Analysis of Big Data Precision Marketing and e-Commerce Marketing Mode Based on Supply Chain Network Information

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Abstract: the Advent of the Era of "Big Data" Has Brought Fundamental Changes in the Way Data is Used in All Walks of Life. in the Context of Global Economic Integration and Information Networking, Enterprises Are Faced with Global Market Competition. This Era is an Era of e-Commerce. New Industry Mergers and Competition Models Have Emerged. the Traditional Network Marketing Model Needs to Change. the Era of e-Commerce Has Made Supply Chain Network Information Management Possible. This Paper First Expounds the Concept of Supply Chain Network and Big Data Precision Marketing. by Analyzing the Development Status and Existing Problems of Big Data Precision Marketing and e-Commerce Marketing Mode under the Background of Supply Chain Network Information, This Paper Summarizes the Strategy of Accurate Marketing of e-Commerce Big Data.Therefore, Based on Internet Thinking and Realistic Characteristics, This Paper Explores the Precise Marketing Model of e-Commerce in the Network Information Environment of Big Data Supply Chain. e-Commerce Has Become a New Growth Point for China's Economy and a Healthy Development Direction in the Future. the Traditional Precision Marketing Method Has Been Updated, Upgraded and Upgraded through Big Data Technology, and Analyzed the Shortcomings and Bottlenecks of e-Commerce Traditional Network Marketing Model in the Context of Supply Chain Network Information. to Provide Products or Services to a Large Number of Consumers.

1. Introduction

Today is the Era of Computer and Internet Technology Development and Popularization. Massive Data Information is Generated from Various Behaviors in Various Industries, Which Greatly Affects All Aspects of People's Social Life[1]. More and More Countries and Large and Medium-Sized Enterprises Around the World Place Big Data Technology in an Extremely Important Position. the Application and Development of Big Data Technology is an Inevitable Trend in All Fields[2]. Big Data Has Revolutionized the Way Companies Access Information Resources and Implement Decisions. in the Field of Supply Chain Management, Big Data Has Also Revolutionized. the Development of Supply Chain Information Network Technology Has Changed the Way of Communication between All Human Beings, and Has Also Changed the Way of Thinking of All Human Beings[3]. Supply Chain Management is Also in the Development of Business Environment, Technological Environment, Manufacturing Mode and Advanced Logistics Services. Born. Enterprise Competition in the Era of e-Commerce Has Highlighted the Characteristics of Economic Marketization, Market Integration, and International Competition[4]. the Pressures and Challenges Faced by Enterprises Are Unprecedented. the Explosive Development of Information Technology is Actually Unconsciously Changing the Production and Operation of Enterprises, and Even the Way of Survival. How to Effectively Use the Ever-Changing Information, Quickly Respond to the Market, Make Effective Decisions, and Resolutely Implement to Occupy the Market and Win the Competition is the Key Issue[5]. the Supply Chain Network Operation Method Based on the Big Data Precision Marketing Has Become a Necessary Means for Enterprises to Gain Competitive Advantage and Occupy Market Share[6]. in Fact, the Big Data

Supply Chain Network Information System Provides Technical Support for e-Commerce Marketing. Facing the Complex Information Resource Environment, How Can Supply Chain Member Companies Effectively Integrate Data Resources and Extract Accurate and Effective Information from Them to Realize Big Data[7]. Improving the Big Data of Enterprises the Significance of Precision Marketing is Not Only to Improve the Competitiveness of Enterprises, But Also to Play an Important Role in Responding to the Drastic Changes in the Industry in the Future.

2. An Overview of the Theory of Supply Chain Network and Big Data Precision Marketing

2.1 Supply Chain Network Concept

Supply chain management is a model and strategy for enterprises to achieve competitive advantages and cooperate with upstream raw material suppliers, downstream wholesalers, retailers and logistics networks to complete the product circulation process in a low-cost and efficient manner.

The competition in the modern market has also evolved from the competition between enterprises and enterprises to the competition between the supply chain and the supply chain[8].In order to maintain the competitive advantage of the supply chain relative to other supply chains, the academic and industrial circles have strengthened the supply chain[9]. Research on composition and supply chain operations, supply chain management, a new type of business and operation model has emerged. Traditionally, the application and research of supply chain management is based on the concept of "four streams" (logistics, capital flows, information flows, and work-flows). The supply chain model established in the research is usually single. Chain type upstream and downstream structure. However, economic globalization, the rapid development of information technology, the popularity of virtual enterprises and outsourcing business activities have made the form of supply chain more and more complex and networked[10].In 1998, the concept of a supply chain network was first proposed. In order to cope with the increasingly frequent changes and fluctuations in the market, many different types of companies (suppliers, manufacturers, logistics service providers and distributors) cooperated with each other in strategy, tasks, resources and capabilities have formed an interdependent relationship, working together to provide products or services to the market, thus forming a more complex network of "supply-production-distribution-sales", This type of network is called a supply chain network.

