# A Study on the Application of Big Data in Sales Forecast

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**Abstract:** To solve all kinds of problems in sales forecasting in our country, we must fully understand the impact of traditional sales forecasting at present, and understand the innovative development that big data will bring to sales forecasting through case analysis, which is also the purpose and significance of this paper. Firstly, this paper introduces the background and importance of the topic; secondly, it studies the new characteristics of sales forecasting in the big data environment, and discusses the current situation based on the analysis of big data; thirdly, it focuses on the impact of significant data sales forecasting, and emphasizes the opportunities brought by big data technology while analyzing the existing problems in China at the present stage; finally, combined with the current situation, it puts forward the suggestions for the development of big data technology Strategy.

### 1. Introduction

Under the background of deepening economic globalization, the overall trend of informatization and networking has also been strengthened [1]. The era of big data has become an essential environmental background that many enterprises have to face in the development process [2]. Under the overall promotion of technological innovation, economic transformation is imminent. As a new type of technology, big data is bringing profound changes to people's daily life and work, and also affects the regular operation of all walks of life [3], so is the sales forecast. In enterprise management, sales forecasting plays a key and fundamental role, which is closely related to the business plan of the enterprise and plays an irreplaceable role in the acquisition of economic benefits and long-term sustainable development of the enterprise [4]. Effective sales forecasting can make managers fully understand the internal information and operation status, and help them make scientific and democratic decisions Improve and realize the long-term and sustainable development in the future. However, the traditional sales forecasting model in our country cannot meet the inevitable requirements of the development of the times [5], especially in the problem of untimely data updates and incomplete information. In this context, there are often wrong risks in all kinds of decisions, which have serious adverse effects on the improvement of the overall sales forecasting level, and even harm the enterprise value and the realization of global interests [6]. Therefore, the traditional sales forecast must realize its creative development, only in this way can it meet the requirements of the economic environment, put aside the shackles of the conventional model, grasp the technical and hardware support brought by the development of big data technology [7], and provide accurate information for the management of political politics through the combination of the application of new technology and sales forecast practice, In order to improve the economic benefits of enterprises, they are invincible in the fierce competition [8].

# 2. Basic Concepts of Big Data

After analyzing the current theories related to big data in China, it can be found that in the past two years, big data has become a hot word, whether, in real life or the Internet, big data has become a hot topic of concern, emerging service industries are emerging, cloud computing, social networks, etc.[9]. have become an essential part of people's daily life, and also the society is moving forward One of the crucial driving forces of step, the overall data scale presents a primary trend of

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continuous expansion. Human society has entered a new era of information explosion. The concept of big data as a whole has the essential characteristics of abstraction [10]. It mainly refers to the scale, the quantity is relatively large, and the mass is one of its most critical features. The definition of big data by research institutions mainly includes the following aspects: big data can also be called massive data, which primarily refers to the information assets with a large amount and rapid growth, and various information types, which must be processed through a new processing mode. The decision-making form and insight level of asset information formation are high [11]. In the process of social development, big data has become an essential aspect of social concern, and government agencies have also made healthy guidance for its progress through the introduction of relevant policies. Compared with the previous data, the scale, speed, and processing difficulty of big data are significantly different, which also puts forward higher requirements for the traditional mainstream software [12].

## 3. Challenges Faced by Enterprise Sales Forecast in the Era of Big Data

Firstly, with the rapid development of big data technology, security also faces many challenges, especially in the backward sales forecasting technology. Although the breakthrough of time and space limitations has been achieved, many business data and enterprise development secrets are facing the risk of being leaked under the attack of hackers. Privacy and security issues are important aspects that must be paid more attention to at present [13].

Secondly, the vast data and various kinds of characteristics make the specific application, storage, mining, and other practices of big data face many problems. Besides, there are also problems in the information construction of our country, such as weak infrastructure, slow daily update speed, which are not conducive to the play of advantages. However, the real application field of big data technology is relatively narrow, which is reflected in the resources in the aspects of source management and data mining, only through the breakthrough of practical application can we achieve the established operational goals and values [14].

Thirdly, the transformation of management mode is facing significant challenges. After analyzing the traditional management mode, it can be found that the value-based sales system is one of the critical goals of the current sales forecast [15]. To achieve the ultimate goal of intelligence and implementation, information-based management has become an essential goal of the existing shareholders. In the new sales system, the staff mainly focuses on the creation of value, which can significantly improve the status of the sales department and highlight the overall strategic core significance. With the support of big data, the sales forecasting model has also changed dramatically, creating the necessary technical basis for its successful transformation.

Fourthly, in the process of specific sales data analysis, sales personnel may also face many challenges, which is one of the critical problems existing in sales forecasting. The so-called sales data analysis mainly refers to the information mining conducted by relevant staff based on component data to find the most valuable information. Although the development of big data technology can realize the expansion of information acquisition scope, it also puts forward higher requirements for staff's work and professional skill level. The overall difficulty presents an underlying trend of increasing. Advanced IT technology is still a significant difficulty for some staff, bringing about the specific application of big data technology and the exertion of the function of analysis ability Serious adverse effects.

