Marketing strategies and methods of applying big data information analysis technology to network economy

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Abstract: With the application of big data information technology in network economic marketing, making the rapid development of network marketing, the network mall uses big data to continuously innovate in the marketing mode, and online shopping has become an indispensable part of modern people's life. With the increasing development space of network marketing, the competition between network malls has intensified, which leads to many challenges for the network mall that has achieved preliminary results. Therefore, based on the analysis of the characteristics of network marketing, this paper dissects some key problems existing in the operation of network marketing under the background of big data, and puts forward relevant optimization and improvement paths to create a better network marketing environment.

1. Introduction

In recent years, the online shopping market has developed very rapidly and has gradually become one of the main driving forces of today's social and economic development. The advent of the big data era has accelerated the development of network marketing. Network marketing is developed on the basis of Internet technology. It integrates the traditional application media, realizes the marketing objectives of enterprises and forms the process of marketing concept. However, the vigorous development of network marketing is also facing many challenges, such as intensifying the competition between online shopping malls. Therefore, in order to make it develop better, we need to analyze and dissect some key problems existing in the operation of network marketing under the background of big data, and put forward relevant optimization and improvement paths to create a better network marketing environment. Network marketing is different from traditional marketing. The traditional mode of marketing is generated in real life. Consumers are buying and selling in real market space, and network marketing provides us with a virtual space. In this space, we can also buy, sell and trade. The traditional marketing theory points out that what can meet the needs of consumers is products. Products can be divided into three parts: core products, formal products and additional products, while network marketing products can be divided into five parts: core products, general products, expected products, extended products and potential products. The traditional marketing activities are mainly spread on paper media such as newspapers and magazines and media such as television, while the online marketing activities are mainly spread through the Internet, which not only spreads more widely, but also transmits information faster. Under the network marketing environment, enterprises have the opportunity to meet the needs of higher-level consumers for personalized products. The market is divided more and more carefully, which reflects its personalized characteristics[1-2].

According to the research of Chinese Internet data research information center, an Internet related research institution, the so-called big data refers to some data that can not be processed even using the most common information processing methods or means, and these data will gradually become information resources that cannot be completed by traditional information processing methods over time, At the same time, these information resources will increase over time. According to relevant research records, the annual production of these data will reach 35zb in 2020. As an information technology giant, IBM believes that big data not only contains a large number of data and types, but also has high value and computing speed. In today's society, in the actual process of network marketing, most enterprises have the ability to count a large number of data.

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However, the difference is that most enterprises can not realize their own value for these data, while only a few enterprises can really analyze the value of these data, extract useful information and put forward truly effective network marketing means. For enterprises, the data to be processed includes not only customer information and service information, but also external market information and product sales. If these data and information are counted up, the amount of information will be very huge. For these data information, the most important thing is what means or way to deal with it. At present, the means of network marketing used by most enterprises is only to regard these large amounts of data as a resource, just sort them out, intuitively put forward the corresponding marketing means and marketing strategies, and did not really analyze other useful information. There are many ways to obtain data information, and the database system that really helps salespeople understand consumers' consumption habits so accurately is the database that enterprises need to launch and build at present.

Figure 1 Big data information analysis technology

2. Impact of big data information analysis technology on network economic marketing

First of all, the sales links are reduced. In the past, there were many links of network economic marketing. After the products leave the factory, they need to go through multiple intermediate links to reach consumers, so that the product price is increased, and consumers can't buy goods with psychological price. In the era of network economy, consumers can directly understand the relevant information of products on the network, remove more intermediate links, reduce the product sales price and provide more concessions for consumers on the basis of shortening the product delivery time. Secondly, expand the sales scope. In the past, the main sales position of products was physical stores, which limited the sales space and time of products. Moreover, most physical stores can not provide full-time services for consumers, sell goods in a certain region and time range, and can not provide comprehensive services for consumers, so the sales work is limited in many aspects. In the era of network economy, marketing began to adopt e-commerce mode. Product sales can not be limited by time and space, and can even provide consumers with cross regional services, ensure the service effect, meet consumers' needs for products to the greatest extent, bring them more new experiences and enhance their loyalty to the brand. Finally, diversified means of payment have been formed. In the past, in the process of marketing, consumers mostly used cash, credit card and bank card for consumption. With the rapid development of network technology, the mode of payment has begun to show a diversified development mode. Consumers can use WeChat, e-cash and Alipay to conduct transactions, and can clearly display information such as transaction time and location, so as to ensure the safety of transactions and enhance consumer trust in online marketing.

3. Necessity of marketing transformation in the era of network economy under the background of big data information analysis technology

3.1 Meet diversified market demand

With the rapid development of social economy, people's income and payment level continue to improve, put forward more requirements for life, and tend to personalize products. From the previous demand for value and quality, it began to change into many aspects such as brand, service, personality and culture. Under such changes, the market tends to diversify and the products are more refined. In this regard, enterprises should re plan their marketing strategies in combination with the characteristics of network economy, so as to better serve consumers, meet their diversified needs, enhance their sense of identity with enterprises, and contribute to the progress of social and economic markets on the basis of promoting the stable development of enterprises.

Table 1

	Category
	Brand
	Service
Market Demand	Personality
	Culture
	Value
	Quality

3.2 Ensure the personalization of product manufacturing technology

With the rapid development of science and technology, the high-quality elements in most products begin to converge. With the development of network technology, enterprises can understand the actual needs of consumers by obtaining and analyzing big data, and design products accordingly, which leads to the popularization of most products. At the same time, China's intellectual property system is not perfect, and people do not pay enough attention to it, so that the manufacturing technology of many products can be easily obtained by peers, and more and more products tend to be the same in performance and appearance. In addition, competitive enterprises can also obtain product sales data through network technology, which affects the brand creation effect. In this regard, enterprises should continuously improve their marketing strategies according to the characteristics of network economy, and ensure the personalization of products on the basis of protecting trade secrets, so as to achieve sustainable and stable development.

