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The Impact of Online Community on Blind Box Repurchase Intention

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Abstract

The purpose of this research is to investigate consumers' blind box repurchase intentions under the influence of herd behavior, and the impact of online communities on this intention. The originality of this research is to address the gaps in research regarding online communities' influence on repurchase probability goods. The research analyzes the factors influencing consumers' willingness to repurchase blind boxes within online communities. Data were collected through an online survey questionnaire, and structural equation modeling (SEM) was used to examine the relationships between variables, including Information Community Interaction, Information Community Interaction, herd behavior, and repurchase intention. By understanding the purchasing preferences and consumption psychology of blind box consumers, the contribution of this study is to provide a theoretical basis for continuous purchasing decisions, help merchants create a healthy consumption environment, and guide consumers to buy rationally.

Keywords: Herd behavior, Community Interaction, Repurchase intention, Blind Box

Jel codes: C38, C81, C83, C87, D90.



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1. Introduction

The "blind box" is an opaque container that encloses the doll and is adorned with printed designs representing all possible styles that may be contained within. However, the specific style contained within the box remains unknown. Currently, the most popular blind box series among players in China include LABUBU, PUCKY, DIMOO, MOLLY, SKULLPANDA, and others. The notion of blind boxes originated in Japan, where they were distributed as lucky bags for promotional purposes. Blind boxes possess enigmatic characteristics that can captivate consumers' interest. The Blind Box has emerged as a popular toy fad and a novel means of social interaction among young consumers (Wu, 2021). According to data published by MobTech¹(2020), The blind box industry in China is projected to undergo a minimum of five additional years of rapid expansion until 2025. Moreover, the survey forecasts that the Chinese blind box business would surpass RMB 20 billion in size. As a new trendy toy, why do consumers repurchase blind boxes?

Pop Mart company created a community app where blind box enthusiasts of common interests can interact with one another through the online community to find interest groups and access new information. Blind boxes are not attractive enough to attract passengers to buy them. Therefore, for blind box players, their first try may be because of other people's behavior in buying blind boxes. Even some players reflected that they did not think that blind boxes were so special when they first appeared. However, as more and more players post and share this series of blind boxes on social media platforms, they find that blind boxes are getting better and better and want to have some of their own.

With this background, this research aims to investigate what role herd behavior plays in consumers' decisions in the context of the blind box community to repeat purchases. Understanding consumers' herd behavior is crucial for those who want to study consumer behaviors. By understanding these psychological influences, consumers' irrational shopping behaviors can be better understood, and companies can create more attractive and persuasive products.

This research combines factors related to consumers' identity and social attributes to help businesses better understand the buying preferences and consumption psychology of blind box consumers and build a healthy consumption environment to help consumers purchase and consume blind boxes rationally.

2. Literature review

2.1 Consumer's herd behavior

Herd is a common behavior observed in individuals, which occurs when their decisions are influenced by the phenomena of majority decision-making influence, as described by Asch in 1956. According to Lascu and Zinkhan (1997), herding refers to the phenomenon where customers are influenced by the evaluations, intentions, and buying behaviors of associated groups, leading them to alter their own product evaluations, intentions, and purchase behaviors.

2.2 Blind box

The increasing market penetration of the blind box industry can be attributed to its emergence as a social currency among young individuals. As stated by Berger (2014), things possess a utilitarian worth, an enhanced value to the consumer's psyche, and a conspicuous social value. Individuals seeking recognition and attention from others in their social contacts are susceptible to the egotism associated with social currency, which exploits their longing for admiration.

2.3 Blind box community

Liu (2011) categorizes the interaction inside the virtual brand community into two types: Information Community Interaction and Information Community Interaction, based on the object of interaction. Information Community Interaction mostly occurs when customers and the community engage in interactions, while Information Community Interaction refers to the interactions that arise among consumers because of interpersonal relationships.

¹ MobTech (2020, December 17).2020 Blind Box Economic Insight Report- MobTech. Retrieved from <https://www.mob.com/mobdata/report/120>.

3. Theoretical framework and hypotheses

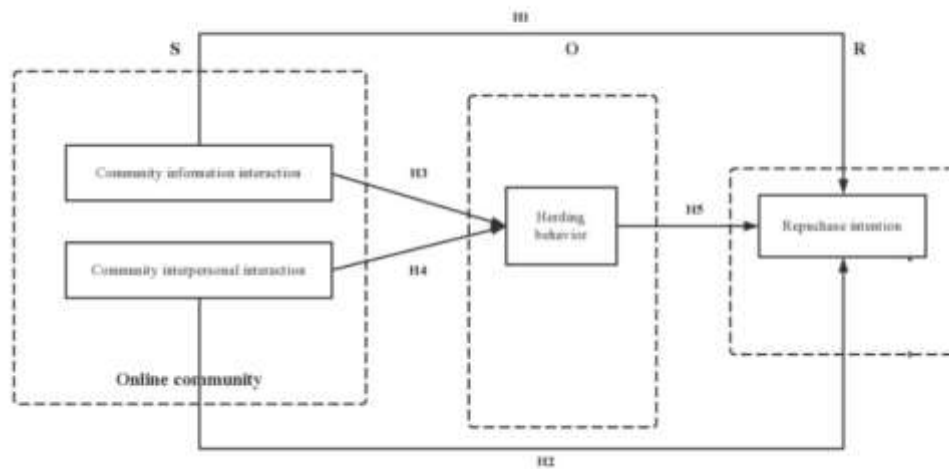


Figure 1. Framework

Source: Authors' Edition

First, online communities have a direct impact on the consumers' willingness to make repeated purchases. In contrast to the case where the choice outcome is determined, when consumers make a purchase decision of probabilistic products, the information presented through social platforms can be more influential on the consumers' perceptions of the product and the selection process (Borgida & Nisbitt, 1977). In the largest social platform in China, the interaction of Microblog content has the greatest impact on consumers' brand attitudes and behavioral elements among various elements of attitudes. Information Community Interactions have the weakest influence on behavioral aspects of consumers' attitudes toward the brand (Lu, 2011), which means that players in the online blind box community can enrich their understanding of blind boxes by interacting with information, such as tips or experience sharing during or after the purchase and the news exchange about the latest blind boxes. Through the Information Community Interaction of the online community, members can not only share their consumption experiences but also share emotions with other players in the community to gain recognition and respect from them to build good social relationships. Combined with the previous article, this research proposes the following hypotheses:

H1: Information interaction in online communities is significantly and positively correlated with the consumers' willingness to make repurchases.

