerce model is the key [1] to improve the efficiency and management level of enterprise e-commerce. In the field of e-commerce, the application of intelligent management technology has attracted more and more enterprises' attention and attention. The application of intelligent management technology can improve the efficiency and competitiveness of enterprises, and make enterprise operation more transparent and efficient. At the same time, the continuous innovation of e-commerce models also provides more development opportunities for enterprises.

With the increasing prosperity of e-commerce industry, domestic and foreign e-commerce core enterprises such as Amazon, Alibaba and Jingdong Mall have significantly increased their market share in recent years. Thanks to their intelligent management mode and huge customer scale, e-commerce management has been greatly improved and enhanced. However, e-commerce model has its particularity, completely copying the management methods of other industry organizations is not only difficult to achieve technically, but also difficult to achieve the expected goals [2].

Therefore, with the theme of "Research on Enterprise E-commerce Mode based on intelligent management", this paper will analyze and study the concept of intelligent management technology and the characteristics of the development of enterprise e-commerce intelligent management, aiming to explore how enterprises apply intelligent management technology in the field of e-commerce to improve the operation efficiency and competitiveness of enterprises. On the basis of studying the existing literature, the paper summarizes the intelligent management mode and development trend of e-commerce, so as to improve the operational efficiency and management level of e-commerce and promote the sustainable development of enterprises.

2. Theoretical Basis

E-commerce usually refers to a wide range of commercial trade activities around the world, in an open network environment, based on browser/server application, buyers and sellers do not meet to carry out various business activities. To realize consumers' online shopping, online transactions between merchants and online electronic payment, as well as various business activities, trading activities, financial activities and related integrated service activities, a new business operation model [3]. With the rapid development of e-commerce, it not only includes the main content of its shopping, but also should include logistics distribution and other ancillary services. The e-commerce in this paper mainly focuses on the related business activities carried out through the Internet.

2.1. Intelligent Management

Intelligent Management (IM) is a new technology and a new discipline resulting from the combination and interpenetration of artificial intelligence and management science, knowledge engineering and system engineering, computing technology and communication technology, software engineering and information engineering and other multi-disciplines [4]. It studies how to improve the intelligent level of computer management system, as well as the design theory, method and realization technology of intelligent management system.

In recent years, many scholars at home and abroad have deep views on the connection between this theory and the field of electronic commerce. For example, Tu Xuyan, Li Xiushan and Chen Kai [5] systematically discussed the basic concept, overall scheme, design method, development strategy, key technology and application cases of intelligent management system in Intelligent Management, and pointed out that intelligent management is a new trend in the development of modern management science and technology. Yun E. Zeng, H. Joseph Wen, David C. Yen et al [6] sorted out the correlation between customer relationship management (CRM) and B2B. The article considers them to be two

different modules, but there are many similarities. The integration of the two will benefit the business processes of all parties involved, including sales, marketing, customer service and information support. Koki Murakata, Tokuro Matsuo [7] discusses the theory of intelligent computing for evaluation systems, and intelligent computing for e-commerce. In order to avoid the asymmetric and incomplete transaction information, a transaction evaluation mechanism is designed, and experiments are given to prove that the proposed mechanism has a high success rate for transactions. Li Weichao and Niu Gafang [8] analyzed the concept, functional characteristics and working principle of intelligent agent technology, discussed the important role of intelligent agent in network information retrieval and service, and predicted the broad prospect of mobile agent technology.

2.2. E-commerce Intelligent Management

The traditional e-commerce management mode is the business operation mode or profit mode managed by enterprises using certain technologies. There are mainly four types of management modes [9]: e-commerce between enterprises and consumers, e-commerce between enterprises and enterprises, e-commerce between consumers and consumers, offline commerce and the Internet. These models are designed to help entrepreneurs save money, worry, labor and time to build and operate online shopping malls, and rely on online shop operation to build brands and expand the market. However, the development of traditional e-commerce management mode has shown some drawbacks, enterprises can only understand its relationship in a certain mode and other subjects, and can not make meaningful guidance for enterprises to carry out e-commerce activities according to specific conditions. Therefore, enterprises in the e-commerce environment must achieve intelligent management, according to the changes of the surrounding environment, independent conscious change of business strategy to adapt to the development of The Times.