3.3 Improving market competitiveness

Under the background of network economy, the product sales of enterprises can display all kinds of product information through the network without the restriction of time and space, which increases the development pressure of enterprises. At the same time, consumers can also query the required product information through network technology, and compare the quality, price and relevant comments between products on the basis of querying similar products, so as to increase the business pressure of enterprises. Therefore, enterprises should constantly understand the actual needs of consumers through network technology, and increase publicity to improve the quality level and advantages of products, so as to gain a place in the fierce competitive market. In addition, enterprises can also timely contact consumers through network technology, establish a more smooth communication bridge and enhance their trust in enterprises, so as to ensure that enterprises can obtain more long-term development through network marketing technology

4. Network marketing countermeasures based on big data

4.1 Association rule mining marketing

"Beer and diapers" is the most typical case in network marketing. If diapers and beer are sold on

the same shelf, the sales of diapers and beer will increase significantly. For supermarket operators, they explore the relationship between the two before exploring the reasons. This is mainly because in the United States, most women are housewives. Generally, they don't go out shopping often, but choose to let their children's father buy diapers by the way through the supermarket on the way from work. Moreover, Americans like drinking. Therefore, when they see beer in the process of buying diapers, they will buy them by the way. This virtually associates diapers with beer. Therefore, from the perspective of big data, the basis of data mining is to find the correlation between two different things. In big data, independent data fragments cannot play a role. Therefore, enterprises brought into China must fully mine the correlation between data before using big data to implement network marketing.

4.2 Social network marketing

Take the sales strategy of renren.com and circle of friends as an example. In 2010, Mengniu sour milk cooperated with renren.com and held the activity of "music dream college" in different colleges and universities in China. While encouraging young people's music dream, it also advocated them to drink the milk produced by Mengniu company. Similarly, in 2014, before the launch of Xiaomi's new product, Hongmi hand, the news was gradually spread in QQ friends and QQ space. The direct economic benefit of such marketing means is that the actual sales of Hongmi mobile phones far exceeded the estimated sales. In addition to the marketing scheme mentioned above, there is also a microblog marketing of social network marketing. In 2015, "where object" was warmly sought after by the public, which also made people pay high attention to the potential of microblog marketing. The seemingly unintentional marketing initiatives mentioned above are actually enterprises' full understanding of consumers and online media in the era of big data. For example, the dream, youth and high-quality milk advocated by Mengniu milk fully meet the taste needs of young people; In addition, because the price of Hongmi mobile phone is medium, its sales battlefield is mainly concentrated in the second and third tier cities, and makes full use of the user viscosity of QQ space. The main credit for the popularity of "every object" also comes down to the timeliness of microblog communication and the personalized needs of its audience.

4.3 User behavior analysis and marketing

Fully analyze the historical habits and behaviors of consumers, and formulate sales strategies on this basis. For example, after Suning cloud business successfully acquired pptv, it independently developed the social app Yunxin. Yunxin has certain analysis ability. It can independently model consumers' past consumption ability and consumption behavior, and carry out a series of analysis, so as to provide reference and reference value for the network marketing plan to be formulated in the later stage. In addition, it can also distribute commodity advertisements to potential users of enterprises on the basis of fully dividing social interests, and such behaviors can effectively promote the conversion rate of advertising. For example, in "search behavior", users often prefer to express their intention in the most direct way, such as "how to get to the bookstore with the shortest distance from Anyang station?". At this time, Suning can attract customers with the help of commodity "labeling". Yunxin can also excavate and analyze its intention based on millions of consumer comments.

4.4 Personalized recommendation marketing

In the current era of digital information, the vast majority of information and data are provided by multimedia, and the previous print advertising has gradually withdrawn from the historical stage and replaced by new media advertising integrating multimedia such as sound, light and electricity. There are many practical cases that can be confirmed, such as QQ, microblog and wechat's "search / view nearby people" function. This is the main battlefield for sales personnel at this stage and the best medium for insight into the psychology of consumers. Personalized marketing has become an extremely key and important part of network marketing. There are also more business analysis means and tools to carry out targeted personalized marketing on the basis of full use of various personalized recommendation algorithms.

4.5 Big data marketing analysis based on modern communication tools

Website statistics is mainly used to analyze data and monitor personal webmasters, bloggers and their website managers and tripartite statistics. Through the targeted analysis of information data, we can explore the specific laws of users' access to a website, and put forward the corresponding network marketing means and measures. Store statistics is a data information statistics system specially developed and designed for Taobao's Wangpu. Through the analysis of the behavior and characteristics of relevant users visiting the store, we can master the users' personal interests and hobbies, so as to provide strong data evidence support for store commodity display. Similarly, at the current stage, wechat marketing plays a more and more key role in the marketing of modern communication network tools.

5. Conclusion

In people's daily life, the real value and role of big data are very key and important. Therefore, in order to make full and effective use of big data, the focus and direction of future research should mainly focus on the processing capacity of network marketing big data. Due to the large number of big data, how to process the data has always been an important challenge for the computer industry. Secondly, there is research on privacy protection of online marketing in big data. Most browsers will record the user's relevant browsing information, which may include the user's personal interests and hobbies. For enterprises, the above information can be used to determine the direction of product development, but for users, it is also a major challenge to their privacy protection, and the most important thing is, Most of the information is the most authentic feedback from users[3].

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