

# *Discussion on the optimization strategy of e-commerce marketing management under the background of big data*

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**Abstract:** In the era of big data, the scope of data information collection continues to expand, and massive data information can meet the data information application needs of different industries. In the activities of e-commerce marketing management, the integrated application of big data can help improve the efficiency of marketing management, promote the development of personalized marketing activities, and expand marketing channels. However, there are still some problems in the current integration of e-commerce marketing management and big data. It is necessary to analyze the existing problems, and discuss relevant optimization strategies according to the characteristics of big data combined with the problems. Based on this, this article explores related content.

## **1. Introduction**

With the gradual integration of information technology and people's daily life and work, a large amount of application data will be generated in the process of people's daily application of information equipment and networks. Massive data resources are called big data, which have a relatively concentrated business value and can provide information for various business activities. E-commerce relies on the Internet, and big data from the Internet is extremely important in the marketing management activities of e-commerce. In order to give full play to the role of e-commerce marketing management, it is necessary to pay attention to the technical advantages of big data and continue to integrate technical advantages in combination with realistic needs.

## **2. The Impact of Big Data on E-Commerce Marketing Management**

### **2.1. Improve the Efficiency of Marketing Management**

In marketing campaigns, it is necessary to understand the actual purchase behavior of customers, preferences in purchasing activities, and other information. Through big data, the accurate collection of these data can be realized, for example, in the shopping APP, the customer's historical purchase data information, product browsing data information, etc. can be quickly collected and integrated, and these data information can be used for marketing. Fast and accurate data collection improves the efficiency of marketing management.

## **2.2. Promote the Development of Personalized Marketing**

In the era of commodity economy, commercial products are rich in types and prices vary greatly, and e-commerce marketing management activities need to accurately locate customer portraits and implement personalized marketing according to customer needs. According to the positioning of customer portraits, marketing managers can understand the differences in the purchase behavior of customers with different preferences, such as some customers not only pay attention to the product itself, but also pay more attention to the pre-sales and after-sales service related to the product, and this key information is obtained in big data analysis, and the service can be used as the key marketing information.

## **2.3. Expand Marketing Channels**

In traditional marketing activities, the marketing channels that can be applied are relatively limited, and enterprises have limited understanding of the actual marketing conversion rate of various marketing channels. Big data can not only play a role in the early marketing decision-making, but also help enterprises understand the specific marketing effect, deepen the marketing work according to the marketing effect, and expand the marketing channels.

## **3. Problems in E-Commerce Marketing Management under the Current Background of Big Data**

### **3.1. Internal Problems**

First of all, there are problems in the data information collection and data information analysis methods chosen by some enterprises, including insufficient amount of data collection, which will affect the accuracy of data information; The lack of scientific and reasonable data analysis methods will reduce the application value of big data in marketing. The occurrence of these problems will affect the effectiveness of marketing. Secondly, some enterprises pay insufficient attention to information security management and fail to adopt an effective information management model, including the management of raw data information and the management of data obtained by analysis<sup>[1]</sup>. Information leakage caused by insufficient security of original data information involves the privacy of relevant customers and does not meet the requirements of privacy protection. Insufficient management of analytical data security will affect the competition of enterprises in marketing activities.

### **3.2. External Problems**

External issues mainly include market and customer issues. First of all, the current market business competition is fierce, all kinds of e-commerce platforms in the variety of products, and many products have homogeneous characteristics, which will further increase competitive pressure, resulting in the compression of e-commerce profit margins. Through effective e-commerce marketing management, the popularity and competitiveness of brands and products can be enhanced, but similar product marketing activities will face the same customer group, and the customer information data collected by the platform is also similar. Secondly, affected by various factors such as communication and exchange models, the degree of trust of e-commerce customers in e-commerce platforms and products is relatively limited, and in the purchase activities of some special goods and high-priced goods, these customers will give preference to the offline transaction mode. How to enhance customer trust and security through effective e-commerce marketing management has become a problem that needs to

be faced in marketing management.

## **4. Optimization Strategy of E-Commerce Marketing Management under the Background of Big Data**

### **4.1. Deepen Technology Integration and Build a Big Data Platform**

It is necessary to take big data as the driving force of marketing management, deeply integrate big data technology to complete data mining, data analysis and prediction functions, and apply comprehensive and accurate information as the basis for marketing decisions. Enterprises need to pay attention to the characteristics and development status of big data technology, continue to promote the in-depth integration and application of technology on the basis of existing technology application, and pay attention to the introduction of emerging technologies. Build a big data platform, which can adapt to the needs of data information collection and data analysis. According to the various information application requirements of marketing management, determine the functions of the platform and complete the construction of the platform. The data information collection scope of the data platform needs to include all kinds of data information inside and outside the enterprise, and the platform automatically completes the collection of information, and obtains the analysis results through the analysis and integration of information, and then displays them in the mode of visual display <sup>[2]</sup>. In the mining of marketing data and the analysis of data, it is necessary to choose scientific mining techniques to expand the scope of customer data mining, such as data mining on customers' purchase behavior, purchase preferences and purchase needs, and pay attention to the application differences of various types of information in marketing services. The platform needs to have real-time monitoring functions, in the e-commerce industry, the specific brand, product popularity will be affected by network information at any time, for example, positive network popularity time will increase brand exposure and enhance consumers' willingness to buy. The application of real-time monitoring function can understand the search volume and sales volume of products in a certain period of time, combined with other big data information to analyze the changes in brand and product attention, and the high-attention stage will be the key period for marketing management intervention.