## 4. Countermeasures to Improve Big Data in Sales Forecast

## 4.1 Cultivates Significant Data Management Awareness

Under the background of the development of the times and social progress, human society has entered a new era of information explosion. The emergence of big data technology has brought profound impact on people's current daily life, not only in the aspects of work and life form, but also in people's thinking mode and specific consumption, which has changed dramatically, bringing

new opportunities to some enterprises Encounter, but also for their future brought more obstacles, how to achieve their own competitive strength under this background, and seize market share is a problem in front of many enterprises. However, at present, most enterprises in our country do not realize the critical value of big data technology, and the change of great environment has not been paid enough attention, which makes the overall advantages of big data cannot be played. Sales forecasting plays a vital role in the development of enterprises, so we must pay more attention to the application of big data technology in sales forecasting, and realize the establishment of significant data awareness in the whole range by cultivating management and high-tech talents.

The management of big data technology is one of the critical parts of enterprise management. To solve the problems brought by big data better, we must pay more attention to the analysis and control of big data. Through the advanced training program, all kinds of managers have the awareness and ability of big data. From the traditional way of macro-economic analysis and decision-making based on experience and statistical methods, as well as the form of internal operation decision-making of enterprises, to the idea of data-driven management based on real-time data, to effectively improve the level of scientific decision-making and enterprise management. The past and present strategy description, organization information, management system, and management change process record of enterprises and other enterprises in the industry belong to management data. Once the breakthrough is big data, it can provide timely and practical support for organization change; combined with database and model analysis, it can play tremendous energy.

# 4.2 Establish Sales Forecast Information System

Under the background of the continuous improvement of the information level, the degree of a global network is also deepening. To better adapt to the challenges of economic development, the establishment and growth of the sales forecast information system have become the critical issue of the next stage of construction of our government. Not only the network information environment should be considered, but also the sales system should be realized through the establishment of big data platform, high-quality talents will be absorbed, specifically the establishment and improvement of the network information environment. The internal situation of the enterprise plays a vital role in this process. At the same time, national policies should be taken into consideration to grasp the characteristics of the industry, indeed. Of course, the current working capital should be uniformly and effectively controlled through the way of unifying the sales system, to improve the utilization efficiency and ensure the integrity of the money besides, the establishment of a central data platform is also an inevitable requirement of infrastructure.

With the support of big data technology, enterprises can establish and improve the central platform, manage the sales data and other non-commercial data in a unified way. At the same time, with the support of key technologies such as data mining, they can extract all kinds of valuable information from it. Only in this way can they provide necessary information and data support for the later management and development of enterprises, And to ensure the accuracy, objectivity and integrity of the information to create the preconditions required for the effectiveness of the sales forecast work, to control the possible potential risks within a specific range, is also an critical information support and guarantee for the long-term sustainable development of the enterprise; in addition, it can also improve the information water of the overall staff by training professional talents Ping. Based on the establishment and improvement of enterprise management information system, it helps enterprises to select more valuable data and information, which plays a vital role in improving the scientific level of enterprise management. Of course, in the context of the new era, the specific content and connotation of sales data show the essential characteristics of diversity. In addition to the sales report data, various user feedback, and different information related to enterprises in social networks are crucial sources and public opinion support for enterprise decision-making. Comments on electronic websites and multiple e-commerce platforms are vital information, and also enterprise sales the data in the prediction process, however, it shows strong nonstructural characteristics as a whole. Based on the analysis of such data, we can grasp the trend of consumers and market, and provide necessary information support for the later decision-making of the enterprise. Based on the combination of the current business situation of the enterprise, we can achieve the ultimate goal of precise management.

### 4.3 Build a Sales Forecast Intelligent System

A considerable amount of information and low-value density is one of the essential characteristics of big data. How to select the most valuable information from the massive news is a problem in front of enterprises. The emergence of business intelligence can achieve accurate data mining and information positioning, and provide necessary information support for its later decisions, which is also one of the embodiments of the core application of big data technology.

#### 5. Conclusion and Discussion

The arrival of the era of information explosion is one of the inevitable consequences of big data technology. To win in the market competition, enterprises must pay more attention to information updating and emphasize the critical role of sales forecasting. As the core part of enterprise management, there is a close relationship between the sales forecast and the operation and management of the enterprise. How to realize the value of business intelligence and transform various valuable information through the application of new technology is a difficult problem for the sales forecasters. Only the close combination of management and business intelligence can achieve the established objectives set by the enterprise in terms of operation and management, mainly including the following aspects: first of all, it is necessary to strengthen the management's attention to specific management knowledge, which is also the inevitable requirement of its long-term sustainable development; in addition, it is also necessary to incorporate the actual operation of the enterprise In consideration of the scope, the value of big data can be brought into play through the rational use of the sales forecasting system. Of course, the improvement of the staff's quality is also one of the essential preconditions for the value of big data. The role of the individual initiative of the management in the cost is irreplaceable. After the establishment of the big data support platform, the decision-making ability should be strengthened Type, realize the rational use of data, honestly play the mutual combination of human intelligence, and achieve the goal of sales forecast based on the combination of machine rationality and human sensibility.

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