

Innovative Ideas of Marketing Model of Retailers Based on Big Data Technology

Ke Xu ^a, Jin Zhu ^b

School of Electronic and Information, Jiangsu University of Science and Technology, Zhenjiang 212100, China

^a675730560@qq.com, ^boscar@just.edu.cn

Keywords: Big data technology; Retailers; Marketing mode; Innovative ideas

Abstract: In order to solve the problem of marketing model transformation faced by retailers in the era of big data, this paper puts forward innovative ideas of marketing model of retailers based on big data technology. The innovative idea fully combines big data technology, studies the traditional marketing mode and extensive advertising mode of retailers, and puts forward the key points that must be grasped in the transformation of retailers. Based on this, the innovative idea also emphasizes the importance and feasibility of the use of consumption big data, and effectively emphasizes the application process of consumption big data and the transformation mode of retailers in the new era. The research results illustrate that the innovative idea can solve the problem of marketing model transformation faced by retailers in the era of big data, and improve the economic benefits of retailers.

1. Introduction

At present, in the context of modern society, data resources have become one of the most valuable assets. In the face of massive data resources, experts and researchers gradually began to pay attention to the application of big data and the research and development of big data technology. In addition, hundreds of millions of data resources every day also announce the real arrival of the big data era, and each of us really live in the big data era. At present, the common's life mode also presents the trend of informatization, digitization and networking. In this social context, traditional retailers are also facing transformation and upgrading. In the past, the seller's market of traditional retailers gradually disappeared and replaced by the buyer's market, which also makes the competition in the retail industry more intense. How to occupy more market share has become one of the key concerns of retailers.

2. Theoretical Basis

2.1 Big Data Technology

If you want to understand big data technology, you must first understand the concept of the word "big data". The so-called big data is one of the professional terms in the field of information science and the product of the information age [1]. Different from ordinary data, big data is mainly characterized by massive data information. On the one hand, it shows that big data has a huge data scale, on the other hand, it shows that big data covers a huge variety of information and information content. In the current social context, the data information covered by big data mainly comes from transaction data between enterprises and users, user behavior data in new media platforms and geographic location data in Internet platforms. In the era of big data, big data is equivalent to a new asset. It can also be regarded as a new thinking and method. As a product of the new era, it embodies the meaning of intelligence and wisdom. The Fig. 1 demonstrates the characteristics of big data.

Big data is so useful, but if traditional data processing tools are used, it is difficult to effectively analyze and process big data in a certain time, which makes researchers develop a tool and means specially used to deal with massive data resources, that is, big data technology. Through big data technology, the folk can quickly obtain the information they need from a large amount of data. Obviously, for enterprises, only by learning to use big data technology can they really grasp the

valuable information resources contained in big data.

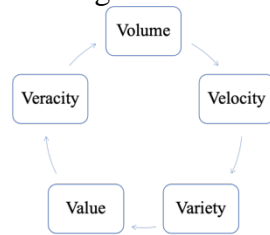


Fig. 1 The characteristics of big data

2.2 Retailers

Retailers, in essence, are a kind of intermediary. Specifically, retailers go to manufacturers or wholesale enterprises to buy needed goods, and then resell these goods to consumers. At present, with the continuous improvement and development of the retail industry, retailers not only sell various types of goods, but also provide consumers with various services [2].

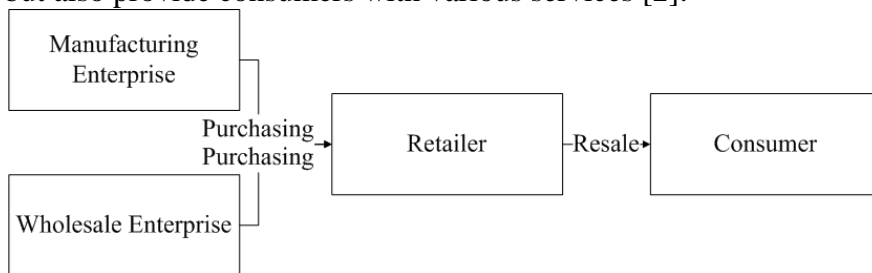


Fig. 2 Retailers

Retailers are also a kind of commercial enterprises. Their main service objects are consumers and social groups. Generally speaking, retailers sell all kinds of consumer products to consumer groups or social groups. In the folk's daily life, department stores, supermarkets and retail businesses are all retailers. In short, retailers do not produce their own goods, but resell goods. It is a commercial enterprise directly facing the end consumers. The following Fig.2 illustrates “what is smart retail” and the two stages of smart retail.

