

Research on the Evolution Mechanism of Consumer Decision-making Behavior in Cross-platform Environment: Analysis from the Healthy Consumer Market

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Keywords: Cross-platform environment; Healthy consumer market; Consumer decision-making behavior; Evolutionary mechanism; Influencing factors

Abstract: This article focuses on the evolution mechanism of consumer decision-making behavior in the healthy consumer market under cross-platform environment. Under the background of digital economy, cross-platform has become an important scene of business activities, and the healthy consumer market has shown a new trend in this environment. This article mainly analyzes the characteristics of healthy consumer market in cross-platform environment, and discusses the elements and factors of consumer decision-making behavior. Cross-platform environment has brought the characteristics of diversity, fierce competition and diversified demand to the healthy consumer market platform. Consumers' decision-making behavior is often influenced by people's health concepts, consumption habits, the spread of social health concepts and other factors. The evolutionary mechanism model can be summarized as four levels: information input, cognitive processing, decision-making formation and feedback adjustment. These four levels show the dynamic evolution process of consumer decision-making behavior.

1. Introduction

Driven by the development of digital economy, cross-platform environment has evolved into an important scene of business activities. In this environment, various network platforms are constantly emerging and intertwined. Consumers can freely choose between different platforms to seek services that meet their own needs [1]. As a field closely related to people's lives, the healthy consumption market presents a unique development trend [2]. Traditional consumer decision-making behavior is often limited to a single platform or offline scene, and sometimes it is difficult to explain the complex and changeable decision-making process in cross-platform environment [3]. By analyzing the evolution mechanism of decision-making behavior in this environment, we can expand the theoretical system of consumer behavior, and then provide new ideas for the development of related disciplines [4]. Nowadays, the scale of healthy consumption market is expanding, and the competition among enterprises is becoming more and more fierce. Cross-platform marketing has become an important strategy for enterprises, but enterprises lack sufficient understanding of the changing law of consumer decision-making behavior between different platforms [5]. With the help of research, a clear understanding of the evolution mechanism of consumer decision-making behavior will help enterprises to formulate more accurate and effective marketing strategies [6]. For the regulatory authorities, understanding the decision-making characteristics of consumers in the cross-platform healthy consumption market can better formulate policies, standardize market order and protect consumers' rights and interests.

In view of this, this study focuses on the evolution mechanism of consumers' decision-making behavior in the cross-platform environment, hoping to reveal its internal laws through systematic analysis and provide strong support for theoretical development and market practice.

2. Related theories and literature review

The theory of cross-platform environment mainly focuses on the concepts of platform ecosystem and platform economy, emphasizing the interaction and collaboration between platforms [7]. The theory of consumer decision-making behavior covers rational decision-making theory and bounded

rational decision-making theory, and expounds the information processing and selection mechanism of consumers in the decision-making process. The related theories of healthy consumption market focus on the influence of health concept and health demand on consumption behavior.

In terms of literature, many studies pay attention to the consumer behavior in the healthy consumption market under the traditional environment, including the role of health awareness, product cognition and other factors in purchasing decisions [8]. Aiming at the research of cross-platform environment, some scholars have discussed the influence of multi-platform use on consumers' information search and choice behavior, but there are few studies focusing on the evolution mechanism of consumers' decision-making behavior in the healthy consumer market. The existing literature is mostly analyzed from a single dimension, lacking systematicness and comprehensiveness, and has not fully revealed the dynamic change process of consumers' decision-making behavior in the cross-platform environment, which provides a broad space for this study.

3. Analysis on the characteristics of healthy consumption market in cross-platform environment

In today's digital age, the cross-platform environment has a profound impact on the pattern of healthy consumption market, making it present a series of unique characteristics [9]. Diversity is an important feature of healthy consumer market in cross-platform environment. Consumers can obtain health services through e-commerce platforms, social media platforms, health professional platforms and other channels. Different platforms have different functions and positioning. For example, e-commerce platforms usually focus on product sales and provide a variety of goods and shopping methods. Social media platforms are more focused on information sharing and social interaction. Consumers can get other people's healthy consumption advice here. This diversity provides consumers with a wider range of choices. In a cross-platform environment, the behavioral data left by consumers on different platforms can circulate with each other [10]. Through data analysis, enterprises can more comprehensively understand consumers' health needs, preferences and buying behavior patterns. Consumers search for treatment methods for specific diseases on the health professional platform, and relevant data may be shared to the e-commerce platform, so that the e-commerce platform can accurately push relevant health product advertisements to the consumers. The competition in today's market is more intense. Many enterprises have settled in different platforms, which has intensified the competition in the healthy consumer market. In order to attract consumers, enterprises should not only compete in product quality and price, but also make efforts in platform operation and service quality. See Table 1 for the comparison of the characteristics of different platforms in the health consumption market under the cross-platform environment:

