

## Research on the Core Mechanism of Digital Marketing Communication Effect Based on Big Data Framework

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**Keywords:** Big data; digital marketing; communication effect; core mechanism

**Abstract:** With the rapid development of the global Internet, online shopping and online marketing have become a fashion. At the same time, online marketing is a brand-new marketing model that adapts to the era of big data in the new era. The so-called digital marketing refers to a marketing way to achieve marketing goals by means of internet, computer communication technology and digital interactive media. This marketing method gives full play to the great role of modern communication technology, puts the whole marketing process under the control of modern communication technology and computer technology, and makes the nerves of enterprises spread all over every corner of product marketing. The network is updated all the time, which also makes the network marketing mode in enterprises constantly change and update. The establishment of network marketing mode under big data is a prerequisite for some enterprises to carry out network marketing business. This paper studies the core mechanism of digital marketing communication effect based on big data framework, and explores new ways of marketing communication under digital background.

### 1. Introduction

In the era of big data, digital marketing is not only a revolution of technical means, but also contains a deeper concept revolution. It is the synthesis of target marketing, direct marketing, decentralized marketing, customer oriented marketing, two-way interactive marketing, remote or global marketing, virtual marketing, paperless transaction and customer participation marketing [1]. At present, the continuous development of science and technology level in China has led to the change of market trade means [2]. People can use mobile devices to trade, which helps the economic growth of trade industry. Information collection and analysis and utilization ability in the era of big data play an important role in economic development. Mass data application provides new opportunities for marketing transformation [3]. The rapid development of new media not only completely changes the marketing communication environment, but also leads to the great changes of marketing communication mode and communication law, which has led to the "interactive integrated marketing communication" [4]. The establishment of network marketing mode under big data is the precondition for some enterprises to carry out network marketing business. The network is updating every moment, and it also makes the network marketing mode change and update constantly. In order to give full play to the interactive advantage of new media, the new media communication strategy should adopt the data-oriented consumer segmentation strategy, which requires enterprises to use various means to collect individual information, establish databases and implement the consumer communication strategy of "information intensive" [5].

"Internet plus" is a deep integration of the Internet's innovation achievements with all sectors of the economy and society, promoting technological progress, efficiency improvement and organizational change, enhancing the innovation and productivity of the real economy, and forming a wider economic society new form [6], which is based on the Internet infrastructure and innovation elements. At present, network marketing has been widely used by Chinese enterprises in the function modules of information search, online information release, online business situation investigation, sales channel development, network brand promotion, customer relationship management, resource integration and so on. Interaction becomes the basis of measuring the effect of digital marketing communication, and the core of digital communication marketing effect

changes to user participation incentive [7]. At present, the development of market industry cannot be separated from information data provision. For example, e-commerce can use data business analysis to monitor the industry in real time, bring new customer resources to relevant industry enterprises, improve the sales volume of enterprises and enhance the market competitiveness of enterprises [8]. The user participation becomes the key to achieve the effect of digital marketing communication under the interactive logic. All activities of digital marketing communication should be carried out around the participation incentive, and the incentive to the user participation constitutes the core mechanism of the digital marketing communication effect. In the field of network marketing, the application of big data as a kind of enterprise data strategy will have a positive impact on the development of network marketing [9]. This paper studies the core mechanism of digital marketing communication effect based on big data framework, and explores new ways of marketing communication in the digital background.

## 2. The core mechanism of digital communication marketing effect

### 2.1. User participation is the key to achieve the effect of digital marketing communication

The interaction in the digital age can be attributed to human-computer interaction, interpersonal interaction and the interaction between people and information. Communication and interaction beyond time and space is the essential feature of network communication. Internet technology and digital technology have already realized the two-way interaction and information exchange between media and audience. Big data literally means a large amount of data, and its real meaning is to use modern advanced computer technology to deal with a large amount of data that is difficult for human or cannot be processed by conventional processing technology. The decentralization and spatiotemporal of digital media interaction firmly integrate communication and marketing. Consumers can easily interact with brands and complete a series of marketing activities in a short time. In the modern network marketing, many enterprises do not lack of data resources in the process of marketing. The most important problem is that there are too many data, which is difficult to deal with. Enterprises in the economic business, the need for all aspects of statistics, but also for customers, market data centralized statistical analysis, these data statistics together to form a large number of data, enterprises how to make such a big data comprehensive and effective management and utilization, for many enterprises, there is no doubt that is a very big problem and challenge. In the digital context, this is both an opportunity and a severe challenge [10]. The theoretical model of customer behavior intention is shown in Figure 1.

