# Study on the Buying Behaviors of Consumers in Livestreaming of Internet Celebrities under the Perspective of Behavioral Economics

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### Abstract

In recent years, amidst the booming development of E-commerce livestreaming industry, the unique advantages brought by new media technologies continue to appeal to users. In the context of marketing through livestreaming of internet celebrities, the consumers' shopping is a complex decision-making process. Differing from the viewpoint of "rational people" in classical economics, relevant theories of behavioral economics believe that consumers' behaviors are not merely rational economic behaviors, but perceptual behaviors that are jointly affected by their personal characteristics, emotional factors, social culture and specific situations. Based on the perspective of behavioral economics, this study gives a study on the influence of livestreaming celebrities on consumers' buying behaviors and reveals their psychological characteristics in making shopping decisions during livestreaming.

### **Keywords**

Behavioral Economics; Internet Celebrities; Livestreaming Shopping; Psychological Characteristics.

### **1. Introduction**

With rapid development of information communication and mobile Internet technologies, emerging media are playing an increasingly important role in people's daily lives in the mobile Internet era. According to the statistics, as of March 2021, the number of Internet users in China had approached 1 billion, ranking the top in the world. More than half of them were mobile Internet users, and the online shopping consumers exceeded 700 million. Livestreaming sale is an innovative marketing approach that integrates E-commerce and live video. The rise of the short video industry has brought new flourishing development of mobile Internet, followed by the rise of many livestreaming platforms and a number of "internet celebrities". The livestreaming sale has gradually become a new development trend and marketing means. In particular, due to the huge impact of COVID-19 on physical shopping and offline communication, livestreaming sale is getting more common and becomes the mainstream marketing means. Upon reference to a large number of relevant literatures, this paper gives an in-depth analysis of livestreaming of internet celebrities, consumers' buying behaviors and relevant theories of behavioral economics, attempting to study and reveal the influence of livestreaming sale on consumers' in-depth psychology.

## 2. Relevant Theories of Behavioral Economics

### 2.1. AIDMA Theory

AIDMA marketing theory is about dividing the process of influence of marketing on consumers. Consumers' consumption process is divided into five stages that start with attention and finish

with actual purchase, namely, paying attention to commodities (attention), triggered interest in shopping (interest), activation of consumption desire (desire), generation of profound memory (memory), and implementation of consumption action (action) which are referred to as the AIDMA theory. From the perspective of relevant theories of psychology, individual consumers are stimulated by external environment, and undergo changes in their cognition or emotion, resulting in differences in internal or external behaviors. For instance, the internal responses are reflected in attitude or willingness, while the external responses are reflected in "tendency" or "avoidance". The five-stage model of AIDMA can be used to predict the behavioral responses of individual consumers. The application of AIDMA theory in marketing is mainly reflected in consumers' behaviors. For example, in case of offline shopping, the atmosphere of the physical store will affect individuals' internal responses, which results in the basic emotion from "happiness-awakening-dominance" and directly affects their behavioral responses of either seeking advantages or avoiding disadvantages. In case of online shopping, the group buying will have a significant influence on online shoppers' consumption intention and behaviors [1]; online remarks on commodities will influence consumers' impulse buying intention and consumption behaviors; [2] refund policy also influences consumers' attitudes and psychology.[3] AIDMA theory shows that individual consumers will develop certain psychological or emotional responses after being stimulated by external environment, as a result of which their buying intention and buying behaviors are significantly affected. To some extent, AIDMA theory reasonably explains how consumers' consumption psychology is influenced by livestreaming sale, as well as the internal mechanism of final consumption behavior.(As shown in figure 1)

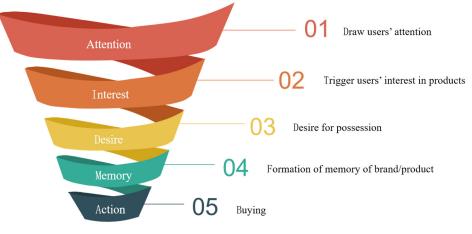


Figure 1. AIDMA theory

### 2.2. **Mental Accounting**

Mental accounting is an important concept in behavioral economics. Since the 1950s, the research in psychology has been enriched and developed, and some scholars have combined it with economics to explain people's economic behaviors. At the same time, it has enriched and developed economics into behavioral economics. With the deepening of research, scholars have gradually realized that many of people's decisions in the real world do not conform to the hypothesis of "completely rational people". Instead, due to limited available information and some subjective cognitive biases, people are "irrational".

