

# Construction and Application of Precision Marketing Model Driven by Emotional Analysis of Social Media

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**Keywords:** Social Media; Emotional Analysis; Precision Marketing

**Abstract:** In today's digital age, social media has become an important position for enterprise marketing. How to realize accurate marketing with social media is a key issue for enterprises. This paper focuses on the research of precision marketing driven by social media sentiment analysis, and constructs a precision marketing model based on social media sentiment analysis by integrating social media marketing, sentiment analysis and precision marketing related theories. This model includes data collection, preprocessing, emotion analysis, consumer portrait construction, marketing strategy generation and effect evaluation, etc. All modules work together to mine value information from massive social media data to formulate accurate marketing strategies. This model can effectively help enterprises to deeply understand consumers' needs, preferences and emotional tendencies in product positioning and development, advertising and communication, customer relationship management and other marketing scenarios, and then formulate targeted strategies. This study provides practical guidance for enterprises to improve marketing accuracy and effect in social media environment.

## 1. Introduction

With the rapid development of information technology, social media has been deeply integrated into people's daily lives. It not only changed the way of information dissemination, but also opened up a new broad world for the marketing activities of enterprises [1]. Many enterprises have regarded social media platform as an important marketing channel, trying to enhance brand awareness, expand customer base and promote product sales [2]. The massive information on social media is like a complex maze. How to accurately mine valuable marketing information from it has become a major challenge for enterprises [3].

At the same time, the technology of sentiment analysis is gradually emerging. This technology aims to identify the emotional tendency, such as positive, negative or neutral, through the analysis of text, voice and other data [4]. In the context of social media, emotional analysis can help enterprises gain a deep insight into consumers' real emotional response to products, brands or marketing activities [5]. It is of great practical significance to combine social media sentiment analysis with precision marketing to build an efficient precision marketing model.

The purpose of this study is to build a set of accurate marketing model based on social media sentiment analysis, and to explore its application in actual marketing scenarios. It is expected that through this research, a set of practical and accurate marketing strategies will be provided for enterprises, which will help them improve their marketing effects and enhance their market competitiveness. This study is helpful to enrich and expand the theoretical system of social media marketing and precision marketing. It can also provide powerful theoretical support and practical guidance for enterprises to formulate accurate marketing strategies in social media environment, help enterprises to use social media resources more efficiently, improve marketing accuracy and input-output ratio, and thus gain an advantage in fierce market competition.

## 2. Overview of theoretical cornerstones

Social media marketing theory refers to a series of marketing activities carried out by enterprises using social media platform, which can effectively connect enterprises and consumers with the

characteristics of strong interaction, wide spread and accurate target positioning [6]. Its main modes include content marketing, online celebrity cooperative marketing, etc. By creating high-quality content and relying on the influence of online celebrity, it can attract consumers' attention and enhance brand image. Emotion analysis theory uses natural language processing, machine learning and other technologies to extract and analyze emotional information from text data [7]. Through the emotional analysis of social media texts, we can understand consumers' attitudes towards products or brands, judge their satisfaction, and provide basis for enterprises to adjust their marketing strategies. Precision marketing theory is also indispensable. It takes consumers as the core, uses information technology to accurately locate the target customer groups, formulates personalized marketing strategies, and improves marketing effects. Precision marketing emphasizes in-depth insight into customer needs to achieve efficient allocation of resources and enhance the pertinence and effectiveness of marketing. These three theories are interrelated and jointly provide a solid theoretical support for the construction of precision marketing model based on social media sentiment analysis.

### **3. The relationship between social media sentiment analysis and precision marketing**

Emotional analysis of social media plays a key role in promoting precision marketing. This analysis can help enterprises to fully understand the needs of consumers. On the social media platform, consumers will spontaneously share their views and experiences on products or services. Emotional analysis can capture this information, so that enterprises can clearly know consumers' expectations in terms of functions and quality, and then point out the direction for precision marketing. It helps enterprises to grasp consumer preferences [8]. By analyzing the emotional tendency in social media texts, enterprises can judge consumers' preference for different product features and brand images. For example, analyze the reviews of electronic products to understand consumers' preferences for simple design and powerful performance, so as to highlight the highlights of products that meet consumers' preferences in precision marketing. Emotional analysis enables enterprises to gain insight into consumers' emotional tendencies. Knowing whether consumers are positive, negative or neutral, enterprises can adjust their marketing methods in time. If consumers have a negative attitude towards a promotion, enterprises can quickly optimize the activity plan and improve the marketing effect.

From the perspective of precision marketing, there is an urgent need for emotional analysis of social media. Precision marketing pursues a high degree of precision in market positioning, and the consumer sentiment data provided by social media sentiment analysis can help enterprises to divide the target market more accurately and formulate differentiated strategies for groups with different emotional characteristics [9]. In terms of marketing strategy formulation, precision marketing needs to deeply understand consumers' inner thoughts, while emotional analysis can tap consumers' potential emotional needs and help enterprises create more attractive marketing content.

