

# The Study of the Effect of Virtual Brand Community Interaction on Impulse Buying: The Moderating Role of Self-Construal

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## Abstract

With the rise of community marketing, it is particularly important for enterprises and the development of community economy to understand consumers' consumption behavior in the community environment. In addition, impulse buying has attracted more and more attention because of its universality, and it has become an important marketing channel to promote consumers' impulsivity purchase. Based on the theory of social identity and from the perspective of interaction mechanism, this paper empirically discusses the three dimensions of virtual brand community interaction, namely the action mechanism of the human-machine interaction, information interaction and interpersonal interaction on impulse buying, and introduces self-construal as a moderating variable for further exploration. The results show that the three dimensions of virtual brand community interaction have a significant positive impact on impulse buying. The interdependent self-construal plays a positive moderate role between the virtual brand community interaction and impulse buying, and the independent self-construal plays a negative moderate role between the virtual brand community interaction and impulse buying.

## Keywords

Virtual Brand Community Interaction, Impulse Buying, Self-Construal

## 1. Introduction

In the 2019 “double eleven online shopping event”, businesses through a series of campaign, to stimulate consumer demand, eventually Tmall total turnover was \$268.4 billion, and the national network retail turnover reached 870 billion yuan, once again reaching new heights of history. Most of the goods are under consumers' impulse buying. In this era of information explosion, consumers are

more and more likely to produce impulse buying. Relevant studies show that consumers are more likely to produce impulse buying in the network environment, so promoting consumers' impulse buying has become an important marketing channel for many businesses to achieve the goal of profitability. Tmall and Taobao stores continuously interact with consumers through the establishment of their own virtual brand community, constantly impact on consumers' thinking, meet consumers' demand for products and brand identity, and finally achieve the purpose of profitability. Impulse consumption has always been a mystery in the field of marketing, which is considered a gray area. In recent years, the research on impulse purchase behavior has been improved, and the concept connotation, trigger mechanism and influence mechanism have been broadened to a certain extent. However, there are few literatures to study impulse purchase behavior from the interaction mechanism of virtual brand community. The interaction of community members creates benefits for themselves and the brand. Moreover, community members based on community identity have strong cultural and emotional connections. It is an urgent problem to be solved whether their interaction with product information will lead to impulsive consumption.

Moreover, with the rapid development of Internet information technology, the threshold for people to access the Internet is getting lower and lower, which exerts a subtle influence on people's life, work, and study. According to the 44th statistical report on the development of Internet in China issued by CNNIC in August 2019, as of June 2019, the number of Internet users in China has reached 854 million, the Internet penetration rate is 61.2%, the number of mobile Internet users in China has reached 847 million, and the proportion of Internet users accessing the Internet through mobile phones has reached 99.1% [1]. The interactive communication on the Internet has gradually become an indispensable part of people's daily life.

## 2. Literature Review and Research Hypothesis

### 2.1. Virtual Brand Community Interaction

In essence, the interaction of the virtual brand community is an interaction through the network. With the high popularity of the Internet, this interaction between the networks has become a very common way of life.

At the beginning, Steuer (1992) first defined network interaction, believing that network interaction is a process in which users actively participate, communicate, share and change the form and content of the virtual environment through the medium of computer. Nambisan *et al.* (2009) divided interaction into product information interaction, interpersonal interaction and identity recognition interaction [2]. Wang Yonggui (2013) added human-machine interaction based on Nambisan *et al.* (2009), and divided interaction into product interaction, interpersonal interaction and human-machine interaction [3]. Ma Xiangyang *et al.* (2015) took Xiaomi community as an example and divided the interaction into

member interaction, product interaction and human-machine interaction [4]. This study synthesizes scholars' views and divides virtual brand community interaction into human-machine interaction, information interaction and interpersonal interaction.