In 1978, Herbert A. Simon proposed the prophet of bounded rationality, believing that people's decision-making was subject to various constraints. It was found that people do not always follow the principle of "maximizing" utility and achieving "optimal" decision-making but follow the principle of "satisfaction" and that on many occasions, a decision is made when a relatively satisfactory choice is found [4]. Kahneman and Tversky (1979) integrated psychology into behavioral science on the prophet of bounded rationality, and proposed a Prospect Theory to

study the behaviors in risk decisions and analyze people's failure to follow the hypothesis of "perfectly rational person" [5]. In 1980, the famous scholar Thaler first put forward the theory of "Psychic Accounting" to answer why people are affected by "sunk cost effect" when they are buying something [3]. He said that people took into account not only current costs but also previous costs and benefit when calculating costs. He believed that one reason of the influence of "sunk costs" on people's decision-making was attributable to prospect theory. In addition, he boldly proposed that there was also a "mental accounting system" in people's subconsciousness, a spontaneous psychological evaluation process of previous and present gains and losses. [6] In discussing how people make economic decisions in daily life, Thaler (1999) introduced a value function. He believes that people are evaluating the gains and losses of each choice when performing mental operations [7] and that the pain brought by the same amount of losses is far greater than the joy brought by the profit, which is referred to as the psychology of loss aversion. Loss aversion has a great impact on operations of mental accounting, and people will try to avoid losses as much as possible when making trading decisions. As shown in the figure, the slope of curve of loss part is steeper than that of the profit part, and the formula comparison is |V(X)| < |V(-X)|. Therefore, it is believed that in face of "gains", people want to avoid risks and receive more gains, and that in face of "losses", they are risk-oriented, and willing to challenge either higher or lower risks other than to wait for definite losses. (As shown in figure 2)

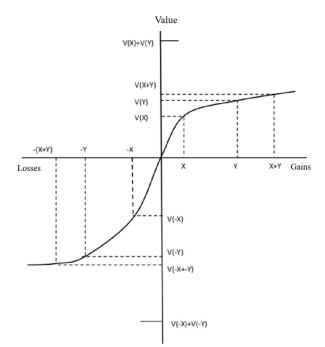


Figure 2. Value function

### 3. Analysis of Consumers' Buying Behaviors in Livestreaming of Internet Celebrities

### 3.1. Rush Buying Scenario and Loss Aversion Mentality

Rushing buying is a scenario that often occurs in E-commerce livestreaming. In a livestreaming room, a broadcaster doubles the speed of introducing the merits of products and then announces the commencement of "rush buying" with exclamation of "OMG". Audience in the livestreaming room will leave remarks of "buy it" in the comment section. On the screen, the bright red rush buying countdown flashes, and buyers of products are repeatedly displayed. At the same time, the broadcaster will report the quality of less and less available products, emphasizing once again that there is no such opportunity next time and that buying now

definitely brings no losses. This rush buying scenario is an important external stimuli of Ecommerce livestreaming, which creates a strong sense of resource scarcity and tension and leave no adequate time for users to think. Therefore, users are forced to fast make consumption decisions in a short time. At this time, there is room for loss aversion mentality. In the rush buying scenario of E-commerce livestreaming, the limited rush buying time and the instigation of the live broadcaster push users to make a decision within a short time in the absent of adequate information. Furthermore, as the remarks of "buy it" and live broadcaster's report of available quantity intensity the sense of scarcity, it provides a reference for users to imitate the decision-making. As a result, in line with the live broadcaster's repeated psychological suggestion that "it's a loss if you don't buy it", users will develop the psychological tendencies and imitate the buying behavior.

### 3.2. Discounts and Mental Accounts

In the E-commerce livestreaming room, the live broadcaster often stresses the original price of the product, and keep audience in suspense before announcing the discounted price. Moreover, as often as not, there are incentives such as amount-specific discount, half price for second piece or coupons for next buying. These various means of discount are important external stimuli for users to make consumption decisions. According to the survey data of the China Consumers Association, discounts and limited-time special offers are the key factors of consumers' decision-making when watching livestreaming. Promotional stimuli significantly promote consumers' impulse buying behavior [8].

When making promotions, live broadcasters often first stress the so-called higher original price, and then offer a discounted price. At this time, users develop a feeling that it is quite cheap and cost-effective, since they have perceived the price before making a buying decision. Perceived price is defined as a customers' comprehensive assessment of actual utility in acquiring a service or product based on the measurement of perceived effort and gain. This perception measurement requires a reference point. According to the anchoring effect, when people need to make a decision in uncertain situations, they often make an adjustment based on a reference point. The so-called original price firstly stressed by the live broadcaster serves as such reference point. More than half of respondents agreed that the original price of a product was an important reference when making shopping decisions.

