

The Mechanism of Algorithmic Recommended Advertisements on the Feifeng Shuangchun Tea E-commerce Platform in Influencing Consumers' Purchasing Decisions

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ABSTRACT

This article mainly talks about how the recommendation advertisement of the algorithm affects our decision to buy things on the Fenghuang Shuntong Tea e-commerce platform. By studying the technical principle of algorithm recommendation advertisement and the theory of how consumers make decisions, it discusses how this kind of advertisement works in the environment of Fenghuang Shuntong Tea e-commerce, such as how it conveys information to us, arouses our interest, matches our needs and builds trust. The article also analyzes some influencing factors, such as the quality of data, the model of algorithm, and the characteristics of our consumers. The purpose of this is to provide a theoretical basis for optimizing the algorithm recommendation advertisement of Fenghuang Shuntong Tea e-commerce platform, so as to help everyone make a purchase decision more efficiently and make the marketing effect of the platform better.

Keywords: Algorithmic recommended advertisements; Phoenix Single-Flavor Tea; E-commerce platform; Purchase decision-making; Mechanism of action.

1. INTRODUCTION

With the promotion of digital wave, e-commerce platform has become the main channel for consumers to buy Phoenix Single-Flavor Tea [1]. As the core marketing tool of e-commerce platform, algorithm recommendation advertisement can accurately push personalized advertising content, which has great influence on consumers' purchase decision [2]. Phoenix Single-Flavor Tea is a precious variety of China oolong tea, which has a place in the tea market with its unique aroma and taste. Its consumers are both old tea drinkers who pursue quality and new tea lovers who are influenced by culture [3]. The algorithm recommends that advertisements accurately reach different consumer groups, affecting their cognition, emotion and behavior, thus changing the purchase decision-making process [4]. Studying the influence mechanism of algorithmic recommendation advertisements on consumers' purchase decisions on Phoenix Single-Flavor Tea e-commerce platform can not only help e-commerce platform to optimize recommendation strategies and improve marketing effects, but also promote the healthy development of Phoenix Single-Flavor Tea market [5].

At present, with the rapid development of big data, artificial intelligence and other technologies, the application of algorithm recommendation advertising is more and more extensive and in-depth. However, there is still little research in the field of tea e-commerce, especially the research on this characteristic tea, Phoenix Single-Flavor Tea [6]. Therefore, this research has important theoretical and practical significance, which can fill the research gap in this field and provide new ideas and methods for the development of tea e-commerce industry.

2. ALGORITHMIC ADVERTISING RECOMMENDATION AND CONSUMER DECISION THEORY

2.1 Technical Foundation of Algorithmic Advertising Recommendation

Algorithmic advertising recommendation is based on cutting-edge technologies such as big data, machine learning, and artificial intelligence [7]. In terms of data collection, e-commerce platforms collect consumer behavior data through various channels, such as browsing history, search keywords, purchase history, and favorites information, while integrating basic information about consumers, such as age, gender, location, and spending power, to construct a comprehensive user profile

[8]. The data preprocessing stage cleans, transforms, and extracts features from the collected raw data, removing noise data, filling in missing values, and converting the data into a format suitable for algorithm processing.

The algorithm model is the core of algorithmic advertising recommendation. Common recommendation algorithms include collaborative filtering algorithm, content-based recommendation algorithm, hybrid recommendation algorithm, and deep learning recommendation algorithm [9]. Collaborative filtering algorithm is recommended according to the similarity between users or items, which is widely used in the field of e-commerce. Content-based recommendation algorithm matches recommendations according to the attributes of items and consumers' preferences, and can give personalized recommendation results. The hybrid recommendation algorithm combines the advantages of many algorithms to make the recommendation more accurate and comprehensive. Deep learning recommendation algorithm uses neural network model to learn the complex nonlinear relationship between users and objects, which can process large-scale data and mine deep features, and has developed rapidly in recent years [10].

2.2 Consumer Decision Theory

Consumer's decision-making is a complicated psychological and behavioral process, which is influenced by many factors. Traditional consumer decision-making models, such as AIDMA model (Attention-Interest-Desire-Memory-Action) and AISAS model (Attention-Interest-Search-Action-Share), describe a series of stages from contact with product information to final decision to buy. In the digital age, consumers' decision-making process has become more complex and diverse, influenced by social media, online comments, algorithm recommendation and other factors.

Consumer decision theory tells us that when consumers make decisions, their cognition, emotion and behavior will work together. Cognitive aspect is how consumers feel, understand and remember the information of product. Algorithmic advertising recommendation can influence consumers' thinking process by providing accurate information. Emotion refers to the feeling that consumers like or dislike the product. Personalized algorithmic advertising recommendation can make them happy and make them want to buy things more. Behavior, that is, the consumer's last purchase action and what he did afterwards. Algorithmic advertising recommendation can change consumers' thoughts and feelings, so that they can be guided to buy.