### **4. Construction of precision marketing model based on emotional analysis of social media**

Constructing a precise marketing model based on social media sentiment analysis should follow the principles of scientificity, practicality and operability. The scientific principle ensures that the model construction is based on rigorous theories and scientific methods, so that the model has a solid theoretical foundation. Practical principles emphasized that the model can effectively meet the needs of enterprises in the actual marketing process and bring practical benefits to enterprises. The operability principle ensures that the model is easy to implement and execute in practical application scenarios. The overall construction idea is based on the massive data generated by social media platform, and uses sentiment analysis technology to deeply mine valuable information, and then generates accurate and effective marketing strategies based on this information.

The model is mainly composed of data collection module, data preprocessing module, emotion analysis module, consumer portrait construction module, marketing strategy generation module and effect evaluation module. The specific structure is shown in Figure 1.

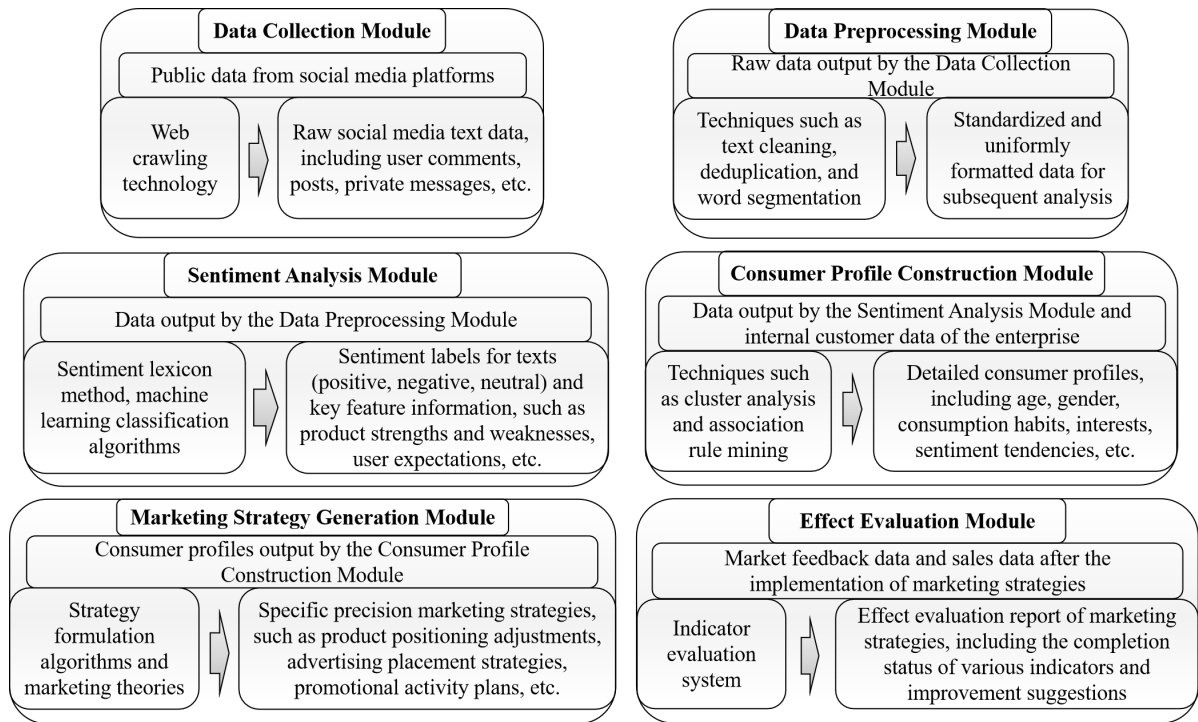


Figure 1 Precision marketing model structure based on social media sentiment analysis

The data collection module takes the lead in grabbing massive raw data from the social media platform, which contains rich and diverse user expressions. Subsequently, the data enters the data preprocessing module, where operations such as cleaning, duplication removal and word segmentation are carried out to transform the original messy data into a standardized and tidy data form. Then, the emotion analysis module uses natural language processing and machine learning technology to judge the emotion tendency and extract key information from the preprocessed data. After that, the consumer portrait construction module draws detailed portraits of consumers by using cluster analysis and other technologies according to the results of emotional analysis and other relevant data, so that enterprises can clearly understand the characteristics of target customer groups. Based on the portrait of consumers, the marketing strategy generation module combines the enterprise's own marketing objectives and available resources to generate accurate marketing strategies. For example, for young consumers who prefer fashion and are price-sensitive, a product promotion strategy combining fashion appearance with preferential price is formulated. Finally, the effect evaluation module makes a comprehensive evaluation of the implemented marketing strategy, and generates an evaluation report according to the indicators such as sales volume and customer satisfaction, which provides a strong basis for the optimization of the model and the adjustment of the subsequent marketing strategy. Through such a complete and interlocking operation mechanism, the model realizes the whole process operation from social media data to precise marketing strategy formulation and optimization.

