

A Study of the Influence of Marketing Strategy on Consumer Impulse Buying Behavior During Online Shopping Festival from the Perspective of Mental Accounts

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Abstract: With the development of technologies such as big data, artificial intelligence, Internet of things and cloud computing, the infrastructure system of various industries has been reconstructed because of the prosperity of digital transformation. The online shopping festival has also become the product of the vigorous development of online shopping platforms, having attracted increasing attention from both researchers and practitioners as a special consumption scenario. Therefore, the research topic of this paper is to analyze the influence of various marketing strategies on consumers' impulsive shopping behavior during online shopping festival from the perspective of mental accounts. By analyzing a large amount of existing literature, this paper summarized the three most important marketing strategies: shopping atmosphere, characteristics of e-commerce live streaming and payment policies. Additionally, this paper makes a reasonable explanation for the mechanism of impulsive consumption behavior from the perspective of mental accounts which provides theoretical basis and practical guidance for e-commerce platforms and merchants to improve and optimize the marketing strategy of online shopping festival to attract and maintain the enthusiasm of consumers.

Keywords: online shopping festival, impulse buying behavior, mental accounting theory

1. Introduction

With the continuous development and popularization of Internet technology, online shopping has become an indispensable part of People's Daily life. Online shopping brings consumers a unique shopping experience. Online shopping can provide a wider range of goods to choose from and reduce the cost for consumers to obtain information, which also means that the competition among sellers, as well as online shopping platforms, will become increasingly fierce. Therefore, in order to attract consumers' attention and cultivate consumers' loyalty, shopping platforms have created a unique consumption scenario of online shopping festivals. With the popularity of the "Double 11" online shopping festival, other shopping platforms have created their own exclusive shopping festival activities, such as Jingdong's "June 18" shopping festival and Suning's "August 18". During the online shopping festival, consumers' purchasing behavior also presents unique characteristics.

During the online shopping festival, consumers are stimulated by sellers' price promotion, website shopping environment and other external stimuli, which can easily lead to impulsive

shopping behaviors. Impulse shopping behavior is a kind of purchase behavior that generally exists in reality. It refers to a kind of irrational behavior that consumers are influenced by impulse ideas and put into actual action when shopping. Impulse shopping behavior is more likely to occur in the network environment compared to the traditional shopping environment [1].

Under the theoretical system of behavioral economics, mental accounting is considered as an important factor for rational people to make financial decisions. Mental accounting theory gives insight into the understanding of complex decision-making behavior which may run counter to maximizing economic benefits such as impulse buying behavior. The flexibility of mental account also mediates the relationship between marketing availability and online impulse buying [2].

Throughout the current literature on e-commerce, the research on e-commerce mainly focuses on online shopping preferences and consumer purchase behavior, and the research related to impulse buying is still in the development stage, especially the impulse buying behavior in the context of online shopping festivals. Therefore, the research topic of this paper is to analyze the influence of various marketing strategies on consumers' impulsive shopping behavior during online shopping festivals from the perspective of mental accounts. This paper attempts to summarize and elaborate the unique factors of online shopping festivals which stimulate the impulsive consumption behavior of consumers from the existing literature, selecting three components of online shopping festivals which are shopping atmosphere, e-commerce live streaming and payment policies as the key factors. And this paper explains the effectiveness of these three marketing approaches from the perspective of mental accounts so as to put forward suggestions to stimulate consumption reasonably.

2. Concept Introduction

2.1. Mental Accounting

“Mental accounting” was first formally proposed by Professor Thaler from the University of Chicago, and it has already become an important branch of behavioral economics. It refers to the psychological cognitive process by which people mentally code, record, classify, and value income and payments when making economic decisions. In simple terms, people have different mental budgets for different types of income and expenditure scenarios.

By summarizing previous studies, mental accounts have the following three characteristics [4]. Hedonic editing indicates that the goal of mental account valuing is to promote psychological satisfaction rather than seeking to maximize economic rewards. Non-fungibility means that different mental accounts are difficult to replace each other, or there is a certain threshold. Flexibility illustrates that people's mental account planning can change with a number of factors rather than staying the same.