## **2.2. Impulse Buying**

Impulse buying is a very common phenomenon in the field of marketing and consumer psychology. As early as in the middle of the 20th century, DuPont company gave the rudiment of impulse buying through the research of customers, and thought that 51% of the supermarket shopping was likely to have impulse buying, and 80% of the sales of some products came from the impulse buying of consumers. They think that impulse buying is the behavior that consumers do not plan to buy some goods in the near future, but they buy this kind of goods after entering the shopping environment, which has aroused heated discussion among scholars at home and abroad. Rock and Hoch (1985) made a distinction between impulse buying and unplanned buying for the first time, which became a turning point in later research on impulse buying. They believe that impulse purchase is more emotional than unplanned purchase. From the perspective of consumers' emotion and cognition, they believe that impulse purchase is a kind of purchase behavior with strong pleasure demand and emotional experience. Sengupta and Zhou (2007) think that people are eager to pursue happiness to satisfy their inner psychological impulse, and ignore the consequences of this behavior, resulting in impulse purchase buying [5]. Chen Xu and Zhou Meihua (2010) showed that in the context of the Internet, the possibility of impulsive purchase is greater than the possibility of purchase in physical stores, because customers will be stimulated by product information in the web page to have the desire to buy, leading them to make immediate purchase decisions [6]. To sum up, this study believes that impulse buying behavior is influenced by the purchasing environment and other factors. Consumers make immediate unplanned purchase behaviors while generating some irrational emotions and cognition.

## **2.3. Self-Construal**

The concept of self-construal was first proposed by Markus and Kitayama in 1991. They believed that different self systems would be formed under different cultural backgrounds, and individuals would have different degrees of independence or interconnection with others when defining the relationship between themselves and others. Independent self-construal, which is dominated by self orientation, emphasizes individual independence and uniqueness, which is quite common in Western individualism. And those who think that the self is related to others and want to have good interpersonal relationship, and those who take collective orientation as the leading are interdependent self-construal, which is common in eastern collectivism.

Liu Yan and Zou Hong (2007) believe that self-construal is a concrete form of self illustration, and an individual's understanding of himself based on the relationship with others [7]. Torelli (2006) believes that independent self-construal regard themselves as independent. They usually give priority to their own goals and emphasize their independence, autonomy, uniqueness, self-achievement and personal goals. Driven by their own preferences, ideals, needs and rights, they are less affected by social interactions. On the other hand, relevant self-constructors regard themselves as an integral part of the collective or group. They usually give priority to the goals of the group, emphasize the relevance and integration between themselves and the group, and tend to the harmony of the group and the responsibilities and incentives imposed by the group, role, status and cultural norms [8]. Based on the research of Markus and Kitayama, this paper divides self-construal into independent self-construal and interdependent self-construal.

#### **2.4. Virtual Brand Community Interaction and Impulse Buying**

According to self-concept consistency, customers will feel emotional benefits and values in the process of sharing information and knowledge in the virtual brand community, which will enhance their trust in the brand and affect consumers' evaluation of products or brands and their corresponding consumption behaviors. Peng Zhang *et al.* (2019) pointed out that trust, identification and interaction factors in online communities can trigger consumers' cognitive and emotional responses, and pointed out that frequent communication and interaction among members can mobilize consumers' positive emotions and product cognition. The higher the positive emotions of consumers, the more likely they are to generate impulsive buying behaviors [9]. Chen Yang *et al.* (2018) pointed out that the daily communication among members of the community, the atmosphere and atmosphere of interaction, and the degree of communication and assistance among members around products can indirectly affect impulsive purchase through community awareness, or directly affect impulsive purchase [10]. According to the theory of social identity, individuals classify themselves into the virtual brand community, and then when they communicate with other members or talk about product information with other members, they will adjust their social behavior, and then change their consumption behavior. Li Zhina (2011) believes that through experiencing social activities with common cultural atmosphere with members and interaction between members and website, and then further contact activities, group identity will be generated. The interaction among members in online brand community will play an active role in members' community identity [11]. Wei Hengshu (2016) pointed out that product interaction, interpersonal interaction and human-computer interaction can positively affect community identity [12]. Aheame and Bhattacharya (2005) showed that consumers' sense of identity has a significant positive impact on purchasing behavior [13]. Chen *et al.* (2016) pointed out that the environmental

stimulus in social networks and the information quality of text ads had a significant positive effect on the impulse purchase of consumers by studying the group users of Facebook [14].