The intelligent management of e-commerce refers to the realization of intelligent and efficient operation mode by different entities participating in e-commerce in the e-commerce environment. The traditional management method and structure will not adapt to the development of e-commerce industry. The emergence of intelligent management requirements will promote the management structure of e-commerce enterprises to be more flat, the management scope is more extensive, the information management means are more diverse, the knowledge level and ability of managers are more professional, and the response ability is more agile.

The intelligent management of e-commerce studied in this paper refers to storing the data generated by enterprises in e-commerce activities by rational use, and then analyzing the relevant data of enterprises and customers by using data mining technology to provide analysis reports for enterprises and customers. Such as enterprise service evaluation, customer value evaluation, marketing effect evaluation, market demand trend, customer satisfaction evaluation, etc., to provide enterprises with decision-making information of real commercial value, and to provide customers with consumption information consistent with their own needs.

3. Characteristics of the Development of E-Commerce Intelligent Management

3.1. The Application of E-Commerce Presents a High Popularity and Ecological

E-commerce application popularization development. More and more traditional enterprises have carried out the application of e-commerce, and the group of e-commerce application is increasing. The development trend of B2C is the supermarket with a large number of commodities; The trend of C2C is the super community based on buying and selling transactions.

The development of e-commerce application is ecological. An important sign of an industry gradually entering maturity is its ecological development, and today's e-commerce service industry is going through this process. In fact, through the development and change of e-commerce for more than ten years, the environment and internal structure of e-commerce service industry have roughly formed a business ecological environment [10] close to the whole process and multi-level. Within the e-commerce platform carried out by enterprises, between the platform and customers and within the customer group, a large-scale collaboration phenomenon has been formed, and some self-service systems related to customers have gradually moved toward industrialization and ecology.

3.2. The Integration of E-Commerce Platform and Search Engine Platform

In order to improve their core competitiveness, most enterprises use the Internet in the context of Internet globalization A new wave of corporate mergers and acquisitions, win-win cooperation and restructuring is taking the Internet as the foundation, relying on industries and taking the industrial chain as the core.

First, mergers and acquisitions among Internet companies of the same category. Because of the product content of these Internet companies Similar, similar business content, through mergers and acquisitions can reduce the competitors in this industry and reduce the number of enterprises The resources consumed can fundamentally improve the competitiveness of enterprises;

Second, the complementary mergers and acquisitions between different types of Internet enterprises. Some e-commerce enterprises, which have significant advantages in huge customer scale and brand resources, merge the upstream and downstream enterprises in their industrial chain through complementary acquisitions to make up for their shortcomings and form integrated operations to improve their competitiveness.

Third, the establishment of strategic alliance. The progress of e-commerce technology has closely linked the upstream and downstream stakeholders together, created a new value chain through third-party platform enterprises, and formed a more efficient strategic alliance. Platform enterprises, upstream enterprises and downstream enterprises can seek greater interests [11] together.

3.3. Gradual Change of Customer Needs

In the past, when people buy goods offline, they can only choose from the existing product categories of merchants, and the products sold by merchants are often similar, which cannot meet the personalized requirements of many

customers, which greatly weakens the purchase willingness of customers. People prefer to buy products that can meet their own needs or express their own personality. The traditional needs of customers are gradually changing to those with individual differentiation and personalized customization. Therefore, enterprises need to produce products that satisfy customers according to different requirements of different customers.