The double-entry mental accounting means that people have two channels in their consumption decisions. One channel records the positive utility obtained from consumption, and the other channel records the negative effect of payment. And the pain of paying for a particular product or service can undercut the pleasure of consuming but it also be alleviated by the possible satisfaction that will be obtained from the consumption [5]. “Coupling” is another important concept in this theory, which refers to the closeness of consumption to payment. And the degree of coupling often affects people's consumption experience and actual purchasing decisions [4]. For instance, the mental cost felt by “paying in advance” is significantly smaller than that of post-consumption payment when enjoying the pleasure derived from the consumption. The longer the interval between consumption and payment, the weaker the coupling between them, and the perceived mental cost is more likely to be close to zero, which will lead to more mental value utility [5]. It is worth mentioning that Prelec and Loewenstein put forward two coupling coefficients to double-entry mental accounting theory: pleasure attenuation (α), and pain buffering (β), which exert

a powerfully-mediating influence on the mechanism of perceived emotion and consumer purchase behavior [6]. When the perceived pleasure of consumers is greater than the pain of payment, the pain buffering coefficient β will boost and the purchase intention will be stronger; when the perceived pain of payment is greater than the pleasure of consumption, the happiness attenuation coefficient α will increase and the purchase intention of consumers will be weaker.

2.2. Herd Effect

In the field of consumer behavior, herd effect mainly refers to the behavior that consumers decide to imitate other consumers' shopping behavior due to the scarcity of information they have obtained and these imitative actions are often far from what they had originally intended. Yin Meng and Li Qi empirically proved the herding effect in consumer shopping behavior during online shopping festival [1]. On the online shopping platform, there are numerous sellers, rich types of goods, and various promotional activities. Consumers often lack enough knowledge, time and energy to compare and analyze which product or service is the best, so consumers will imitate the purchasing behavior of other consumers in order to reduce the uncertainty of shopping.

2.3. Impulse Buying Behavior

Impulsive buying is omnipresent in daily life and is considered as a kind of unplanned shopping. Consumers' impulsive shopping behavior is affected by many factors such as external environment and personal characteristics of themselves. With the development of e-commerce, impulse shopping is more prevalent in the online environment because of information explosion in the cyber consumption environment [7].

3. The Analysis of Marketing Strategy of Online Shopping Festival

3.1. The Shopping Atmosphere during the Online Platform Shopping Festival

Consumption atmosphere is an important factor affecting consumer behavior. An infectious consumption atmosphere has the power to affect consumers' initial shopping ideas and wheedle them into making shopping decisions contrary to rational thinking. Based on SOR theory, Liu yang and Li Qi verified that the interaction, entertainment of the shopping festival atmosphere could trigger a consumer's pleasurable mood which will eventually lead to impulse buying behavior [8].

The interaction not only refers to the responsive interaction between online shopping platforms and participants with the help of the Internet and modern technology, but also includes the social activities among different consumers. From the perspective of mental account theory, consumers are inclined to trust the reviews and opinions given by other consumers rather than the description of selling point created by the sellers. Additionally, during the online shopping festival, there is plenty of discounts and marketing campaigns which probably confound the consumers when they evaluate and select the products, which makes consumers assume that they do not obtain sufficient information to make the best purchase decisions and the value of their loss account could be extremely high [9]. As a result, they are more likely to impulsively imitate other people's shopping behavior according to the Herd Effect theory [1]. Because imitating someone who is relatively trustworthy, consumers can reduce their perceived risk of the product and the value of the loss account in the double-entry mental account, leading to a higher possibility of buying.

Entertainment of the shopping festival atmosphere also can significantly influence on the impulse buying behavior can be explained by the flexibility of the mental account. Sellers will integrate snatching, interactive games, lottery and other interesting activities into the marketing activities to improve the entertainment degree of consumption process [10]. Hence, this kind of

novel shopping atmosphere can entice consumers to change their initial mental account classification. For instance, when a consumer decides to buy a mug online as an expenditure from the household goods account with a relatively low budget, but during the online shopping festival the consumer may create a new account called entertainment account with a higher budget to cover the vague, unclassified expenses from the complex process of purchase. In addition, consumers can not only possess the tangible utility of the products, but also get a pleasant and cheerful shopping experience as additional benefit, which invisibly increases the value of consumers' profit account.

3.2. Characteristics of E-commerce Live Streaming during the Online Platform Shopping Festival

Live streaming of e-commerce is an important part of online shopping festival. E-commerce live broadcasting has unique sales advantages such as real-time interaction, detailed product display and building trust. Huang xiaoyan concludes that two dimensions of the availability of e-commerce live marketing can promote consumers' online impulse buying and the flexibility of mental account partially mediates the relationship between marketing availability and online impulse buying [11]. The two dimensions of the availability of live marketing refer to the availability of commodity information and the availability of anchors' attributes. The product information, which contains the product function and use experience, is conveyed in a vivid and detailed way in the live broadcast of e-commerce, which can enhance consumer trust and reduce perceived risks, which is more likely to induce consumers' shopping behavior.