Based on this, the following hypotheses will be examined:

H1: Virtual brand community interaction has a significant positive impact on the impulse buying.

H1a: Human-machine interaction has a significant positive impact on the impulse buying.

H1b: Information interaction has a significant positive impact on the impulse buying.

H1c: Interpersonal interaction has a significant positive impact on the impulse buying.

## 2.5. The Moderating Role of Self-Construal

In the study of self-construal, many scholars at home and abroad have confirmed that self-construal is one of the factors that affect consumers' purchase behavior. Mandel (2003) shows that self-construal has a significant impact on consumer decision-making, consumers with independent self-construal because of their conservative personality do not like risky behavior, and the frequency of impulsive purchase is less, while consumers with interdependent self-construal are more likely to have impulsive purchase behavior, especially those whose families can share the consequences of impulsive purchase [15]. The research of Torelli (2006) shows that people with independent self-construal and people with interdependent self-construal have different assessments of risks. Compared with people with independent self-construal, people with interdependent self-construal tend to rely on others' information to make their own behaviors, while people with independent self-construal tend to prefer their own inner thoughts [8]. Yu Weiping *et al.* (2017) pointed out that self-construal is an important variable in the study of the impact of environmental impact demands on green purchase intention, which affects the way of consumers perceive, process and use information, and confirmed the moderating role of self-construal, consumers with different self-construal have different expectations and processing of information [16].

Based on this, the following hypotheses will be examined:

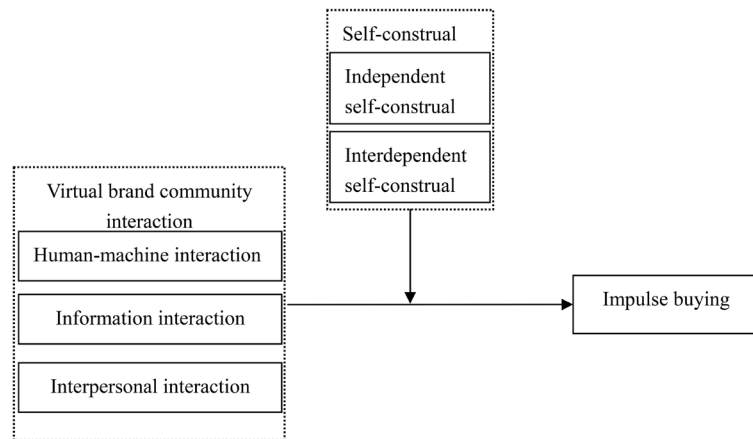
H2: Self-construal has a moderating effect between virtual brand community interaction and impulse buying.

H2a: Self-construal has a moderating effect between human-machine interaction and impulse buying.

H2b: Self-construal has a moderating effect between information interaction and impulse buying.

H2c: Self-construal has a moderating effect between interpersonal interaction and impulse buying.

Based on the above analysis, the theoretical research framework of this paper is shown in **Figure 1**:



**Figure 1.** Theoretical framework.

### 3. Research Method

#### 3.1. Questionnaire Design

This paper studies the virtual brand community and collects primary data mainly by means of questionnaire survey. As electronic digital products play an increasingly important role in people's lives, they have many brand communities, so the survey respondents chose typical members of the pollen club and vi-vo community. The questionnaire consists of three parts: the first part is a screening question. The second part is the measurement items of the variables in the model. The measurement of the variables is based on the mature scale of scholars at home and abroad. All items in this paper are measured by Likert 5-point scoring method, where 1 means full disagreement, 2 means disagreement, 3 means uncertainty, 4 means agreement, and 5 means full agreement. The measurement of virtual brand community interaction mainly draws on the scales of Nambisan *et al.* [2], Mcalexander *et al.* [17], Wang Yonggui *et al.* [3], which are divided into three dimensions: human-machine interaction, information interaction and interpersonal interaction, and a total of 9 items. The measurement of self-construal is mainly based on the scale of Lu *et al.* [18], which is divided into two dimensions: independent self-construal and interdependent self-construal, and a total of 8 items. The measurement of impulse buying mainly draws on the research of Yue Hailong [19] and so on, and a total of 4 items. The third part is demographic variables, and takes gender, age, education and monthly disposable income as control variables to conduct objective research.