Similarly, online, because customers can not view the actual appearance of the product, experience the performance of the product, only through the picture and text description of the merchant to understand the product information. Due to the asymmetry of information, customers often complain that the enterprise has cheated them, resulting in doubts and distrust, which shows that the enterprise is not good enough in customer experience. Customer experience is a process of interaction between customers and enterprises. Customers can decide whether to buy the products of the enterprise through experience. Enterprises can also continuously improve product performance and product quality through customer experience feedback, so as to increase customer loyalty and trust in enterprises. Nowadays, online sales are in full swing, and enterprises need to enhance the effect of customer experience to improve their core competitiveness.

4. The Mode of E-Commerce Intelligent Management

4.1. Intelligent Management of Decision-Making System

E-commerce decision intelligence has a close relationship with the development and scale of enterprises. With the continuous expansion of enterprise scale, its daily operation and management will produce a large amount of data information, the information intelligent management and analysis of statistics, can make full use of its value to the enterprise. Therefore, it is necessary to establish a set of intelligent decision-making system to efficiently manage e-commerce decision-making. For managers at different levels, the role played by BI technology is also different. In the following aspects, the intelligent management system is conducive to the enterprise researchers to obtain and collect relevant information, and the information is processed and sorted out and provided to the senior management of the enterprise, which provides a reference for the latter when making decisions. The information mainly includes the market demand and the overall profit level of the industry as well as the supply and demand situation of products and [12] the business data information of competitors. For middle managers of enterprises, business intelligence management system can be used to study and analyze the information, and make some plans within their own functional scope to give it to senior managers. The senior leaders of the enterprise can make major decisions based on this, and lay the foundation for the long-term development of the enterprise.

From the perspective of e-commerce management, whether the business decision is correct, efficient and objective mainly depends on the quality of the decision-maker, the speed of decision-making and the basis of decision-making. The intelligent management of e-commerce decision-making system can realize the collection, filtering and screening of information, and has a high systematization, so that the decision-making speed can be improved. Compared with the traditional e-commerce decision-making, each link relies on

data, thus ensuring the objectivity of information. Therefore, the intelligent management of e-commerce decision-making system greatly reduces the internal organization cost of enterprises through the correct, efficient and objective business decision-making at a higher level.

At the same time, the intelligent management of e-commerce decision-making system can reduce the dependence of the decision-making system on people, but also save more human resources, so that human resources can be more poured into the work of products and marketing. Thus, it further optimizes the proportion allocation of production cost, marketing cost and management cost in the financial management of enterprises, and then optimizes the financial resources.

4.2. Intelligent Management of Orders

With the rapid development of e-commerce industry, the orders of e-commerce enterprises are increasing day by day, and the processing of orders also needs intelligent management. The traditional order contains the basic information of the product transaction, and other additional information is not recorded or stored, so this information cannot realize the in-depth development and utilization of value. Compared with the traditional product information, the transaction information of e-commerce orders is richer and more specific, adding information related to the product distribution process, such as the location information of the product on the way to be displayed in real time. This information is very important, so it is necessary to intelligently manage this order information.

Through the intelligent management system to the electronic order statistical analysis and data mining can achieve these functions. First of all, the customer's interest habits and shopping preferences and other information have a specific and detailed understanding. It is more targeted when ordering products, and according to this information, the inventory of products is compared and analyzed, so as to decide whether to increase a certain product or to deal with its promotion. In addition, market trends and changes in supply and demand can also be reflected through this information, and enterprises can adjust their marketing strategies or develop new products [13] according to this information.

Secondly, the intelligent order management system can conduct comprehensive analysis and calculation according to the product order information, the actual logistics freight and line information, so as to optimize the logistics distribution line, select the short time and short distance route, and reduce the logistics cost of the enterprise. The corresponding model formula can optimize the calculation of these logistics distribution information and select the best distribution. In this way, the distribution relationship between customers and enterprises can be adjusted, and the efficient distribution service with the least time, space and resource cost can be selected to complete the intelligent management process of e-commerce orders.