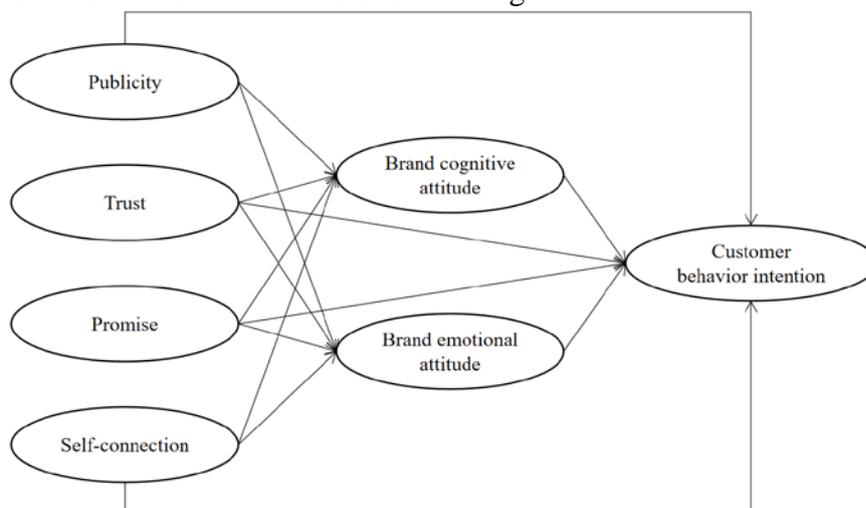


Figure 1 Theoretical model of customer behavior intention

In order to achieve the expected results of marketing communication, it is necessary to have insight into consumers' behavior. "Interaction" not only meets this demand, but also can constantly update and deepen the cognition of brand in marketing activities, thus achieving deeper psychological communication between brand and users. Network marketing in the Internet era

needs a lot of data, and big data is used to make choices for marketing schemes within enterprises. Therefore, computer big data processing technology is very important. Digital marketing communication has greatly lowered the threshold for consumers to enter, and consumers have found the right to participate and speak in the interaction. The boundary between audience and disseminator is no longer fixed, and everyone is both the receiver and disseminator of information.

## 2.2. The incentive of participation is the core mechanism of digital marketing communication

Enterprise marketing management is the science and art of choosing the target market and acquiring, retaining and improving customers by creating, delivering and disseminating high quality customer value. The traditional communication media has not formed a two-way communication mechanism, which greatly limits the users' desire for communication. With the awakening of users' awareness of communication and participation, the demand for interaction becomes stronger and stronger. Marketing organizations should arouse users' desire for interaction, mobilize consumers' enthusiasm for participation, make them create and contribute in participation, and better expand the effect of digital communication marketing. In the era of big data, due to the characteristics of platform and audience fragmentation of communication channels, the existing consumer research methods can not continue to ensure its authenticity and effectiveness, and the error and cost of market sampling survey method are out of control. Therefore, in the whole marketing system, the research on audience psychology, the effect of media delivery, and the evaluation of marketing effect can not rely on the traditional marketing organizations. We must deeply realize that the starting point of motivation is the needs of users. According to Maslow's hierarchy of needs theory, we should determine the core marketing theme that meets the needs of users, gradually raise the material needs to the spiritual needs, and let the motivation go Leading behavior in order to meet the deep needs of users. In the era of big data, enterprises can collect all kinds of consumer needs with the help of big data, and carry out integrated marketing by using network marketing theory.

Marketing communication should be combined with modern big data analysis technology to have a clearer grasp of users' preferences, needs and purchasing power. Finally, the content should be continuously optimized and innovated to find marketing highlights. Figure 2 shows the pattern of consumer buying behavior.

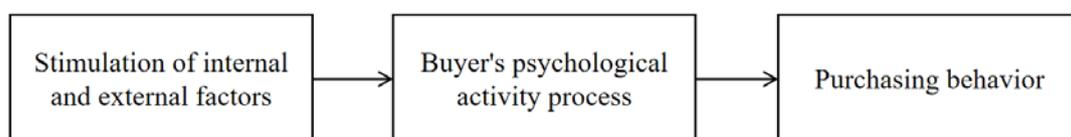


Figure 2 Consumer buying behavior pattern

The traditional marketing mode realizes the soft marketing mode, mining valuable information through massive databases, helping enterprises analyze consumers' preferences through data, changing product performance according to consumers' needs, and promoting enterprises to expand marketing market. The opportunities brought by big data to enterprise marketing are to provide personalized service to customers, to cross-sell products through the analysis of sales data, and to establish long-term friendly relations with customers. As far as the digital marketing communication effect is concerned, we must pay attention to the communication and exchange with users, give timely feedback, answer users' questions, eliminate their participation doubts and continuously expand the number of users. Enterprises should correctly and comprehensively understand the impact of big data on marketing, give full play to the advantages of big data technology, explore effective marketing strategies, and at the same time deal with the risks brought by big data to marketing, so as to avoid the adverse impact of big data application on enterprise marketing.