Another factor that could trigger consumer's strong desire to snap up order is the characteristics of anchors of the live streaming. Consumers' perceived functional value and perceived emotional value are positively impacted by the e-commerce anchors' popularity, authenticity, and active participation [12]. The impulse buying behavior in online live web cast can be explained by mental accounting theory. Consumers with higher psychological account flexibility tend to fabricate reasons to take action buying when facing consumption decisions, and their impulse consumption willingness is often higher, and they will even construct additional deficit accounts because of advanced consumption. On the contrary, consumers with low mental account flexibility have low account flexibility, strong self-constraint and lower consumption intention. In the context of live streaming e-commerce, merchants will mobilize consumers' emotions by controlling product information, fuzzy classification, and increasing anchor interaction, increasing the temptation of products to consumers, and then stimulating consumers to reach a "psychological cost", breaking the constraints of mental accounts.

Through the mediating effect of double-entry mental account, the characteristics of e-commerce live streaming can promote consumers' purchase intentions [11]. In the e-commerce live broadcast, the anchor enhanced the authenticity perception of the practical value of the product through a series of elaborate explanation skills, making consumers totally immerse themselves in the genuine pleasure derived from the consumption of a specific product. In this way, Consumers' attention to the price of the product can be weakened, effectively reducing the perception of payment pain. The higher the authenticity, the stronger the consumption pleasure of consumers, and the lower the happiness attenuation coefficient α , and the higher the pain buffering coefficient β , contributing to a higher possibility of buying.

3.3. Payment Policies during the Online Platform Shopping Festival

Special offer is an indispensable part of the online platform shopping festival. In order to attract consumers, e-commerce platforms usually introduce a variety of preferential policies, such as

discounts, complimentary gift and paying by instalment, making commodity prices have a greater economic advantage than usual.

Product price has always been a key factor affecting consumers' purchase decisions. Research shows that a price discrimination strategy can effectively improve online retailer profits. On the network platform, although sellers can also adopt dynamic pricing and differential pricing, the probability of success of price discrimination strategy is greatly reduced due to the convenience and low cost of obtaining information on the Internet [13]. Accordingly, the pre-sale strategy has become a sales promotion method often used by sellers during the online shopping festival. And typical examples are "Tmall Double 11" and "JD.com 618" pre-sale activities which prove that pre-sale strategy can stimulate consumption and increase sales. Different from the spot sales model, the separation of consumer purchase and consumption in the pre-sale model has an important impact on consumer behavior. "Ant Huabei" is a typical case of using mental accounts to promote consumption in advance. The existence of mental accounts will make consumers make some irrational decisions, which will affect the sales and pricing strategy of products. In the real platform consumption, the two-stage pre-sale mode of deposit first and then the final payment is gradually adopted, which possesses its unique advantages [14]. In the two-stage hybrid pre-sale model, consumers not only delay the payment time of the final payment, but also can guarantee the availability of products with the payment of a small deposit. The delay of the final payment of products increases the value of the pain buffering coefficient β of consumers, thus enhancing consumers' purchase intention to a certain extent.

Point exchange is also one of the common promotion means of online shopping festival. Points exchange refers to the process that consumers obtain corresponding points rewards through previous purchases and repeat consumption with points. In this process, the online shopping platform inconspicuously creates a "point account" for consumers to spend. When payment is cash, consumers tend to focus on the product itself. When the payment method is points, attention tends to be focused on non-product information such as discounts, and purchase intention is stronger. Because Consumers regard discount as unexpected income which does not come from the mental account for general income, and will have hedonic impulse buying behavior [14]. Besides, there is a time difference between consumers' use of point payment and point acquisition, which leads to larger pain buffering coefficient β and a smaller pleasure attenuation coefficient α of consumers.

4. Suggestions

4.1. An Interactive Shopping Atmosphere

The way to create customer immersive shopping can be realized by establishing the interaction between customers and sellers as well as the interaction between customers and customers. These two modes of interaction are both social and bidirectional. The biggest difference between the two is that the purpose of interaction between customers is very simple, just sharing and communication, but the interaction between consumers and sellers is much more complex and repulsive due to business relationship. This is also the reason why enhancing the sense of interaction between consumers is vital for online shopping platforms to build immersive shopping experience for users. It is highly advised to establish a positive, friendly, mutual help shopping communication community where consumers can exchange experiences and real information about shared products, which can also reduce consumers' information search costs and the possibility of blind impulse consumption [8].