## 5. Application of precision marketing model in different marketing scenarios

Precision marketing model shows unique value in diversified marketing scenarios. In the product positioning and development scenario, the model accurately positions the product with the help of social media sentiment analysis. For example, a sports brand collects consumer's discussion on sports equipment on social media, and finds that consumers are highly concerned about ventilation and fashion design and have positive emotions through emotional analysis. Based on this, the brand focuses on improving ventilation technology in new product development, and cooperates with well-known designers to create a fashionable appearance, which successfully attracts target customers. In the scenario of advertising delivery and communication, the model optimization delivery strategy is effective. Taking a digital brand as an example, by analyzing the emotional

tendency of users on different social media platforms, it is found that young people have a positive response to the promotion of innovative functions on short video platforms. Therefore, the brand put advertisements highlighting innovative technologies on the short video platform, which improved the click-through rate and conversion rate of advertisements.

Table 1: Application of Precision Marketing Models in Different Marketing Scenarios

Marketing Scenario	Data Collection Direction	Core Analysis Points	Strategy Generation Logic	Expected Outcomes
Product Positioning & Development	Comments on brand official accounts, industry forums, product discussion groups	Functional preferences, appearance expectations, material concerns	Identify key product improvement and innovation directions based on sentiment tendencies	Launch products that closely align with consumer needs, enhancing market competitiveness
Advertising Placement & Dissemination	Advertising interaction data across social platforms, user comments	Platform user characteristics, advertising creative preferences, emotional resonance points	Design advertising content and placement timing by combining platform tone with user sentiment preferences	Improve advertising precision reach and conversion rates, expanding brand influence
Customer Relationship Management	Private messages on brand official accounts, comment sections, and user-initiated shares	Service satisfaction, product after-sales issues, brand image perception	Prioritize handling negative reviews based on sentiment severity and track feedback	Enhance customer satisfaction and loyalty, fostering a positive brand reputation
Market Trend Forecasting	Discussions under industry hashtags, professional social media groups	Attention to new technologies, discussion heat around emerging needs, market sentiment shifts	Adjust product development and market strategies based on topic heat and sentiment tendencies	Anticipate and seize market opportunities ahead of competitors
Promotional Activity Planning	Social platform feedback during promotional activities, surveys	Recognition of discount levels, preferences for activity formats, acceptance of participation thresholds	Design activities based on consumer sentiment preferences for promotional elements and participation willingness	Increase participation in promotional activities, driving product sales growth

In the customer relationship management scenario, the model helps enterprises to better maintain customer relationships. A catering enterprise collects customers' comments on dishes and services on social media, and promptly follows up the negative comments. If the customer feedback that a dish tastes too salty, the company quickly adjusts the cooking method and expresses its sincerity for improvement to the customer, which enhances customer satisfaction and loyalty. The specific application of precision marketing model in different marketing scenarios can refer to Table 1.

Through the application in these marketing scenarios, the precision marketing model helps enterprises to deeply understand consumers, formulate strategies that better meet market demand, and realize efficient marketing and sustainable development.

## 6. Conclusions

This paper focuses on the construction and application of precision marketing model driven by social media emotional analysis. On the theoretical level, this paper systematically combs the related theories of social media marketing, emotional analysis and precision marketing, and makes clear the internal relations among the theories, so as to build a solid theoretical cornerstone for the follow-up model. Based on the above theory, a set of precision marketing model has been successfully constructed. Based on the principles of scientificity, practicality and operability, the model has a perfect module structure, from data collection, preprocessing to emotion analysis, to consumer portrait construction, marketing strategy generation and effect evaluation, and each module has a clear division of labor and close cooperation. Through this model, enterprises can efficiently extract valuable information from the massive data of social media and gain insight into consumers' needs, preferences and emotional tendencies.

In practical application, the model can show remarkable results in product positioning and development, advertising and communication, customer relationship management and other marketing scenarios. In product positioning and development, it helps enterprises to accurately grasp the market demand and develop products that are more in line with consumers' wishes; Advertising and communication links, to achieve accurate access to target customers, improve advertising effectiveness; In customer relationship management, respond to customer feedback in time to enhance customer satisfaction and loyalty.

This study also has some limitations. In the process of model construction, the application of some algorithms and technologies may be affected by the scale and complexity of data, resulting in slight deviation of analysis results. The model is not flexible enough to deal with the rapidly changing social media environment and emerging marketing scenarios. Future research can consider further optimizing the model algorithm, improving its ability to handle complex data, and strengthening the adaptability research on emerging marketing scenarios, so that the model can better serve the continuous development of precision marketing needs of enterprises.

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