## 3. The research on the network marketing mode under big data

With the development of science and technology, computer technology has been applied in the network marketing model, which can summarize a lot of useful information and make it a big data network marketing model. In the big data network marketing mode in the Internet era, if marketing can run normally, it is necessary to constantly explore new network marketing modes. Personalized recommendation marketing of big data is also a very important mode in network marketing. In many social activities, some large social platforms, such as forums, communities and microblogs, users can completely build their own social circle by their own hobbies, establish their own friends circle, and freely publish the information they want to publish in their friends circle. The traditional mass communication effect mechanism is a controllable communication effect from top to bottom, while the effect of digital marketing communication presents a parallel interaction and uncontrollable effect between users' spontaneity and communicators' guidance [11]. By using the statistical analysis of the data in the Internet, this paper analyzes the law of users' use in the network, and adjusts the corresponding network marketing plan by using the analysis results. Business intelligence is not only a software product, but has become a management idea so far. It can comprehensively, accurately, timely and deeply analyze and process data, and enable enterprise decision makers to make rational decisions. Therefore, it is used by many enterprises in daily operation management such as customer behavior analysis, market forecasting and marketing strategy formulation.

Although the user's access threshold is lowered under the digital background, the complicated participation path or process is still an obstacle that restricts the user's participation, so the marketing structure also needs to simplify the user's participation path constantly. The product mode positioning is shown in Figure 3.

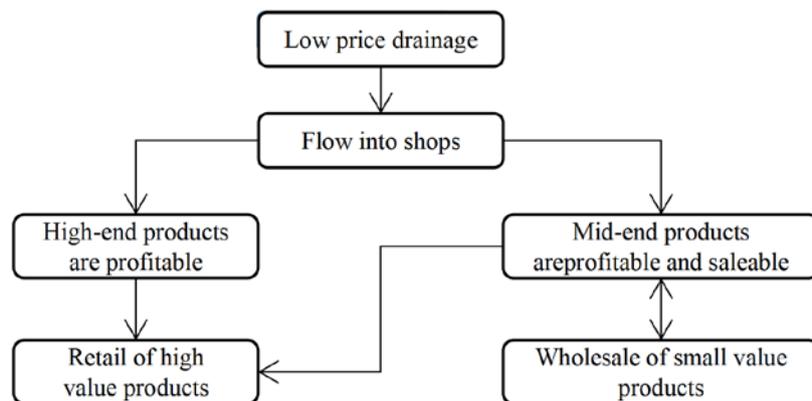


Figure 3 Product model positioning

With the development of big data era, businesses need to spend more time sorting out massive information, and some information will have a negative impact on businesses. There is a huge amount of data in the era of big data, and merchants in the era of big data improve data integration based on data prediction. Challenges faced by marketing in the era of big data include endless spam and security problems in information transmission. Under the current background of digital existence, part of the power of marketing communicators is being transferred to the ability of users to participate in information dissemination, and this ability and level of information interaction has become the basis for measuring the effectiveness of digital marketing communication. The key to the success of online marketing is to use the potential of information technology to analyze the best activities of enterprises, so as to occupy a favorable position in the value chain, fundamentally readjust the process of value creation, and achieve win-win for enterprises, partners and customers. The traditional effect process is a chain reaction process in which marketing information is exposed through media and reaches consumers, then consumers form a cognition of products or brands, and finally influence consumers' attitudes and purchasing behaviors.

#### 4. Conclusions

Extensive network marketing can greatly reduce the cost caused by advertising, so that enterprises can get better benefits and greater profits. Big data has penetrated into people's lives. To make full use of big data, enterprises should conduct reasonable marketing according to these online habits and contents of users. Big data not only provides more targeted marketing solutions for media marketing, but also can achieve consumer injustice, promote high-quality communication and coordination between marketers and consumers, and reduce ineffective investment of marketers. The core mechanism of digital marketing communication effect is participation incentive, so relevant marketing organizations or brands that need to plan marketing activities should follow this core mechanism. Under the big data, merchants' marketing should face massive data. Enterprises should seize the opportunity of the big data era to improve their marketing strategies. Relevant personnel of enterprises should innovate marketing management, increase marketing connotation, improve management system, standardize their own behaviors and achieve their marketing performance goals. Through the application of big data in network marketing, we can comprehensively deconstruct the relevance of users' social networks, tap the potential needs of customers, effectively segment the market, gain accurate insight into customers, and push the right information to the right customers through the right channels at the right time.

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