Additionally, e-commerce platforms should use various forms of media to create an atmosphere of online shopping festival in which all people participate, all people buy and all people revel, so as to effectively stimulate consumers' willingness to participate.

4.2. Novel E-commerce Live Streaming

Live streaming e-commerce should attach importance to consumers' convenience in obtaining commodity information and interactive experience. E-commerce platforms need to set up simple and easy usage, such as viewing commodity basic information through navigation buttons, and other interactive functions and special effects. Anchors themselves should not only display products by an all-round and multi-angle approach, but also set different programs to enhance entertainment, and actively interact with consumers through bullet screen and other functions to narrow the mental distance of consumers. At the same time, live streaming anchors should make use of speech techniques to guide consumers to make fuzzy account classification of products, reasonably utilizing the flexibility of consumers' mental accounts to stimulate their desire to buy [2].

Additionally, E-commerce live broadcasting enterprises should pay attention to the consumption situation and decision-making environment of e-commerce live broadcasting. Different barriers should be built from the aspects of entertainment, mobility, authenticity and urgency of e-commerce live broadcasting to avoid aesthetic fatigue of consumers due to the homogenization of live broadcasting content information and marketing mode. It is highly desirable for enterprises to apply 5G technology to integrate AI and live streaming in order to increase the perception of authenticity and pleasure of consumers when making consumption decisions.

4.3. Flexible Payment Policies

When the platform makes the point exchange plan, it can guide consumers' attention more to the diversification of points. It is easier to increase consumers' purchase intention by shifting consumers' attention from the product to the point spending. In addition, the point exchange of entertainment products may be more popular than the point exchange of daily necessities because people rarely use money in general income accounts to buy pleasure-oriented products. But the non-generic income of points is highly likely to be spent on hedonic products.

With regard to –pre-sale strategy, sellers are supposed to provide a variety of sales methods, which can not only take advantage of the effect of pre-sale promotion activities, attracting some time-insensitive consumers to participate in the pre-sale activities, so as to reduce the inventory cost of sellers. It can also provide time-sensitive consumers with purchase channels through conventional sales, accumulating more feedback on product reviews, and reduce the uncertainty of other consumers' perception of online products [13].

5. Conclusion

This study found that mental accounts can be a good tool to explain consumers' impulse behavior during online shopping festivals. The shopping atmosphere, characteristics of e-commerce live streaming and payment policies exert great influence on consumers' purchase intention and consumption behavior by relying on the mediating effect of mental accounts. In the forming mechanism of impulsive consumption behavior of consumers, the effect of the “flexibility” of mental account, the pain buffering coefficient β and the happiness attenuation coefficient α of double-entry mental account are conspicuous and prominent.

Consumers' shopping behavior during the online shopping festival is a complicated decision-making process and both perceptual and rational psychological operations should be considered. And in this particular scenario, impulse consumption behavior is omnipresent. However, most of the current research on mental accounts and consumers' impulse buying focus on the traditional offline shopping mode, and there are few discussions on the scene of online shopping festivals. As a result, this study made up for the blank of this field, expanding the scope of application of mental accounts. Plus, this paper combed the mechanism of mental accounts during

the online shopping festival and provides theoretical guidance and pragmatic suggestions for the marketing strategy design of online shopping platforms.

Based on the elaboration of this paper, online shopping platforms should create a festival atmosphere with the participation of the whole people through public publicity, attracting more potential consumers, optimizing the experience of all links of online trading, increasing the sense of fun and entertainment of shopping, and taking advantages of herd mentality of consumers to improve the participation rate and purchase rate of consumers in the online shopping festival.

This paper also has a limitation: as it becomes more and more common for ordinary middle-aged and elderly people to participate in online shopping festivals, there may be significant differences in the mental accounts of consumers from different age groups which may possess impact on the formation of impulse shopping. But this paper have not categorize the discussion according to age group, therefore, the conclusion may have a certain one-sidedness.

Future studies are supposed to try to take more personal characteristics into account in the mechanism of the influence of marketing strategies on impulsive consumption during online shopping festivals. It is hoped that the moderating effect of individual characteristic factors in the mechanism can be found through further empirical research.

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