The psychological mechanism of the discount stimuli under this model can also be analyzed from the perspective of mental accounting. An important feature which makes mental accounting differ from real accounting is that it is non-substitutable. In other words, the money in mental accounting cannot be completely replaced. Due to this feature, when users are offered preferential discounts such as amount-specific discounts, they will elect to buy more than two products. Although the actual total price exceeds the original price, they believe that these products fall into the same type of account from the perspective of mental accounting. If you spend the same amount in two times, the pain of losing money in separate buying is greater than the pain of losing money all at one time. Hence, consumers will feel that the former means more spending. Under this psychological mechanism, users tend to make irrational consumption decisions.

### 3.3. Value Perception and Psychological Experience

From the perspective of individual consumers, behavioral economics researchers have successively raised objections to the views held by classical economists that consumption is a rational economic behavior. They believe that consumption is not merely a rational economic behavior, but a perceptual behavior that is jointly influenced by consumers' personal characteristics, emotional factors, social culture and specific situations. Therefore, live broadcasters can improve consumers' shopping desire through in-depth influence of these factors.

From the perspective of the characteristics of livestreaming platforms, live streaming sale can display product information from multiple dimensions in an all-round way, provide consumers with experiential content sharing, and create a relaxed rush buying atmosphere, which exerts greater psychological influence on consumers compared with conventional marketing. The characteristics of livestreaming platforms, the attractiveness and characteristics of live broadcasters, and satisfactory interactivity during livestreaming have a profound influence on consumers' continuous willingness to make purchase and use the platforms. The real-time interaction between consumers and live broadcasters provides convenient services that allows efficient answering of questions. Furthermore, the interesting interaction activities such as such as lottery and free experience satisfy the psychological needs of consumers and make them feel that they are being respected.

From the perspective of consumers' behaviors, the interactivity of livestreaming sales, the livestreaming opinion leaders, and the quality of livestreaming content have an influence on consumers' psychology and behavior (Yulihasrie et al., 2011). According to the AIDMA marketing theory, the five stages of paying attention to commodities (attention), triggered interest in shopping (interest), activation of consumption desire (desire), generation of profound memory (memory), and implementation of consumption action (action) play a decisive role in final consumption. Therefore, a consumption behavior is the result of subjective judgment and attitude of consumers and other factors.

Digital consumption behavior refers to the all actions taken by consumers to acquire, use, and dispose of goods or services on the network, including the decision-making process before these actions. The theoretical model of digital consumption behavior is a second-stage behavior model under model of AIDMA theory, namely the AISAS theoretical model with the following five stages: paying attention to commodities (attention), triggered interest in shopping (interest), search of information (search), implementation of consumption action (action), and sharing of information (share).

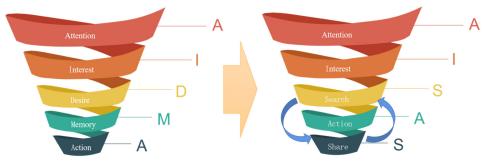


Figure 3. AISAS digital consumption behavior theory

Compared with conventional consumption behaviors, AISAS digital consumption behavior theory has different characteristics, indicating that consumers have gradually changed from passively acceptance of commodity information and marketing promotion to active acquisition and cognition. It emphasizes more on consumers' research of information paying attention to and development of interest in commodities, as well as the sharing of information after consumption. The marketing environment of livestreaming sales allows consumers to perceive the value of commodities and experience commodities through entertainment in search and sharing of information, thus establishing the connections among a series of online consumption behaviors: commodity-user mutual perception, generation of interest- interaction, connection between user and seller-mutual communication, action-buying, experience - sharing.

### 4. Conclusion

In livestreaming of internet celebrities, consumers' mental accounting, value perception, and loss aversion are important psychological characteristics that affect shopping decisions. Based on foregoing conclusions, the following suggestions are put forward for livestreaming sellers and consumers:

Suggestions for livestreaming sellers. Live streaming sellers should pay attention to easy availability of commodity information to consumers and the interactive experience. E-commerce platforms should provide easy-to-operate functions, such as viewing basic product information through navigation buttons, and other functions and special effects that enhance interaction; livestreaming sellers should not only display products in an all-round way, but also offer different programs to improve entertainment and actively interact with consumers through functions such as bullet comments to shorten the psychological distance of consumers. At the same time, livestreaming sellers should reasonably mobilize consumers' metal accounting and stimulate their shopping desire, thus concluding transactions.

Suggestions for to consumers. Unplanned or even unwanted impulse shopping often result in waste of money and regret. Therefore, consumers should not blindly believe in the marketing rhetoric of live broadcasters in livestreaming sales. Even if they are psychologically close to live broadcasters, consumers should buy products which will be used in the near future based on normal needs. In addition, consumers are encouraged to make a necessary shopping plan to convert the classification in mental accounting into actual expenditure plan. In this way, in face of tempting and vague expenditure, they can improve self-control and be less influenced by the flexibility of mental accounts, thus avoiding impulse consumption.

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