### **4.2. Implement Personalized Marketing Management based on Customer Conditions**

First of all, it is necessary to pay attention to the basic information management of customers and the needs of customer relationship management in marketing. Through customer relationship management, enterprises can understand more specific customer information, and can also shorten the distance between enterprises, brands, products and customers, and improve customer viscosity. By building customer databases, one-to-one communication services and other models, it can adapt to the needs of customer relationship management. In the customer database, it is necessary to collect the complete information of the corresponding customer, including the customer's basic information, purchase history information, and other behavior information <sup>[3]</sup>. Through one-to-one communication services, customer portraits can be drawn more accurately, such as delineating labels according to a specific request put forward by the customer to understand the customer's shopping concerns. Secondly, when implementing personalized marketing, it is necessary to pay attention to the choice of big data analysis and calculation methods, if the correct method is not selected, it may lead to errors in the analysis results. To this end, it is necessary to pay attention to the timeliness of information collection, and through intelligent instant information processing, we can understand the changes in customer purchase behavior and other shopping preferences in the current time period, and carry out marketing for the specific changes they produce. When targeting high-end customer groups, customized marketing can be adopted and customized products can be produced for customers. The

difference in product categories determines the difficulty of production of customized products. In the case that production adjustment is less difficult, the products with personalized attributes that have been produced can be the focus of marketing, and such products can be produced according to the results of big data information analysis. In the case of difficult production adjustment and high cost, the product concept can be marketed, and the concept can be adjusted in the process of collecting customer information.

#### **4.3. Pay Attention to Security Requirements and Improve Information Protection Capabilities**

In the era of big data, the behavior of applying computers, mobile electronic devices, and other smart devices will lead to the generation of data information, and the value of these data is relatively limited without data screening and data analysis. However, the application and dissemination of data is still closely related to the privacy issues of customers, and some data information leakage will directly expose customers' privacy. Therefore, it is necessary to pay attention to the standardization and security of data information collection methods, strictly abide by relevant laws and regulations for data collection, and do a good job in the protection of data information. First of all, it is necessary to build a data security protection system and choose and apply effective data protection methods. For example, you can use backup protection and encryption protection to avoid problems such as data loss and data leakage. Secondly, it is necessary to pay attention to the impact of personnel operation behavior on data security, and conduct security education for relevant marketing managers involved in data operation and application. For some personnel who can access a large amount of data information and key data, regular security awareness training and education should be arranged, and these personnel should be required to complete the corresponding assessment tests. In addition, in view of possible data security problems, risk analysis is carried out and corresponding emergency management plans are formulated. For example, a data security emergency management working group could be established, with specialized personnel to deal with such issues.

#### **4.4. Introduce Professional Talents and Promote the Sustainable Growth of Talents**

In e-commerce marketing management, technology and talents have a core impact on management, and technical needs affect the needs of talents, and the conceptual cognition and technical level of talents will reverse affect the choice of technology and technological progress. To this end, it is necessary to clarify the specific needs of talents in e-commerce marketing under the background of big data, select professionals with good professional qualities and excellent technical capabilities, and promote the sustainable growth of talents. First of all, in the selection of talents, it is necessary to pay attention to their previous work experience to ensure that the technical ability and thinking mode of talents can be adapted to the current stage of work. Secondly, considering that the development of big data technology is in the ascendant, technological progress will continue to occur in the future, which requires talents to be able to adapt to the requirements of technological development. To this end, relevant enterprises can provide corresponding job training for personnel in different positions, guide them to understand the latest technology, and transform their work thinking in a timely manner to adapt to the development and changes of e-commerce marketing in the era of big data <sup>[4]</sup>.

### **5. Conclusions**

At present, e-commerce has become an important business model and economic growth point. The application of big data in e-commerce marketing management can improve the efficiency and comprehensive work level of marketing management. It is necessary to choose a reasonable strategy to promote the use of technological advantages. First of all, it is necessary to deepen the integration

of technology, choose scientific and reasonable methods, mine and process data information, and build a big data platform to provide data services for marketing. Secondly, in marketing, it is necessary to closely combine customer conditions, implement personalized marketing, and achieve refined management of data information. In addition, it is necessary to pay attention to security needs and improve information protection capabilities. Finally, in order to enhance the competitiveness of enterprises, it is also necessary to pay attention to the introduction of professional talents and promote the sustainable growth of talents.

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