2.2 Supply Chain Network Characteristics

(1) Multi-level nature of the supply chain network. The multi-level nature of a supply chain network means that a large supply chain network may contain multiple smaller supply chain networks, forming a multi-level feature of the supply chain network at the level. With the development of market economy and the complicated relationship between supply and marketing, the scale of the supply chain network is increasing, and it also includes more and more members of the supply chain network, forming a large-scale supply chain network containing multiple smaller supply. The hierarchical relationship of the chain network.

(2) The two-way nature of the supply chain network. The two-way nature of supply chain networks refers to the existence of competition and cooperation in the vertical and horizontal relationship of the supply chain network. On the one hand, from the perspective of the supply chain network, each node enterprise has a competitive relationship due to the use of a certain common resource, and also chooses cooperation because of the pressure of external competition; on the other hand, from the perspective of the supply chain network From the above perspective, suppliers, manufacturers, distributors, retailers and customers in the supply chain network have cooperation in logistics, information flow and capital flow, and also compete for conflicts of interest.

(3) The dynamics of the supply chain network. The joining and exiting of each member in the supply chain network is dynamic. Each node member is connected through logistics and information flow to jointly provide products or services in response to market competition. However, the connection relationship between them is not a deterministic relationship. It may

change at any time due to changes in the external environment or the adjustment of the interests of the nodes. It may not only change in terms of network structure, but also in terms of relationship strength.

(4) Cross-regionality of the supply chain network. The supply chain network spans space constraints and connects suppliers, manufacturers, distributors, and retailers around the world through close business partnerships to provide customers around the world with the products or services they need. Ultimately, suppliers, manufacturers, distributors, retailers and customers around the world are connected through logistics and information flow to form a global supply chain network (see in Table 1).

Table 1 the Difference between Networked Supply Chain Network and Networked Supply Chain Network

	Network chain supply chain network		Network supply chain network	
Network structure	There is a core enterprise network structure		There are multiple core enterprise network structures	
Coverage area	Is a cross-regional network		Local network of interrelated industry linkages, with network characteristics of supply chain networks	
Integration feature	The vertical integration of enterprises on the nodes is more powerful.		It has both horizontal and vertical integration features, and is networked and specialized.	
Communication means	Electronic technology based LAN and internet		Face-to-face informal communication, combined with various electronic technology communication means	
Network characteristics	Multi-level	Bidirectional	Dynamic	Cross-regional

2.3 The Concept of Big Data Precision Marketing

Big data refers to the massive, high growth rate and diverse information assets that require new processing models to have greater decision making, insight and process optimization capabilities. Big data includes both massive data resources and related processing technologies. The era of big data has brought about new changes in management content and business models. Countries around the world have tried big data applications. The government's big data applications are mainly to improve and improve the public. Services, such as traffic big data, weather big data, etc., the use of big data by enterprises is mainly to obtain profits and enhance market competitiveness.
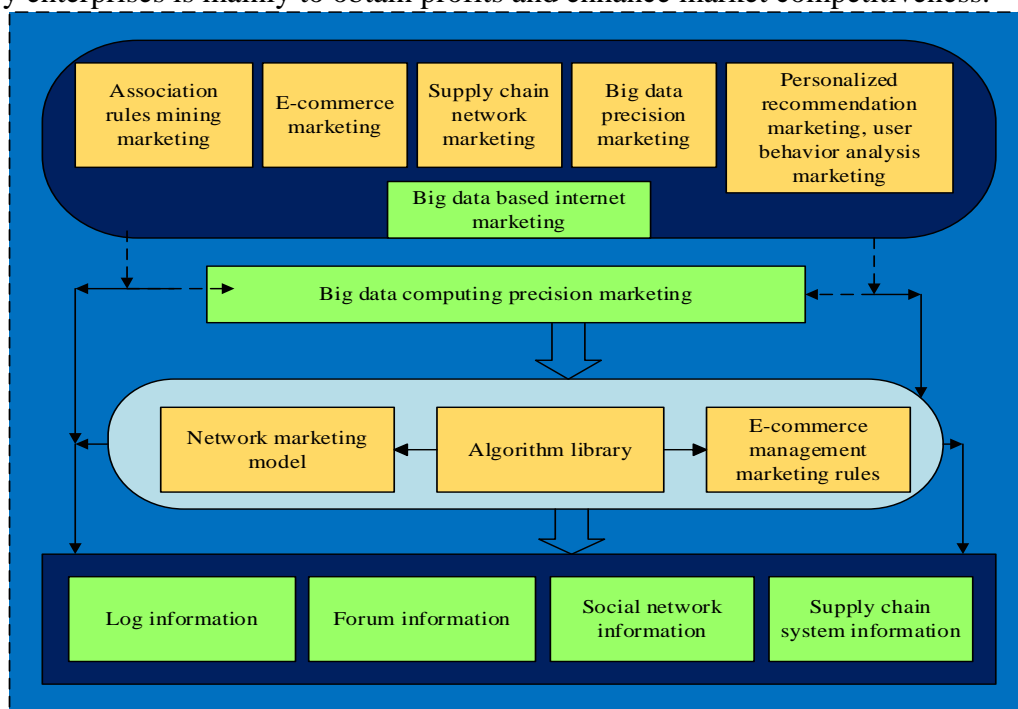