#### 3.2. Data Collection

As for the recovery of questionnaires, this study mainly combines online and offline methods. In this survey, totally 360 questionnaires were sent out and 343 questionnaires were recovered. According to the screening options, 31 questionnaires that had not participated in the virtual brand community and 31 questionnaires that had not been filled in carefully or incompletely were eliminated. A total of 312 valid questionnaires were obtained, with a recovery rate of

86.7%. The sample distribution was as follows: male accounted for 50.32%, female for 49.68%; Those aged 18 - 25 accounted for 45.83%, those aged 26 - 35 for 35.9%, those aged 36 - 45 for 12.18%, and those aged 45 and above accounted for 6.09%. High school/technical secondary school and below accounted for 25.32%, junior college accounted for 36.54%, undergraduate accounted for 23.08%, master and above accounted for 15.06%; Students accounted for 16.03%, employees of enterprises and units accounted for 54.81%, public institutions accounted for 13.46%, freelancers accounted for 9.62%, and others accounted for 6.09%. Monthly disposable income below 1000 yuan accounts for 5.13%, 1000 - 3000 yuan for 25.96%, 3000 - 5000 yuan for 42.31%, 5000 - 10,000 yuan for 19.55%, and 10,000 yuan for 7.05%. In general, the samples are representative.

### 3.3. Empirical Analysis and Hypothesis Testing

#### 3.3.1. Common Method Bias Analysis

Relevant research shows that if the common method bias is serious, it will lead to fundamental errors in the research conclusions, so it is very important to test the common method bias. In this study, Harman single factor test was used for factor analysis of the scale. The results showed that the maximum explanation rate of single factor was 13.810%, which further showed that the samples used in this study did not have significant common method bias.

#### 3.3.2. Scale Reliability and Validity Analysis

In this paper, SPSS25 and AMOS23 statistical software are used to analyze the reliability and validity of the sample data. Please see **Table 1** for specific results. Cronbach's  $\alpha$  coefficient method was used to test the reliability. The  $\alpha$  coefficient of all variables was between 0.809 - 0.8 ating that the items of the scale had good internal consistency. In addition,  $\chi^2/df = 1.126$ ; RMSEA = 0.020; CFI = 0.992; TLI = 0.990. These indexes show that the fitting effect of the model is good. The combined reliability of all variables was above 0.8, the average variance extracted of all variables was above 0.5. On the whole, the questionnaire has good reliability and validity.

#### 3.3.3. Descriptive Statistical Analysis and Correlation Analysis

As shown in **Table 2**, human-machine interaction is positively correlated with impulse buying ( $r = 0.554$ ,  $p < 0.01$ ), information interaction is positively correlated with impulse buying ( $r = 0.576$ ,  $p < 0.01$ ), interpersonal interaction is positively correlated with impulse buying ( $r = 0.506$ ,  $p < 0.01$ ), Therefore, H1a, H1b and H1c have been preliminarily verified.

#### 3.3.4. Virtual Brand Community Interaction and Impulse Buying

In order to verify the hypothesis of this study, spss25.0 was used to analyze the data. Before the regression, the variance expansion factor was calculated to verify whether there was multicollinearity between variables. The results showed that the maximum value of VIF was 1.506, so there was no multicollinearity problem.

The results are shown in **Table 3**, human-machine interaction ( $\beta = 0.290$ ,  $p < 0.001$ , model 2), information interaction ( $\beta = 0.334$ ,  $p < 0.001$ , model 2) and interpersonal interaction ( $\beta = 0.219$ ,  $p < 0.001$ , model 2) have a significant positive effect on impulse buying, H1a, H1b and H1c are supported by data respectively.

