

Analysis of the Impact of Blind Box Consumption on People's Mental Health

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Abstract. In recent years, blind boxes have quickly gained popularity among young consumers by offering the thrill of the unknown. This new consumption model has transformed blind boxes from mere commodities into outlets for consumers to vent their emotions, express themselves, and engage in social interactions. Consumers experience the thrill of opening the boxes to obtain unpredictable rewards, which triggers psychological anticipation and pleasure, thereby enhancing the appeal of blind boxes. However, some consumers become overly obsessed with obtaining the blind boxes they desire or pursuing rare editions, leading to excessive spending and causing personal financial stress as well as negative emotions such as anxiety and depression. The popularity of blind boxes is driven by complex psychological mechanisms. This study aims to explain these mechanisms from easily understandable aspects such as social comparison and self-identity, compulsive buying disorder, and operant conditioning. The study focuses on the psychological motivations behind blind box consumption, analyzes its potential harms, and provides certain solutions and strategies. The research finds that understanding the psychological motivations of blind box consumption can help prevent excessive spending behavior, enhance consumers' self-regulation abilities, and provide a scientific basis for social management and business practices.

Keywords: Blind box, Consumption, Psychology

1. Introduction

Blind boxes recently have become a channel for consumers to vent their emotions, a vehicle for self-expression, and an important medium for social interaction. According to the public data released by Pop Mart, among the consumers who purchase blind boxes, the 18-24 age group accounts for 32%, and the 25-29 age group accounts for 26%. The combined proportion of these two groups alone exceeds 60% [1]. This consumption form not only meets people's pursuit of novel experiences but has also gradually become an important medium for emotional regulation, individual expression, and social interaction. However, the psychological mechanism of blind box consumption is complex. The factors of uncertainty and scarcity are prone to trigger excessive purchasing behavior. Some consumers repeatedly invest to pursue specific styles or hidden editions, which may lead to increased economic pressure and psychological burden and even induce negative emotions such as anxiety and depression.

This study aims to explore the complex psychological mechanisms underlying the popularity of blind boxes from a psychological theory perspective. The research will use social comparison, self-identity, compulsive consumption disorder, and operant conditioning as the main analytical frameworks to analyze the behavioral patterns and psychological effects generated by consumers during blind box consumption, as well as the potential hazards of excessive consumption, and provide certain solutions and strategies. The results will provide a new perspective for understanding the psychological impact of blind box consumption, help consumers recognize the essence of blind box consumption, and enhance their awareness of rational consumption. It also provides a theoretical basis for relevant regulatory authorities to formulate policies to maintain the positive development of blind box consumption and for enterprises to optimize marketing strategies.

2. Psychological motivations for blind box consumption

2.1. Self-identity

Consumption is a core element that gives meaning to our daily lives. It not only meets material needs but also carries significant social meaning and psychological functions. Through consumption, people can express themselves. Blind box follows a gambling pattern of "stimulation-pleasure-pleasure enhancement-addiction." The ecstatic people want to continue this kind of happiness, while the disappointed people want to turn the tables [2]. Blind boxes achieve this by combining rich and unique character IPs and themes, allowing consumers to showcase their personalities or interests by purchasing different types of blind boxes. For instance, those who are passionate about a specific anime will collect various blind box figurines related to that anime to demonstrate their love for it. Displaying personal collections also subconsciously conveys, "I am such a unique person. This is me." At the same time, consumers who like the same IP often form specific communities, thereby encouraging more people to purchase corresponding blind boxes to join this circle. Additionally, through the process of opening blind boxes, consumers can explore their latent hobbies, which is of positive significance for enhancing self-identity.

Additionally, when consumers draw the desired or rare models in the blind boxes, they usually share their draws on social platforms to gain admiration and likes from others. Thus, the blind boxes have become a means of showing off, enabling players to gain higher status and recognition within the blind box community. This leads to a self-perception of "I am a successful collector; I am really great," and this positive emotion can also provide temporary psychological comfort to young people under real-life pressure.

Finally, blind boxes also have a social function. When discussing blind boxes, it can bring closer the distance between classmates or friends. As the blind box social circle expands, blind boxes have become a new form of social currency, influencing more and more young people. Even in society, there are similar cognitive biases, such as "Not collecting Pop Mart means you are out of this era" or "Not collecting Pop Mart means you are not a new-generation trendsetter." To reduce this sense of social exclusion and gain identity recognition, young consumers will actively participate in the blind box social circle [3].

