Conduct data analysis of large-scale marketing for wechat market

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Abstract. Using wechat platform to carry on the development and design of data mining, and it is applied to the embedded bus, so that the enterprise marketing activities can get better results. Through the establishment of a large number of marketing data collection and scheduling, through the analysis and analysis of a large number of marketing data, the establishment of a data mining system for massive marketing data, the use of big data analysis technology to analyze and analyze massive market data, the use of this algorithm to establish a large number of market data collection and adaptive sorting mode. The semantic feature extraction algorithm is used for matching and fuzzy recognition of a large number of market information, and the C-means clustering algorithm is used for classifying and analyzing a large number of market sales data to realize the extended query and real-time mining ability of large-scale market sales data. Using wechat platform to carry on the development and design of data mining, and it is applied to the embedded bus, so that the enterprise marketing activities can get better results. Simulation experiments show that this system can efficiently mine large-scale marketing data and has good parallel sorting performance and stability.

Keywords: wechat; Massive marketing data; Dig; System design; Fuzzy C-means clustering

1 Introduction

Today, with the rapid development of mobile APP technology, the marketing of mobile phone, mobile phone, mobile phone and other apps has become a major development trend of mobile APP applications in the future. Correctly and efficiently explore a large number of marketing data, improve the concurrency of large-scale marketing data, the optimal organization network function, the optimal sales network, the optimal information management and control; Wechat is used for data mining, regular statistics of sales data, so as to improve the sales ability of enterprises, and data mining technology is deeply discussed.[2]

At present, a large number of marketing data analysis methods, mostly based on multi-source data to establish information service database, through QoS analysis, marketing data correlation analysis and analysis combined with the use of big data

A. Rauf et al. (eds.), *Proceedings of the 3rd International Conference on Management Science and Software Engineering (ICMSSE 2023)*, Atlantis Highlights in Engineering 20,
https://doi.org/10.2991/978-94-6463-262-0_10

integration method, to improve the enterprise's marketing data analysis and evaluation; In this paper [4], we adopt a method of semantic ontology and correlation orientation to conduct parallel sorting and mining of large-scale marketing data, so as to achieve the purpose of fuzzy orientation of marketing data. In order to solve the above problems, this paper proposes a set of wechat based large-scale marketing data mining technology, using big data technology for large-scale marketing data collection and management, the establishment of a large number of market data collection and adaptive sorting mode, using semantic feature extraction technology for a large number of market data data information comparison and fuzzy recognition. Through the fuzzy correlation analysis of a large number of data components, the fuzzy C average clustering algorithm is applied to the massive marketing data mining, which realizes the expansion and real-time analysis of a large number of marketing data. Using wechat platform to carry on the development and design of data mining, and it is applied to the embedded bus, so that the enterprise marketing activities can get better results. Through the simulation experiment, the effectiveness of the system is obtained.[3]

2 Distribution model and feature extraction of massive marketing data

2.1 Distribution model construction of massive marketing data

First of all, it is necessary to establish a large-scale marketing data distribution mode, use big data technology to optimize and manage a large number of marketing data, and establish a large number of marketing data collection and scheduling modes [5].As shown in Figure 1:

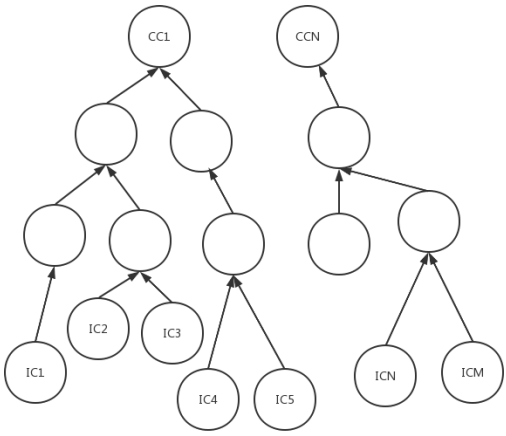

Fig. 1. Conduct data analysis of large-scale marketing for wechat market

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$$\mathrm{y(k)} = \mathrm{s_1(k)} + \mathrm{n_1(k)};\quad \Phi\,\mathrm{(k)} = \mathrm{s_2(k)} + \mathrm{n_2(k)} \tag{1}$$

$$s_1(k) = AA_H e^{j(k+\theta_H)};\quad s_2(k) = AA_H e^{j(k+\theta_H)} \tag{2}$$

Among them, the first p elements, AH, AAH,AHB, θH and θHB, are numerical attribute values respectively. The feature distribution set of massive marketing data is represented in triplet form:

$$V_0(k) = \begin{cases} \gamma(1)\gamma^T \\ 1+\rho \end{cases} \tag{3}$$

$$\gamma\ \mathrm{(k)} = \mathrm{M(k)} - \mathrm{M(k)x(k|k-1)} \tag{4}$$

Under the association constraint, the paper combined the fuzzy C-means clustering method to mine the massive marketing data, and obtained the marketing data satisfying the Wigner-Ville distribution. The joint distribution feature quantity of ontology concept set si and data concept set qj is calculated in the Wigner-Ville distribution space to carry out large-scale heterogeneous marketing data reorganization .