**Table 1.** Confirmatory factor analysis.

Variable	Item	Factor loading	Reliability test
human-machine interaction	HUM1	0.780	Cronbach's $\alpha = 0.809$ CR = 0.810 AVE = 0.587
	HUM 2	0.786	
	HUM3	0.731	
information interaction	INF1	0.759	Cronbach's $\alpha = 0.834$ CR = 0.834 AVE = 0.627
	INF2	0.836	
	INF3	0.778	
interpersonal interaction	INT1	0.760	Cronbach's $\alpha = 0.842$ CR = 0.844 AVE = 0.644
	INT2	0.836	
	INT3	0.809	
interdependent self-construal	INTE1	0.731	Cronbach's $\alpha = 0.839$ CR = 0.840 AVE = 0.568
	INTE2	0.746	
	INTE3	0.836	
	INTE4	0.695	
independent self-construal	IND1	0.754	Cronbach's $\alpha = 0.860$ CR = 0.862 AVE = 0.610
	IND2	0.714	
	IND3	0.848	
	IND4	0.802	
impulse buying	IMP1	0.807	Cronbach's $\alpha = 0.866$ CR = 0.869 AVE = 0.625
	IMP2	0.797	
	IMP3	0.827	
	IMP4	0.728	
Holistic scale			Cronbach's $\alpha = 0.846$

**Table 2.** Mean value, standard deviation and correlation coefficient of main variables.

Variable	1	2	3	4	5	6
human-machine interaction	1					
information interaction	0.501**	1				
interpersonal interaction	0.450**	0.468**	1			
interdependent self-construal	0.199**	0.179**	0.122*	1		
independent self-construal	0.130*	0.145*	0.166**	-0.445**	1	
impulse buying	0.554**	0.576**	0.506**	0.165**	0.132*	1
Mean	3.39	3.52	3.57	3.50	3.23	3.61
S.D.	1.10	1.03	1.03	1.16	1.10	0.93

Note: N = 312, \* means  $p < 0.05$ , \*\* means  $p < 0.01$ , \*\*\* means  $p < 0.001$ .



**Table 3.** Regression results of main effects.

Variable	Impulse buying	
	Model 1	Model 2
Gender	0.011	0.019
Age	-0.034	-0.023
Education	0.015	0.042
Monthly disposable income	0.009	0.049
Human-machine interaction		0.290***
Information interaction		0.334***
Interpersonal interaction		0.219***
R <sup>2</sup>	0.002	0.466
$\Delta R^2$	0.002	0.034***
F	0.128	37.825***

Note: N = 312, \* means  $p < 0.05$ , \*\* means  $p < 0.01$ , \*\*\* means  $p < 0.001$ .

### 3.3.5. The Moderating Effect of Self-Construal between Virtual Brand Community Interaction and Impulse Buying

In the virtual brand community, whether self-construal can adjust the impact of virtual brand community interaction on impulse buying, this paper uses spss25.0 to test the method of hierarchical regression analysis. Firstly, control variables are introduced to eliminate the disturbance caused by some interference terms. Second, introduce independent variable and adjusting variable. Finally, standardized virtual brand community interaction and self-constructed interaction terms are added to the regression model to eliminate the effect of multicollinearity. The results are shown in **Tables 4-6**. In **Table 4**, the product terms of human-machine interaction and interdependent self-construal in virtual brand community has a significant positive impact on impulse buying ( $\beta = 0.276$ ,  $p < 0.001$ , model 3), the product terms of human-machine interaction and independent self-construal in virtual brand community has a significant negative impact on impulse buying ( $\beta = -0.127$ ,  $p < 0.01$ , model 6), H2a is supported. In **Table 5**, the product terms of information interaction and interdependent self-construal in virtual brand community has a significant positive impact on impulse buying ( $\beta = 0.292$ ,  $p < 0.001$ , model 3), the product terms of information interaction and independent self-construal in virtual brand community has a significant negative impact on impulse buying ( $\beta = -0.225$ ,  $p < 0.001$ , model 6), H2b is supported.