Table 1 Comparison of Characteristics of Different Platforms in the Health Consumption Market in a Cross-Platform Environment

Platform Type	Main Functions	Advantages	Disadvantages
E-commerce Platform	Health product sales and transactions	Rich product variety, convenient shopping	Uneven product quality, complex information
Social Media Platform	Health information sharing, social interaction	Rapid information dissemination, strong social nature	Difficult to verify information authenticity, lack of professional review
Health Professional Platform	Provide professional health knowledge and consulting services	Highly professional, accurate information	Limited service scope, relatively few commercial promotions

In the cross-platform environment, the consumer demand of healthy consumer market also presents a diversified trend. Consumers not only pay attention to the basic functions of products, but also put forward higher requirements for personalization, intelligence and environmental protection of products. The cross-platform environment endows the healthy consumer market with the

characteristics of platform diversity, strong data mobility, fierce competition and diversified demand. These characteristics profoundly affect consumers' decision-making behavior, and also bring new opportunities and challenges to enterprises and related research.

4. Consumer decision-making behavior elements and influencing factors

In the cross-platform environment of the healthy consumer market, consumer decision-making behavior involves many key elements, and is influenced by many internal and external factors [11]. These factors are intertwined and jointly shape the decision-making process of consumers. The primary element of consumer decision-making behavior is information acquisition. In the cross-platform environment, consumers can obtain information of health products or services from various channels such as product introduction of e-commerce platform, user sharing on social media, and professional information of health professional platform. The information quality and content emphasis of different channels are different. Consumers will evaluate health products or services according to product quality, brand reputation, price rationality, personalization and other standards. Taking health food as an example, consumers' attention to its nutritional composition, organic quality and other quality factors, brand reputation in the health field and whether the price meets their psychological expectations are all within the scope of evaluation and consideration.

Willingness to buy is also an important factor. After comprehensive information and evaluation, consumers form purchase intention. This will is not fixed, and may change due to the acquisition of new information and the influence of others' evaluation. Table 2 presents the elements of consumer decision-making behavior and their specific contents:

Table 2 Elements of Consumer Decision-Making Behavior in the Health Consumption Market in a Cross-Platform Environment

Decision-Making Behavior Element	Specific Content	Impact on Decision-Making (High/Medium/Low)	Influencing Factor Category (Internal/External)
Information Acquisition	Product details and parameters on e-commerce platforms; user-shared experiences and word-of-mouth on social media; professional knowledge and research reports on health professional platforms	High	External
Evaluation Criteria	Product quality (ingredients, craftsmanship), brand reputation (industry status, word-of-mouth), price reasonableness (cost-effectiveness, price elasticity), degree of personalization (customization options, meeting special needs)	High	Internal and External
Purchase Intention	Influenced by information integration, evaluation results, and immediate factors such as promotional activities and recommendations from others	High	Internal and External
Decision-Making Speed	Fast decision-making when consumers are familiar with the product category and platform; slow decision-making when facing new brands and complex products	Medium	Internal and External
Brand Loyalty	Repeat purchase tendency influenced by past positive experiences and brand culture identification	Medium	Internal

The internal factors affecting consumers' decision-making behavior can not be ignored.

Consumers' own health concept plays a key role. Consumers with strong health concept are more inclined to invest in health products and services, and have higher requirements for professionalism and safety of products. Consumption habits also affect decision-making, and consumers who are used to online shopping rely more on e-commerce platforms; Consumers who are accustomed to social interaction to obtain information are easily influenced by social media recommendations. External factors also have a significant impact on consumer decision-making behavior. Platform marketing strategy is one of the important external factors. The promotion activities of e-commerce platform, the promotion of social media in online celebrity, and the expert recommendation of health professional platform may guide consumers' purchasing decisions. The spread of social health concepts will also affect consumers. When the society generally pays attention to a certain health concept, consumers' demand and willingness to buy related health products will increase.