2.2 Feature extraction of massive marketing data

XTX refers to a set of data semantics.Obtain the distribution matrix XTX of the semantic concept set of massive marketing data, and combine the scale decomposition method to reduce the dimension of the massive marketing data output by classification , and establish the detection model of massive marketing data.

3 Optimization of data mining algorithm

Using big data technology to optimize and manage a large number of marketing data, the algorithm of data mining is improved, and a new object-oriented data mining technology is presented.At present, large-scale marketing big data analysis methods mainly use multi-source data to build information service databases, and through combining with QoS prediction, carry out intelligent data evaluation, analyze the correlation between data, and use big data fusion and cluster analysis to improve the ability of intelligent data analysis and evaluation. In literature [4], a fuzzy directionality mining of marketing data is proposed based on semantic ontology model and relevant directionality feature extraction. Relevant research on marketing data mining methods has attracted wide attention [1].

Through the classification of a large number of sales data, the use of consumer habits of their sales process statistics, combined with descriptive statistics and market monitoring, real-time sorting of a large number of market data, through the dynamic equilibrium method, the optimal product information. The trust weight between consumer A and B, Bl (n) is the increasing factor of marketing data. On this basis, on the basis of wechat, the marketing data of the enterprise was systematically optimized.

4 Development and design of the system

By integrating Tencent PXI communication protocol with wechat platform, the large-scale marketing data mining is completed. In the embedded development environment, the cross-compilation software is used to compile the data mining, and the special short distance communication (DSRC) technology is used to complete the large-scale marketing data mining, and STM32F101xx is used as the core. Built a lot of marketing data mining AD module, and the use of this module to achieve the network data collection and real-time data processing, and applied to the wechat platform, to achieve the application of the network.

The cross-platform C++ application program was adopted to carry out massive marketing data, and the software development of marketing data mining system was carried out on wechat platform to complete the software development and design of the system.

5 Simulation experiment analysis

Through simulation tests, a large number of market data were collected and processed, SPSS19.0 was used to collect and collect a large number of market data, Olivetti-Oracle was used to study marketing data, KTT data set was used as a training sample set, with 50,000 kB of data. 200-800 data, 12 days of statistical processing.The horizontal coordinate is: sampling amplitude.

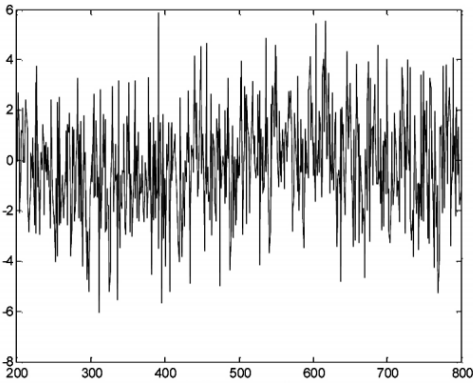

Fig. 2. Marketing data statistics

The sampled data in Figure 2 is taken as the research object to extract the component feature quantity of massive marketing data. Semantic feature extraction method is adopted to carry out information matching and fuzzy detection of massive marketing data. Data mining is implemented in wechat platform, and the mining output is shown in Figure 3.The horizontal coordinate is: marketing data mining output amplitude

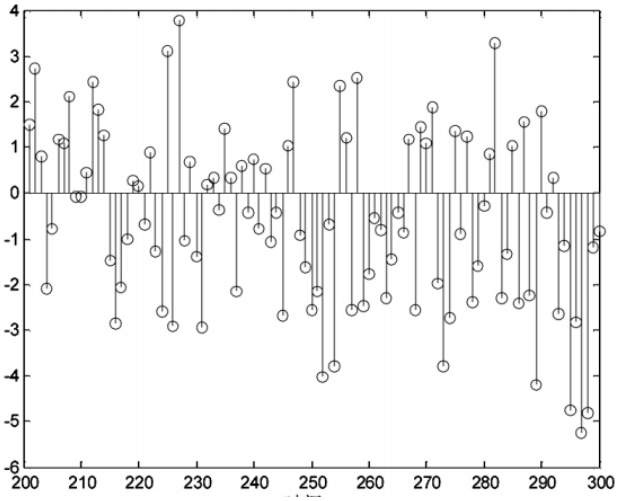

Fig. 3. Data mining output

According to the analysis of Figure 3, the system can effectively realize the mining of massive marketing data, the mining output has strong parallel scheduling ability, the system is stable and reliable, and the time cost of data mining is tested. The comparison results are shown in Table 1, and the analysis of Table 1 shows that the time cost of the method in this paper is short.

Table 1. Data mining information

Teststeps	Textualmethod	PID	PCA
100	0.43	4.32	4.35
200	0.68	6.54	5.43
300	0.98	7.32	6.87
400	1.43	8.12	6.90

6 Conclusion

Wechat is used for data mining, statistics, statistics and statistics of a large number of marketing data, and a huge marketing data cluster is established. Big data technology is used to optimize the planning and management of massive marketing data, and a large number of market data collection and adaptive sorting models are established. The semantic feature extraction algorithm is used for statistical and fuzzy identification of a large number of marketing data, and the fuzzy C-means clustering algorithm is used for information clustering processing after mining a large number of marketing data, so as to improve the ability of extended query and real-time mining of massive marketing data. This software can be used to mine marketing data on a large scale efficiently with good parallel sorting performance and little system resource consumption.

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