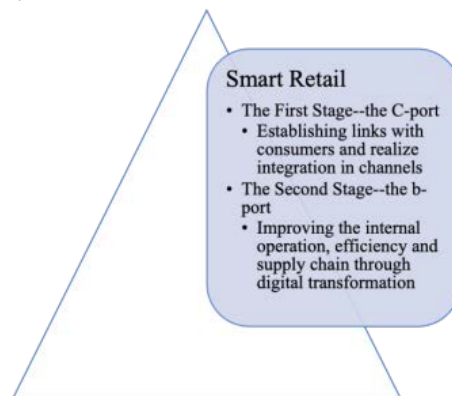


Fig. 3 Smart retail

3. Big Data and Retailers

For enterprises, it is particularly vital to establish big data thinking and use big data technology, which is directly related to whether enterprises can obtain higher economic benefits and occupy more shares. However, it is worth clarifying that the fundamental purpose of enterprises' research on big data is to study the preferences of consumer groups, so as to improve enterprise profits. Therefore, enterprises should have a certain pertinence and purpose in analyzing consumer big data, and track and study consumers' consumption habits from multiple dimensions.

From the middle of last century to now, in several decades, the mainstream format of China's entire retail industry has transformed from the initial supply and marketing cooperatives to department

stores with modern characteristics, various large supermarkets and small convenience stores, diversified shopping centers and so on. At the same time, with the rapid development of the Internet platform, the e-mall represented by Taobao, Jingdong and Pinduoduo is in the stage of rapid development. Many enterprises are also facing the transformation of offline sales mode and the expansion of online business, which directly threatens the survival and development of traditional retailers. Therefore, in the context of the big data era, if retailers want to occupy more market share and become winners in the big data business era, they must establish big data thinking and make full use of big data technology to create more value.

3.1 Capturing of the Consumption Trend

For retailers, if they want to achieve sustainable development and create a steady stream of economic benefits, they must remain sensitive to consumption trends and trends. The current consumer market is changing with each passing day. Hundreds of millions of consumer data are generated every minute. In order to mine valuable information from these massive data, enterprises must scientifically and reasonably adopt big data technology to collect and analyze the trends and trends of the consumer market, and grasp the consumer behavior preferences of the target consumer groups.

Specifically, retailers can collect the transaction data of the target consumer groups, the types of goods or services purchased, and the specific conditions of the goods or services purchased, so as to optimize and adjust the products and services they sell, so that these products and services can meet the tastes of consumers.

3.2 Establishment of the Precision Marketing Model

Retailers do not need to produce their own goods. What they need to do is to go to manufacturers or wholesale merchants to buy goods for resale to consumers. Therefore, for retailers, the key to determine their own economic benefits lies in how to capture market trends, how to accurately determine the target consumer groups and how to make scientific and efficient marketing decisions. These problems need to analyze and study the massive consumer market data and consumer group data. Obviously, only by fully mastering the consumption behavior habits of the target consumer groups and the current trend of the consumer market can retailers make scientific and reasonable marketing decisions and arrange relevant procurement matters [3]. Moreover, making full use of big data technology can not only improve enterprises' own economic profits, but also improve consumers' consumption experience, so as to improve consumers' conversion rate and reduce marketing costs. At the same time, through big data technology, retailers can also provide them with preferential information of goods and services that may be of interest according to the consumption habits and personal preferences of the target consumer groups, so as to attract more consumers to buy the goods and services of retailers. The following Fig.4 illustrates us the application of big data in retailer, which can tell us that the importance of big data towards the development of retailer.

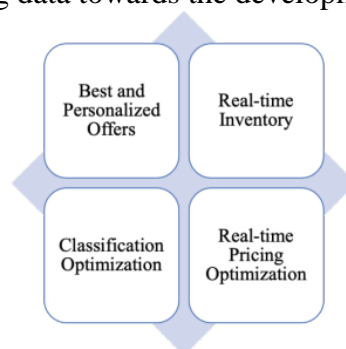


Fig. 4 Big data and retailer

3.3 Realization of the Transformation and Upgrading of Retailers

At present, with the rapid development of science and technology, the Internet platform has become one of private individuals' daily consumption places. For traditional retailers, in the Internet

era, only by conforming to the trend of the times and realizing the transformation and upgrading of sales model can they achieve sustainable development. In the face of rapid transformation and upgrading, traditional retailers need to attract more high-quality information science and technology talents to complete the transformation and upgrading through big data analysis and research.

4. Innovative Ideas of Retailer Marketing Model in the Era of Big Data

At present, the changes in the consumer market are changing with each passing day. For each enterprise, timely capturing the market trends and consumers' consumption habits and personal preferences, and optimizing and reforming its own marketing mechanism are the main ways to ensure that it can stand firm in this increasingly fierce consumer market. The advent of the Internet era and the rapid development and wide application of information science and technology are quietly changing private individuals' daily lifestyle and consumption habits. If retailers still adopt the traditional marketing model, they will inevitably suffer an unprecedented huge impact. Therefore, in the Internet era, retailers must constantly strengthen their big data thinking, apply the big data thinking to the links of purchasing and selling goods, closely follow the trend of the times and market trends, seize the opportunities of the times and seek new profit points and transformation directions.

4.1 Customized Products or Services

For retailers, by using modern information technology scientifically and reasonably, enterprises can understand the consumption behavior habits and personality preferences of consumer groups through the "clues" of users on the network, such as users' spatial logs, social media, forums, search engines, transaction data, etc. Through customer big data, retailers can scientifically grasp the market trend, formulate efficient and scientific marketing strategies, and even "know themselves better than users", meet the different consumption needs of different consumer groups, and then obtain higher profits under the background of this buyer's market [4].