5. Consumer decision-making behavior evolution mechanism model construction

In order to deeply understand the evolution law of consumers' decision-making behavior in the cross-platform environment, it is necessary to build a scientific and reasonable evolution mechanism model. This model is based on the comprehensive analysis of consumer decision-making behavior elements and influencing factors, aiming at revealing the dynamic process of consumer decision-making from the initial stage to the final formation of purchase behavior, and the possible changes in the future. It is assumed that consumers' decision-making behavior will evolve with the passage of time, the change of information acquisition and the role of external factors in cross-platform environment. Consumers do not have complete information and stable decision-making tendency from the beginning, but gradually clarify their own needs and preferences in the process of interacting with different platforms.

Based on the above assumptions, the evolution mechanism model of consumer decision-making behavior is constructed. The model mainly includes four core parts: information input layer, cognitive processing layer, decision-making layer and feedback adjustment layer. At the information input level, consumers obtain information about health products or services from e-commerce platforms, social media platforms, health professional platforms and other channels. This information covers product features, user evaluation, expert advice and many other aspects. The cognitive processing layer screens, analyzes and integrates the input information, and combines the internal factors such as consumers' own health concepts and consumption habits to form a preliminary cognition and evaluation of products or services. In the decision-making layer, consumers comprehensively consider the evaluation criteria such as price, brand and personalization according to the results of cognitive processing, and finally form a purchase decision. Table 3 shows the contents and relationships of each layer of the evolution mechanism model of consumer decision-making behavior:

Table 3 Content and Relationships of Each Layer in the Evolutionary Mechanism Model of Consumer Decision-Making Behavior

Model Layer	Main Content	Relationship with Other Layers
Information Input Layer	Obtain information such as product characteristics, user reviews, and expert advice from multiple platforms	Provides raw data for the cognitive processing layer
Cognitive Processing Layer	Screen, analyze, and integrate information in combination with internal factors to form initial cognition	Receives information from the information input layer and provides a basis for the decision-making formation layer
Decision-Making Formation Layer	Form purchase decisions based on cognitive results and comprehensive evaluation criteria	Based on the results of the cognitive processing layer and influenced by the feedback adjustment layer
Feedback Adjustment Layer	Adjust subsequent decisions based on purchase experiences and new information	Influences the decision-making formation layer and prompts the information input layer to update information

The feedback adjustment layer is the dynamic part of the model. After purchasing a product or service, consumers will adjust their decision-making behavior according to the actual experience and the new information obtained later. If the purchased health products are effective, consumers may increase their willingness to buy the brand or similar products; On the other hand, if there is a problem, consumers may change their decision-making direction and look for alternative products. This feedback adjustment process will once again affect the information input layer, prompting consumers to pay more attention to certain specific information in subsequent decisions.

6. Conclusions

In this article, the evolution mechanism of consumer decision-making behavior in healthy consumer market under cross-platform environment is deeply studied. In today's digital age, cross-platform environment has a far-reaching impact on the healthy consumer market, showing many unique characteristics. The diversity of platforms enables consumers to have a wider choice space, the enhanced data mobility helps enterprises to accurately market, the intensified market competition urges enterprises to continuously improve their competitiveness, and the diversification of consumer demand reflects consumers' pursuit of health products and services at a higher level.

Consumer decision-making behavior consists of information acquisition, evaluation criteria and purchase intention. It will be influenced by internal health concepts, consumption habits, external platform marketing strategies and other factors. These factors are intertwined, and then jointly affect the consumer's decision-making process. The evolution mechanism model of consumer decision-making behavior based on relevant assumptions includes information input layer, cognitive processing layer, decision-making layer and feedback adjustment layer. The model shows the dynamic process of consumers from obtaining information to making decisions, and then adjusting subsequent decisions according to feedback.

This study is helpful for enterprises to understand the rules of consumer decision-making behavior in cross-platform environment, and then formulate accurate and effective marketing strategies. Future research can further explore the mechanism of various influencing factors and consider more complex market situations.

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