In **Table 6**, the product terms of interpersonal interaction and interdependent self-construal in virtual brand community has a significant positive impact on impulse buying ( $\beta = 0.359$ ,  $p < 0.001$ , model 3), the product terms of interpersonal interaction and independent self-construal in virtual brand community has a significant negative impact on impulse buying ( $\beta = -0.250$ ,  $p < 0.001$ , model 6), H2c is supported.

**Table 4.** The moderating effect of self-construal between human-machine interaction and impulse buying.

Variable	Impulse buying					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gender	0.011	0.002	0.006	0.011	0.004	0.004
Age	-0.034	-0.009	-0.017	-0.034	-0.018	-0.026
Education	0.015	0.039	0.044	0.015	0.058	0.057
Monthly disposable income	0.009	0.022	0.085	0.009	0.008	0.028
Human-machine interaction		0.546***	0.558***		0.547***	0.542***
Interdependent self-construal		0.049	0.095			
Human-machine interaction*Interdependent self-construal			0.276***			
Independent self-construal					0.071	0.064
Human-machine interaction*Independent self-construal						-0.127**
R <sup>2</sup>	0.002	0.312	0.383	0.002	0.314	0.330
ΔR <sup>2</sup>	0.002	0.310***	0.071***	0.002	0.313***	0.016***
F	0.128	23.021***	26.938***	0.128	23.312***	21.391***

Note: N = 312, \* means p < 0.05, \*\* means p < 0.01, \*\*\* means p < 0.001.

**Table 5.** The moderating effect of self-construal between information interaction and impulse buying.

Variable	Impulse buying					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gender	0.011	0.001	-0.018	0.011	0.002	0.002
Age	-0.034	-0.030	-0.042	-0.034	-0.040	-0.039
Education	0.015	0.033	0.063	0.015	0.052	0.060
Monthly disposable income	0.009	0.077	0.098	0.009	0.063	0.076
Information interaction		0.573***	0.596***		0.576***	0.550***
Interdependent self-construal		0.064	0.089			
Information interaction*Interdependent self-construal			0.292***			
Independent self-construal					0.052	0.054
Information interaction*Independent self-construal						-0.225***
R <sup>2</sup>	0.002	0.342	0.424	0.002	0.341	0.391
ΔR <sup>2</sup>	0.002	0.340***	0.082***	0.002	0.339***	0.05***
F	0.128	26.418***	31.983***	0.128	26.297***	27.845***

Note: N = 312, \* means p < 0.05, \*\* means p < 0.01, \*\*\* means p < 0.001.

**Table 6.** The moderating effect of self-construal between interpersonal interaction and impulse buying.

Variable	Impulse buying					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gender	0.011	0.049	0.057	0.011	0.052	0.056
Age	-0.034	-0.009	-0.029	-0.034	-0.025	-0.053
Education	0.015	-0.026	-0.017	0.015	0.002	0.001
Monthly disposable income	0.009	0.028	0.065	0.009	0.008	0.033
Interpersonal interaction		0.497***	0.529***		0.500***	0.464***
Interdependent self-construal		0.110*	0.099*			
Interpersonal interaction*Interdependent self-construal			0.359***			
Independent self-construal					0.053	0.047
Interpersonal interaction*Independent self-construal						-0.250***
R <sup>2</sup>	0.002	0.270	0.397	0.002	0.262	0.322
ΔR <sup>2</sup>	0.002	0.268***	0.127***	0.002	0.260***	0.060***
F	0.128	18.785***	28.534***	0.128	18.016***	20.618***

Note: N = 312, \* means  $p < 0.05$ , \*\* means  $p < 0.01$ , \*\*\* means  $p < 0.001$ .

In summary, the results show that the three dimensions of virtual brand community interaction have a significant positive impact on impulse buying. The interdependent self-construal plays a positive moderate role between the virtual brand community interaction and impulse buying, and the independent self-construal plays a negative moderate role between the virtual brand community interaction and impulse buying.