3. THE PATHWAY OF ALGORITHM-RECOMMENDED ADS ON THE PURCHASE DECISION OF PHOENIX SINGLE-TEA CONSUMERS ON THE E-COMMERCE PLATFORM

3.1 Information Dissemination: Attracting Consumers' Attention

In the era of information explosion, consumers' attention has become a scarce resource. Algorithm-Recommended Ads pushes the relevant information of Phoenix Single-Tea to users with potential needs by accurately positioning the target consumers, and attracts their attention. The e-commerce platform judges the interest of tea lovers in tea products according to the user's browsing records and search keywords. When users search for information about Phoenix Single-Tea or browse similar tea products, Algorithm-Recommended Ads will immediately display the advertising content of Phoenix Single-Tea, such as product pictures, brand introduction and unique functions, to attract users' attention.

In addition, algorithm-Recommended Ads can also use the communication advantages of social media platforms to spread information through users' friends and social networks. When users' friends praise, comment or share the advertisement of Phoenix Single-Tea, the algorithm will push the advertisement to more users with similar interests and social relations, expand the spread of information, increase the exposure of the advertisement and attract more consumers' attention.

3.2 Interest Excitation: Triggering Consumers' Interest

Attracting consumers' attention is only the first step. The key is to stimulate their interest in Phoenix Single-Tea. Algorithm-Recommended Ads, through personalized content presentation and precise recommendation strategies, meet the consumers' personalized needs and trigger their interest. For experienced tea lovers who value the quality and culture of tea, algorithm-Recommended Ads can focus on introducing information about the origin, variety, production process, historical culture, etc. The unique quality and cultural connotation of Phoenix Dan Cong tea attract the attention and interest of tea lovers.

For new consumers influenced by culture, algorithm-Recommended Ads can be used in more vivid and interesting ways, such as short video and live broadcast, showing the brewing process, taste characteristics and collocation suggestions of Phoenix dancong tea, so that consumers can intuitively feel the charm of Phoenix dancong tea and stimulate their desire to try. At the same time, the algorithm recommendation advertisement can also recommend suitable Phoenix Dan Cong

tea products, such as holiday gift boxes, party sharing clothes, etc., in combination with consumers' holiday needs and social scenes, so as to increase the attractiveness and practicability of the products and further stimulate consumers' interest.

3.3 Demand Matching: Meeting Consumers' Needs

There are many reasons why people buy Phoenix Single-Tea. Some drink it for themselves, some give it away, and some like to collect it. Algorithm-Recommended Ads can accurately recommend suitable tea to meet our actual needs by understanding everyone's preferences and needs. The e-commerce platform can judge what kind of demand we belong to by analyzing our purchase records and browsing behaviors.

For consumers who drink by themselves, Algorithm-Recommended Ads will recommend appropriate varieties and grades according to their taste preferences. For example, if they like refreshing taste, they can recommend Daoshida Xiang or Zilanh Xiang. For consumers who want to give away, Algorithm-Recommended Ads will recommend beautifully packaged and high-quality gift sets, and will also give personalized gift suggestions based on the theme of the festival and the characteristics of the recipient; For consumers who have a hobby of collecting, Algorithm-Recommended Ads will recommend those rare products with appreciation potential, such as ancient tree Single-Tea and limited edition products, and provide relevant collection knowledge and suggestions.

3.4 Trust Building: Enhancing Consumers' Purchase Confidence

Do we believe that a product and brand are very important when making a decision about buying something? Algorithm-Recommended Ads can provide real and reliable information, show the quality and value of Phoenix Single-Tea, and make us trust it more and make it easier to decide to buy. E-commerce platform can invite professional tea evaluators to evaluate the quality of Phoenix Single Camellia tea and put the evaluation results in advertisements, so that we can know what grade and characteristics this product is.

At the same time, the advertisements recommended by this algorithm can also show the real evaluations and comments of other consumers, and increase the credibility and persuasiveness of products through other people's buying experiences and using feelings. In addition, the e-commerce platform can also provide comprehensive after-sales service guarantee, such as return policy and quality assurance, which will make us feel more at ease when buying and further increase our confidence in buying.