4.3. Intelligent Management of Customer Relationship

The importance of customer relationship to e-commerce is self-evident, and good quality customer relationship even determines the long-term development trend of an enterprise. In the course of e-commerce activities, establishing contact with customers through e-commerce websites has become a new mode of communication with customers. This kind of

customer relationship model is established as the center of the customer, the enterprise should use the customer intelligent management system to improve the management work in this aspect. The function of this system is manifested in that the intelligent management system can promote the enterprise to better understand the needs of customers' products and provide customers with better products and services. In addition, it can also tap out the potential needs of users, and further expand the business scope and profit sources of enterprises. At the same time, customers will increase their purchase intention and product satisfaction.

The development of e-commerce customer relationship intelligent management needs to be based on understanding customer needs, involving the following contents:

(1) Customer data analysis. The content is mainly to analyze the realistic background of customers, analyze the different demand characteristics and purchasing behaviors of customers with different backgrounds, and on this basis, analyze the irregular data trajectory generated by customers, and extract the customer value, the influencing factors of customer loyalty to the enterprise product and the impact of individual and group differentiation of customers on the enterprise profit.

(2) Communication between enterprises and customers. Social networks are inseparable from interpersonal communication, and the same is true of customer relationship management. Effective information exchange between enterprises and customers can enable enterprises to establish a good relationship with customers, better understand each other's situation, so as to establish a deep relationship of mutual trust and cooperation, and urge enterprises to use such exchanges to understand customers to the maximum.

(3) Customer retention. If an enterprise wants to establish a long-term and stable relationship with customers, it must obtain the trust of customers and enhance the sense of trust of corporate customers, which requires enterprises to adopt different ways according to different types of customers. Customer retention is the ultimate goal of intelligent customer relationship management. On the basis of differentiation, it analyzes the situation and quality of customer relationship, analyzes customer data, obtains results and takes measures. Only in this way can customers always be loyal to the enterprise.

(4) Customer feedback. Customer feedback is based on the above content, how to test the effect of customer management intelligent management implementation, the key is to collect and analyze customer feedback information. The feedback information from customers can intuitively show the degree of realization of enterprise goals, help enterprises find problems in time, solve problems, and try to avoid the loss [14] of customers.

From the overall level, the role of customer relationship management system is also reflected in the integration of customers, enterprises, products and markets into a close organic whole, in order to achieve win-win situation. In addition, it can also promote enterprises to continuously improve their management level, better adapt to the changes of market trends, and be in a favorable position in the fierce market competition.

5. Conclusion

The enterprise e-commerce model based on intelligent management is the inevitable trend of e-commerce development in the future. With the rapid development and

popularization of information technology, enterprise e-commerce has become an important strategy and means of enterprise development. The enterprise e-commerce model based on intelligent management pays more attention to the application of information technology and intelligent management, which can better improve the efficiency and competitiveness of enterprises.

commerce enterprises will store and manage customer data in a timely, complete and safe manner through intelligent management systems, and analyze customer data through a variety of statistical analysis tools, provide a variety of analysis reports, and accurately make customer value evaluation, customer satisfaction evaluation, service quality evaluation, marketing effect evaluation, future market demand and other reports. To provide decision-making information for various business activities of enterprises. At the same time, the majority of customers who participate in e-commerce activities will realize online shopping more conveniently, quickly and safely through the intelligent e-commerce system.

The implementation of the enterprise e-commerce model based on intelligent management has a positive effect on the development of enterprises. However, the construction of e-commerce intelligent management is a complex iterative process, the realization of intelligent management system depends on the integrity and accuracy of the data, and the project promotion needs to be comprehensively considered from the complexity of the topic, the urgency of the construction cost and other factors. Therefore, first of all, we should pay attention to the input and application of information technology, and establish a perfect information system and data analysis platform; Secondly, we should pay attention to the practice and promotion of intelligent management, and establish the organizational mechanism and cultural atmosphere of intelligent management; Thirdly, we should pay attention to the mining and satisfaction of customer needs, and establish a customer-oriented marketing strategy and service system. Finally, improve efficiency and competitiveness, increase income and profits, and realize important strategic significance and practical value.

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