Today's young people place greater emphasis on expressing their individuality and expressing themselves. Therefore, during the consumption process, they have significantly increased the importance they attach to experiences and emotional satisfaction. When people draw out rare collectible boxes or get the ones they desire, even if they just display them as decorations, consumers will feel a sense of achievement and satisfaction, enhancing their sense of self-identity.

This psychological experience makes consumers feel that they have a unique talent and confidence in collecting these collectible boxes, thereby further enhancing their self-awareness and self-identity.

2.2. Operant conditioning and intermittent reinforcement

Skinner's classic experiments introduced operant conditioning, which can explain the psychological mechanism behind the addiction of blind boxes [4]. In the experiment, a hungry mouse was placed in a test box, and the box had a lever. During the mouse's free movement in the box, it accidentally pressed the lever, and it would automatically receive a food pellet. At first, the act of pressing the lever was a random behavior, but after several accidental attempts, the mouse realized that there was a causal relationship between "pressing the lever" and "receiving food." Therefore, the mouse would actively press the lever to obtain more food. This experiment revealed the mechanism by which actions are shaped and changed by their consequences, and this principle has important reference value in explaining the addictive behavior of people towards blind box consumption.

In the consumption of blind boxes, the core charm lies in the "blindness," meaning that consumers cannot predict the specific style of the items inside the box. These items may include hidden editions and limited editions. It is precisely because consumers cannot always get the edition they want or the hidden edition in each attempt, but occasionally they can still get [5]. Therefore, whenever consumers fail to get what they want, they do not give up easily; instead, they think that their luck was bad this time and maybe it will be better next time. This intermittent and unpredictable reward mechanism leads to the behavior of consumers becoming more addicted to buying blind boxes.

By leveraging the principle of operant conditioning, blind boxes have established an uncertain reward system, stimulating the strong anticipation of blind box consumers for "getting their desired edition next time." In simple terms, consumers who keep buying blind boxes are like the "rats" in Skinner's experiment, constantly "pressing" the purchase lever for the blind boxes that they are attracted to.

2.3. Compulsive shopping disorder

Kraepelin first described excessive buying behavior as compulsive and leading to adverse negative consequences, such as debt. The concept of excessive buying was further elaborated by Bleuler who described the behavior as a "reactive impulse" that could not be helped, and considered this condition under the same category as kleptomania and pyromania [6].

Compulsive buying disorder is a kind of dysfunctional consumption behavior. Its characteristic is the recurring and uncontrollable urge to shop. People with this disorder lose control over their shopping behavior and continuously engage in excessive shopping [7].

The uncertainty of blind boxes provides consumers with certain emotional regulation functions, but it also opens a path for the blind box-loving group to shift from entertainment-based consumption to compulsive buying disorder. Firstly, the core of compulsive consumption is craving, and blind box consumers often have the anticipatory pleasure of "the next one will be the style I want." This continuous craving is a sign of addiction. Secondly, compulsive consumption is usually done to escape or numb one's negative emotions (such as stress, anxiety, depression, and emptiness). The act of opening blind boxes can temporarily divert attention and become a channel to release unpleasant emotions. Just by picking up the phone and placing an order in the app or entering the store, the process of selection-expectation-opening the box can instantly shift attention away from painful emotions.

Furthermore, the sunk cost fallacy further drives consumers to continue their investment. For instance, when consumers have spent a certain amount of money but still haven't drawn the desired style, they are likely to have the thought that "I have already spent so much; giving up now would mean losing everything." They experience loss aversion due to the silent cost and often desire to recoup their losses, holding the belief that "maybe the next one will win." As a result, they keep making purchase decisions [3]. This attempt to recover losses, leading to deeper and deeper entrapment in the trap, is the key reason why compulsive behaviors are difficult to interrupt.

It should be noted that not everyone will develop a compulsive impulse towards blind box consumption. However, for those who already have poor emotional regulation abilities, have a tendency towards impulsive consumption, or already have compulsive consumption disorders, blind boxes may further intensify their manifestations of compulsive consumption behavior.

3. Negative effects of blind box consumption

3.1. Emotions and mental health

Because blind box consumers' craving for the unknown triggers dopamine, this mechanism also leads many people to become addicted to blind boxes. However, when they believe they are certain to get a desired style but spend a lot of time and money only to miss out, a strong sense of frustration and anxiety will surge, sometimes even causing self-doubt. Blind box consumption can also be like the objectification of self-worth. If one overly relies on having a certain rare blind box, due to the excessive pursuit of such blind boxes, it will cause instability in self-identity. Once they fail to obtain it, they will become self-denying. Finally, the mood of buying blind boxes is like a roller coaster ride, and the momentary excitement after opening often leaves a huge gap and emptiness [8].