Fig.1 Precision Marketing Model Based on Big Data

American scholars Jeff Cabin and Fresh Bachelor propose that precision marketing is to improve and promote the achievement of marketing performance, and to provide services or information to target customers to influence their purchasing intentions and decision-making process. The four elements of channel, time, target customer and information are correctly combined, namely the 4R rule. Accurate marketing is based on precise positioning, establishing a personalized communication service system for customers and realizing a low-cost strategy (see in Figure 1).

Big data precision marketing is often referred to as data-driven marketing. It refers to the goal of driving consumers to participate efficiently and achieve one-to-one marketing to consumers. Through big data mining technology, enterprises are collected from outside or existing. A new type of marketing tool that analyzes a large number of consumer data and optimizes the marketing strategy based on the analysis results.

2.4 The Role of Big Data Technology in Precision Marketing

Big data, from a technical point of view, is the analysis and processing of the vast amount of data already available. Based on this, the analysis provides more comprehensive and accurate information. In terms of external performance, it is beyond the scope of traditional database comparison analysis software tools in analyzing, managing, storing and acquiring data. From the data itself, the value density of the data is relatively low, very diverse, and extremely large. Big data is essentially a collection of data. The use of big data for precision marketing actually uses big data technology to search, collect, organize, analyze, and execute massive amounts of data within specified regional thresholds, thereby obtaining corresponding results. In this process, users are encouraged to actively participate. To optimize the marketing process and marketing behavior.

3. Feasibility Analysis of Big Data Precision Marketing and e-Commerce Marketing Model

3.1 Problems in the e-Commerce Precision Marketing Model

At present, the e-commerce enterprise marketing decision-making process still relies heavily on past experience. This decision-making process lacks market information and customer information. In the market economy, the user demand situation is changing rapidly. The subjective marketing decision can only be counterproductive in the final marketing effect. The audience habits and preferences are neglected, and a large number of potential customers or prospective customers are neglected in this process. There may also be ethical and legal issues involved in the process.

Marketing should be a benign circular structure, that is, the seller sells the goods, and then receives feedback from the buyer, and the seller then improves and perfects the product based on the information. But for now, the marketing process is basically one-way, that is, the e-commerce provider sends the seller information to the user, but the user has not received the corresponding feedback. This creates information asymmetry. Therefore, under the indiscriminate bombardment of mass products, it is difficult for users to distinguish between good and bad. The more product information, the more users will not get personalized products and services, and there may be negative emotions. At the same time, it is difficult for e-commerce to send its products to specific users at special times and places.

3.2 Feasibility Analysis of e-Commerce Precision Marketing under the Background of Big Data Based on Supply Chain Network Confidence

In the era of big data, "data" is a resource, and the Internet is an important platform for the generation of big data. This makes the big data application of e-commerce close at hand, and its advantages are unique. Based on the informationization of supply chain network, from the data collection and analysis to the application of data technology, these "golden" resources are introduced into every link of e-commerce, bringing subversiveness from market positioning to channel selection. revolution. Through the analysis of massive data, it realizes the storage, cleaning and excavation of valuable data, and establishes a unique "network ID card" for each customer. The more detailed and accurate the information of the customer is, the more accurate the market

positioning is. Because big data pays more attention to the relevance of data rather than causality analysis, he can restore the seemingly irrelevant and chaotic information nodes of consumers into a complete information material. Through the analysis of these materials, marketers can be made to consumers. The consumption habits and even the emotional details are accurately measured to escort the precise marketing of e-commerce.