Optimizing and adjusting the enterprise's own marketing strategy through the analysis results of customer big data is equivalent to that consumers personally participate in the design of products and services and put forward targeted suggestions for the improvement of products and services. It is also equivalent to that the enterprise has a specific direction for improvement and promotion. Therefore, under the background of the changing consumer market, retailers must make scientific and rational use of customer big data in order to seize the opportunity of the times and improve their own economic benefits.

4.2 Intelligent System of Omni Channel Retail and Operation

At present, with the advent of the Internet era, private individual's living habits gradually begin to change, among which the consumption habits have changed greatly. In the past, all children and adults were used to shopping and experiencing services in offline stores and thought that goods and services on the network were mixed and difficult to distinguish. However, with the advent of the era of online shopping and the gradual standardization of e-mall, all men and women in all works began to enjoy buying goods and experiencing services in up stores. At the same time, with the rise of e-commerce giants such as Taobao, tmall, pinduoduo and jingdong, they are favored by all men and women in all works, especially young groups, with affordable prices and diversified goods and services. Obviously, the growth of online store sales has a direct impact on the sales of offline stores. More and more offline physical stores are scarce, and even many offline stores have declared bankruptcy. This paper holds that for retailers, the traditional business model of relying only on offline sales has been difficult in this digital media era. We must strengthen the expansion of online channels, strengthen the linkage and integration of online stores and offline stores, and build an omni channel retail system.

The so-called Omni channel retail system is that enterprises adopt multiple retail channels for sales as much as possible (including online stores, offline stores and related sales platforms), so that consumer groups can consume and experience in multiple channels, and meet the comprehensive experience needs of consumer groups from multiple dimensions, such as entertainment, social interaction, etc. In other words, Omni channel sales is a sales model with consumer experience as the

core. It is a new sales model that allows consumers to buy the required goods and services at any time, anywhere and in any way.

4.3 Consumer Precision Marketing Model

Under the traditional retailer marketing mode, enterprise managers are often very confused. They often do not understand the bias of consumer groups, which makes it difficult for enterprise managers to formulate efficient marketing strategies, let alone obtain rich economic benefits.

Moreover, in today's society, the common's consumption habits have also changed greatly. They are no longer the common who only understand goods from newspapers, magazines and TV advertisements, nor will they make simple purchase decisions just because of the careful design of advertisements, the superior geographical location of stores, the gorgeous decoration of stores and the promotion of sales personnel, the folk have begun to learn to actively search for relevant consumption information, and can exchange purchase experience and use experience with other consumers on major social networking platforms. In the Internet age, consumers are not only active searchers, but also active sharers. In other words, they can be called promoters of enterprise products and services [5]. This also illustrates that the traditional extensive advertising model has been difficult to meet the needs of enterprise development under the background of Internet economy.

Therefore, in the current social context, enterprises should adopt a new marketing model oriented by consumer experience, understand the real needs of different consumer groups through consumption big data, and subdivide consumer groups according to their consumption habits and personal preferences, so as to effectively promote different consumer groups, Ensure that the marketing investment and marketing effect of enterprises are optimal, which is the emerging product of this era - precision marketing.

5. Conclusion

In the era of big data, big data has become a valuable information asset. For enterprises, big data can build a communication bridge between customers and enterprises, and enable enterprises to optimize and adjust according to the needs of users. There is no doubt that the application of big data is particularly fundamental in the process of transformation and upgrading of retailers. Through the analysis and mining of big data, retailers can comprehensively and systematically understand the current needs of customers and quickly capture the market rules, so as to customize products and services to meet their needs for different consumer groups and obtain more economic benefits.

Therefore, in the era of big data, if retailers want to achieve sustainable development, they must establish big data thinking, make full use of big data to obtain market information, so as to make decisions to comply with the market development trend and obtain more market share.

References

- [1] X. Gao and J. Cai, Optimization analysis of urban function regional planning based on big data and GIS technology, *Technical Bulletin*, vol. 55, no. 11, 2017, pp. 344-351.
- [2] Li, Ying. "Adaptability Analysis of System for Retail Chain Enterprise Management." 2015 International Conference on Intelligent Transportation, Big Data and Smart City, 2015, pp. 63–66.
- [3] Ge, Lu, and Chenggang Li. "Exploration of Garment Enterprise Marketing Model Based on 'New Retail.'" *Modern Economy*, vol. 10, no. 1, 2019, pp. 227–236.
- [4] Gawankar, Shradha A., et al. "A Study on Investments in the Big Data-Driven Supply Chain, Performance Measures and Organisational Performance in Indian Retail 4.0 Context." *International Journal of Production Research*, vol. 58, no. 5, 2020, pp. 1574–1593.
- [5] Hwang, Illhoe, and Young Jae Jang. "Process Mining to Discover Shoppers' Pathways at a Fashion Retail Store Using a WiFi-Base Indoor Positioning System." *IEEE Transactions on Automation Science and Engineering*, vol. 14, no. 4, 2017, pp. 1786–1792.