3.2. Social and interpersonal levels

In the friend communities formed due to blind boxes, it is also easy to lead to a comparison of relationships. From simple sharing to the comparison of collections, this makes the gap between people grow wider and wider. Secondly, consumers who are only focused on drawing blind boxes in daily life may gradually neglect their families and friends, only indulging themselves in the virtual world. Moreover, if the amount spent on blind boxes is concealed from family members, when it becomes impossible to hide the huge amount, a trust crisis with parents will also arise, damaging the relationship within the family.

3.3. Economic and life aspects

On the economic front, blind boxes priced at around 50 to 60 yuan give people the illusion that they can be purchased sustainably without significantly impacting their daily lives, leading them to repeatedly buy them unconsciously. The sunk cost fallacy often causes consumers to keep investing, eventually leading to debt problems. In severe cases, it can have negative impacts on both personal development and family happiness. Money that could have been used to improve one's quality of life, travel, or further education is instead spent on blind boxes that can only be displayed in home cabinets, hindering personal growth and even posing risks to short-term daily expenses.

4. Defense and solution strategies

Firstly, consumers should enhance their self-awareness and self-monitoring abilities and treat blind box consumption rationally. Understand the marketing and psychological mechanisms of blind boxes, and control their rational consumption. When purchasing, sincerely ask: Do you really like this type of product, or are you impulsively buying to follow the trend? Secondly, consumers can set a budget for blind box consumption and record their monthly spending on blind boxes for self-monitoring. Additionally, they can also find other hobbies to replace their reliance on blind boxes. For example, cultivating hobbies that are beneficial to physical and mental health, such as art or sports, can bring happiness and satisfaction. This is also beneficial for social interaction, as it allows them to meet more people who are passionate about art and sports.

In the operation of blind box products, enterprises should make adequate preparations to avoid the situation where phenomenon-level best-selling blind boxes suffer from insufficient supply after being highly sought after by many people. Insufficient supply can lead some consumers to purchase at high prices to obtain the scarce blind boxes they desire, thus engaging in blind following and speculative behaviors. Enterprises should reasonably control the supply rhythm of products and scientifically manage the limited edition strategy to ensure market order and consumer interests.

The government should establish regulatory departments to strengthen the guidance and management of the consumption behaviors of minors. Firstly, what needs to be prevented among young people is that they are driven by the mentality of blind consumption. We should change their concept of excessive following and purchasing and guide minors to have a rational understanding of the blind box, forming a healthy consumption concept [9]. Strictly enforce age restrictions to prevent minors with immature minds from getting into excessive consumption of the blind box. At the same time, we should be vigilant against the excessive promotion of the blind box by shopping malls to avoid consumers paying high prices to purchase the blind box, allowing "scalpers" to profit, and making the blind box a speculative tool. Through the dual measures of government supervision and enterprise self-discipline, we can effectively reduce the social and economic problems caused by blind box consumption.

5. Conclusion

This study explores the psychological impact of blind box consumption on consumers and attempts to systematically analyze its causes and mechanisms from a psychological perspective. By reviewing and summarizing relevant literature from both domestic and international sources, the psychological mechanisms that lead to people's addiction to blind boxes were identified. These can be mainly summarized into three aspects: Starting from the social comparison theory, blind boxes satisfy consumers' needs for self-identity and social identity through their characteristics such as scarcity, collectability, and unique IP design. Consumers express their individuality and showcase their interests by purchasing and displaying blind boxes, and at the same time form a specific social circle, thereby obtaining a sense of identity and belonging. Secondly, based on the principle of operant conditioning, the marketing strategies of opening blind boxes continuously stimulate consumption through intermittent reinforcement; the uncertainty of the extraction process and the occasional reward mechanism make consumers expect "the next time I can get the desired style," thus constantly repeating the purchasing behavior. Finally, based on the theory of compulsive consumption disorder, this study points out that the temporary pleasure brought by blind box consumption may evolve into addictive behavior. In the process of consumers pursuing rare styles or

satisfying immediate psychological needs, they may develop a persistent craving and sunk cost mentality, thereby forming an uncontrollable consumption pattern.

In conclusion, this study has constructed a systematic theoretical framework from self-identity and behavior reinforcement to addiction mechanism, providing a reference for understanding the psychology of blind box consumption. However, this paper also has certain limitations. Firstly, this study did not conduct a questionnaire survey, and the data sources mainly relied on literature analysis, resulting in certain limitations in the conclusions. Additionally, the search scope was narrow, and some relevant studies may have been missed. Future research can supplement empirical data through questionnaire surveys and expand the scope of literature search to improve comprehensiveness.

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