E-commerce has entered the stage of "data is king" in the refined development stage. Mastering the user data can explore the user's personality preferences, predict the user's purchase demand, and then "invest in its good" design marketing plan. "tailor-made" products and services, this well-designed marketing solution will bring consumers a different shopping experience than the traditional marketing model, and will enhance him while bringing a good shopping experience to consumers. Loyalty to products or brands, while improving the accuracy and efficiency of marketing, and ultimately enhance the core competitiveness of e-commerce companies.

4. Big Data e-Commerce Precision Marketing Strategy in Supply Chain Network Information Environment

4.1 Build a Supply Chain Network Information System to Achieve Big Data e-Commerce Precision Marketing

With the support of big data technology, e-commerce enterprises build an information network environment supply chain system. The implementation of precision marketing is inseparable from data analysis. Consumer data needs to be acquired, stored, measured, calculated and analyzed. Therefore, the basis of precision marketing system is to build a consumer information database. Supply chain systems need to build a complete network system, including manufacturers and supply chain networks, distributors and supply chain networks, retailers and supply chain networks, and logistics and supply chain networks. It is necessary to focus on the core enterprises, and each e-commerce enterprise forms a coalition relationship. The use of big data technology to quickly and effectively serve the diversified needs of customers. The operation process of the supply chain is actually the process of products flowing through the supply chain. The consumption habits and consumption patterns, the user's harvest address, etc., can determine the user's economic status, and based on the user's economic level and consumption habits, thus accurately positioning the user. In the operation process of the supply chain network information system, accurately grasp the market positioning information, timely and timely feedback, and strictly control the whole process of the order. To obtain the information of the order, you can know all the information of the goods. . From the manufacturer to the distributor to the retailer to the end customer, all logistics needs to be controlled to ensure the supply of goods. In the development of e-commerce mode, enterprises need to meet the individual needs of consumers, and consumers must be involved in the design and service of products to create a good experience for users.

4.2 To Achieve Accurate Marketing of e-Commerce Online Advertising

Based on the informationization of supply chain network, if enterprises only rely on a large amount of network resources for network marketing, not only waste a lot of financial and material resources, but also easily lose the potential users, and can not bring purchasing power and conversion rate for the enterprise. Therefore, companies must pay attention to the accuracy of online advertising. Especially nowadays, many small and medium-sized enterprises are not very strong in their own strength. The scale and capital of enterprises are relatively small. Through precise marketing, the cost of enterprises can be minimized. The trend of future online advertising development in precision marketing. At present, the more common online advertising marketing methods are a bit of scams, bidding rankings, narrow advertisements, etc. Through the search and positioning of target users, so as to achieve accurate advertising, in order to play the role of advertising, to achieve the purpose of accurate marketing.

4.3 Establish an Excellent e-Commerce Precision Marketing Talent Team

E-commerce companies in the context of big data era need compound talents. The most ideal precision marketing managers should be familiar with the business knowledge of the company and understand the technical application of precision marketing. Such talents must have several years of industry marketing experience, and understand data analysis and data mining technology, clear network marketing optimization and network promotion technology. On the one hand, enterprises can hire excellent precision marketing talents through external recruitment methods and learn from their successful experiences. On the other hand, it is possible to mobilize business backbones from within the company and cultivate precision marketing talents through out-of-office training or hiring consultants. This will reduce the time for outsiders to become familiar with the business, and on the other hand, it will be convenient for future departments communication and coordination.

5. Conclusions

In summary, big data is the product of the information age. With the development of the Internet, the future big data technology will play a greater role in people's life and production. Based on the supply chain network information environment, traditional marketing homogenization, high cost and low efficiency have been unable to adapt to China's fast-developing e-commerce field. E-commerce should make full use of big data technology, give full play to the advantages of big data, deeply analyze the motives behind user purchase behavior, understand consumer behavior patterns, and tailor individualized products and services for each consumer to satisfy user personality. Demand, so that companies can truly achieve precision marketing. The implementation of precision marketing is inseparable from data analysis. Consumer data needs to be acquired, stored, measured, calculated and analyzed. Therefore, the basis of precision marketing system is to build a consumer information database. In the context of big data, marketing methods need new Innovation and transformation. Under the background of big data technology, the supply chain network marketing strategy will be transformed into individualization, differentiation and scientific. E-commerce companies must seize the opportunity to adapt to the changing trend of the times and use big data technology to actively change marketing strategies, so that they can grasp the opportunities in new business competition and seek new opportunities for survival and development.

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