4. THE INFLUENCING FACTORS OF ALGORITHM-RECOMMENDED ADS ON CONSUMERS' PURCHASE DECISIONS ON THE FENGHUANG SHUNTONG TEA E-COMMERCE PLATFORM

4.1 Data Quality

Data quality is the foundation of algorithm recommendation advertisement, which directly affects the effect and accuracy of recommendation. Good data can provide more comprehensive and accurate information and help the algorithm better understand the needs and preferences of our consumers, so as to make accurate recommendations. If there are errors, omissions or incompleteness in the data, it will make the recommendation of the algorithm go wrong and affect our purchase decision. For example, if the basic information of the consumer's age and gender is wrong, the algorithm may recommend the product according to the wrong information, and the recommended thing does not meet the actual needs of the consumer at all.

In addition, the timeliness of data is also very important. The needs and preferences of our consumers are always changing. If the data can't be updated in time, algorithm recommendation can't keep up with the changes of our needs, and there is no way to give useful recommendations. Therefore, the e-commerce platform needs to establish a complete set of data collection and management methods to ensure the quality and timeliness of data, so as to provide reliable support for algorithm advertising recommendation.

4.2 Algorithm Model

Algorithm model is the core of algorithm recommendation advertisement. Different algorithm model have different characteristics and advantages, which are suitable for different scenarios and needs. Choosing the appropriate algorithm model is very important to improve the recommendation effect and influence consumers' purchase decision. For example, collaborative filtering algorithm is suitable for dealing with similarity recommendation between users, but it does not perform well on the cold start problem of new users or new products; Content-based recommendation algorithm can be

recommended according to the attributes of items, but it depends heavily on the quality of feature extraction. Deep learning recommendation algorithm can handle large-scale data and complex nonlinear relationships, but it needs a lot of computing resources and training data.

E-commerce platform needs to choose the appropriate algorithm model according to its own business characteristics and data situation, and constantly optimize and improve it. At the same time, they can combine the advantages of multiple algorithm models and adopt hybrid recommendation algorithms to improve the accuracy and comprehensiveness of recommendations. Moreover, the transparency and interpretability of algorithm models are also increasingly receiving attention. Consumers hope to understand how the algorithm makes recommendations, so as to trust and accept the recommendation results. Therefore, e-commerce platforms need to ensure the performance of the algorithm while improving the transparency and interpretability of the algorithm.

4.3 Consumer Characteristics

Consumer characteristics are important factors affecting the effectiveness of algorithmic recommended ads and consumers' purchase decisions. Different age, gender, region, and consumption capacity consumers have different needs and preferences, and their acceptance and response to algorithmic recommended ads are also different. For example, young consumers are more concerned about whether the products are personalized and fashionable, and they are more interested in novel recommendation methods and contents; Middle-aged and elderly consumers pay more attention to the quality and practicality of products, and they believe in traditional recommendation methods and authoritative information.

In addition, consumers' purchasing experience and knowledge level will also affect their views and decisions on algorithm recommendation advertisements. Experienced tea lovers have a deeper understanding of Fenghuang Shuntong tea, they pay more attention to the quality and cultural connotation of products, and have higher requirements for advertisements recommended by algorithms; However, new consumers know less about Fenghuang Shuntong tea, and they are more influenced by algorithm recommendation advertisements, but they also need more information and help to make purchase decisions. Therefore, the e-commerce platform needs to deeply understand the characteristics and needs of consumers, do a good job of accurate user grouping, and provide personalized algorithm recommendation advertisements for different consumer groups.

5. CONCLUSION

Algorithm recommendation advertisement plays a key role in consumers' purchase decision on Fenghuang Shuntong Tea e-commerce platform. They influence consumers' cognition, mood and behavior through information transmission, interest stimulation, demand matching and trust establishment, thus promoting purchase decisions. However, the effect of algorithm recommendation advertisement will be affected by many factors such as data quality, algorithm model and consumer characteristics. In order to improve the effect of algorithm recommendation advertisement and promote the development of Fenghuang Shuntong Tea e-commerce market, e-commerce platform needs to strengthen data management and improve data quality; Select the appropriate algorithm model, and continue to optimize and improve; At the same time, we can deeply understand the characteristics of consumers and make accurate user grouping and personalized recommendation.

In the future, with the continuous development of technologies such as AI and big data, advertisements recommended by algorithms will become smarter and understand us better. For example, the recommendation algorithm based on feedback learning can continuously optimize the recommendation strategy according to users' real-time feedback, making the recommendation effect better; Multi-modal recommendation algorithm can combine different types of information, such as pictures, sounds and words, to provide richer and more vivid recommendation content. At the same time, consumers will pay more and more attention to privacy protection and algorithm fairness. E-commerce platform should strengthen privacy protection and algorithm transparency while ensuring the recommendation effect, so as to create a fair and healthy shopping environment.

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