## 4. Conclusions

### 4.1. Research Conclusion

Based on the social identity theory, this study adopted the method of questionnaire survey to analyze 312 valid questionnaires, and explored the influence of virtual brand community interaction on impulse buying, as well as the moderating effect of self-construal.

Research shows that human-machine interaction, information interaction and interpersonal interaction in virtual brand community have significant positive effects on impulse buying. The development and popularization of the Internet provides a new marketing platform for enterprises, and also brings a new social media for people. While consumers participate in the virtual brand community and enjoy the experience of interpersonal communication and information exchange, their consumption behavior is constantly changing. The study found that human-machine interaction, information interaction and interpersonal in-

teraction have different influences on impulse buying, and information interaction has the biggest influence, mainly because people are more likely to convert information into their own value through communication and understanding, thus generating impulse buying. At present, there are a lot of researches on impulse buying in the theoretical circle, but the research from the perspective of virtual brand community, especially from the perspective of interaction between virtual brand community, is more limited. This study provides an important theoretical perspective for the follow-up study of the relationship between the two.

The self-construal plays a moderate role between the virtual brand community interaction and impulse buying. For consumers with different personality traits, the interaction of virtual brand community has a significant difference in the impact on impulse buying. The specific effects are as follows: the interdependent self-construal plays a positive moderate role between the virtual brand community interaction and impulse buying, and the independent self-construal plays a negative moderate role between the virtual brand community interaction and impulse buying. This conclusion is consistent with the cognitive behavioral theory. The interdependent self-construal pays more attention to the role of the group and the views of others, and pays more attention to the sense of belonging in the group and the communication among group members. Therefore, they are more likely to accept and recognize the information generated by the interaction of virtual brand community, and are more likely to produce impulse buying. Independent self-construal is more independent, self-concept oriented, and more inclined to their own inner thoughts. Therefore, they will selectively receive and recognize the information generated by virtual communities, which will weaken the influence of virtual brand community interaction on impulse buying.

## 4.2. Research Inspiration

Strengthen the management, operation and maintenance of virtual brand community. Managers of virtual brand communities can try to increase knowledge popularization, suggestion collection and display of consumers' interesting ideas and other modules to increase the richness and uniqueness of virtual brand communities. Through knowledge popularization, brands can be promoted more quickly and consumers can obtain information more conveniently. Through the collection of suggestions, businesses can better understand the different needs of consumers, so as to constantly upgrade their brands or products, and improve consumers' sense of ownership; through the display of consumers' taste and creativity, the value of merchants and consumers can be realized, so that consumers can truly participate in the community, and the sense of belonging of consumers can be improved, which is beneficial to the stable development of the virtual brand community.

Establish a good interactive mechanism, pay attention to guide and develop

consumer interaction. In social media environment, the consumer has changed, the role of the consumer is not only the recipient of information, the enterprise also is not only the publisher of information, enterprises want to improve their sales, should notice to human-computer interaction in virtual brand community, information interaction and interpersonal interaction, in particular, can improve the beautification of virtual brand community, improve the pleasure browsing community, and the reasonable design the official account of the module, create a good interactive atmosphere. Secondly, enterprises should actively create and disseminate useful information, encourage community members to post more posts and reply posts, and actively guide consumers to fully interact with each other to improve their participation.

The participants of different virtual brand communities are classified and managed to attack independent self-construal. Consumers with different personality traits have different cognition, choice and acceptance of information, resulting in different consumption behaviors. Enterprises should focus on implementing different marketing strategies. People with independent self-construal are rarely influenced by the outside world, so enterprises should add more effective marketing strategies for such consumers. In the process of publicity or interaction, the core competitiveness of the products should be emphasized more, rather than the language skills in the process of publicity and changing consumers' original consumption concepts, such as adding additional items or designing specific meanings to attract their attention, thus encouraging them to make impulse purchases.

### Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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