H2: Interpersonal interaction in online communities is significantly and positively correlated with the consumers' willingness to make repurchases.

Second, Gefen (2003) showed that interactive activities among members in virtual communities allow them to get to know each other and build familiarity and mutual trust. This research argues that a specific sense of identity and group affiliation can be developed through high levels of interaction and attention between players. A sense of identity in the social group can effectively increase the spontaneous willingness of consumers to share. Acquiring a sense of belonging and identity in the community can also help consumers increase their sense of value (Liu, 2019). Combined with the previous article, this research proposes the following hypotheses:

H3: The information interaction of online communities has a positive effect on herd behavior.

H4: Interpersonal interaction in online communities has a positive effect on herd behavior.

Third, when self-esteem is threatened by social comparisons that are unfavorable to them, individuals may adjust their herd behavior to confront them with a positive self-concept, such as investing more in products or experiences that reinforce their social identity or enhance their self-worth. The consumers' willingness to make repurchases is influenced by the opinions and behaviors of others in their social networks (Granovetter, 1983). Thus, a strong psychological awareness leads to an emotional connection between players and the community, and community members have a high sense of identity and belongingness to the community, which can lead to a tendency for consumers to make blind box purchases. Combined with the previous article, this research proposes the following hypothesis:

H5: Herd behavior has a positive effect on repurchase intention.

4. Methodology

The procedures, steps, and methods required for specific measurement of variable concepts come from (Feng, 2001). To ensure the reliability and validity of the questionnaire, the items used to measure the variables were derived from established scales and adjusted to fit the specific criteria of this research. To understand the impact of community on consumers' willingness to repurchase, analyzed using statistical methods such as reliability, validity tests, structural equation modeling (SEM), factor analysis, frequency counting statistics, and so on. The statistical analysis software is SPSS 29.0 and AMOS 26.0.

The data collection using online questionnaires. The questionnaire was set up as a scale and finally formed into a formal research questionnaire, which was later distributed to the blind box fans base through the: Wenjuanxing (<https://www.wjx.cn>) internet platform. According to a survey by Frost & Sullivan, 95% of China's Trend Toys users are aged 15-40, and 63% have a bachelor's degree or higher. Therefore, the questionnaire research object distributed in this research is around 15-40 years old. These blind box fans completed the questionnaire anonymously and voluntarily.

This research consists of four research variables. The interaction in the online community can be divided into information interaction and interpersonal interaction (Liu, 2011). In this case, Interpersonal Community Interaction and Information Community Interaction are two latent variables. Herd behavior and repurchase intention as the other two latent variables. The scale adopts a 6-level Likert scale, which is "strongly disagree", "disagree", "slightly disagree", "slightly agree", and "agree". "Strongly agree" is assigned 1, 2, 3, 4, 5, and 6 points, respectively.

The first variable introduced is Interpersonal Community Interaction. The community generates interpersonal relationships of emotional interaction that can motivate community members to recognize and satisfy the emotional needs of that community. (Zhang, 1999). The assessment of interpersonal community interaction is based on the research conducted by Liu (2011), Fan (2007), Nambisan & Baron (2009), and Wang (2016).

Second, Information community interaction means that the conversations and activities of users within a community can be entered into the community database through information technology so that users can access the information they want at any time if they enter the community (Lin, 2002). Information interaction also relies on the work of Liu (2011), Fan (2007), Nambisan & Baron (2009), and Wang (2016).

Third, Herd behavior is the idea that an individual's consumer behavior receives influence from the group. Carr's (2021) and Sun's (2013) research serves as the primary foundation for measuring information interaction.

Fourth, Under the joint action of their factors and external factors (e.g., environmental effects and marketing activities, etc.), and after complex psychological activities, consumers will ultimately produce purchase decisions and purchase behavior (Chu, 2018). Repurchase intentions are influenced by the measurements conducted by Kim (2008).

Fifth, contains information related to the demographic characteristics of the respondents, i.e., personal information: 1-gender, 2-age, 3-occupation, and 4-monthly income level of the respondents.

Ultimately, I included a series of open-ended questions as the final component of the questionnaire. To ascertain the blind box communities that consumers are interested in, to assist companies in constructing blind box communities and involving consumers in those communities. Simultaneously discerning the blind box products that buyers are interested in.

5. Data and result analysis

5.1 Data analysis

A questionnaire was distributed online. In the official research, 426 questionnaires were circulated, 404 were valid, and the questionnaire's validity rate was 94.83%. Table 1 shows that 57.43% of community members that influence blind box purchases are male and 42.57% are female, which is more accurate. About 82% of the sample was 18-40 years old. 88% of the sample had a monthly income of more than 9,000 yuan, showing that middle and high-income consumers are more likely to repurchase the blind box. The fact that 41% of consumers are students shows that modern youth are increasingly drawn to fashion and trend culture. Additionally, 30% work in government and non-governmental organizations. The survey result matches the facts.

Table1. Descriptive statistics on demographic characteristics

Name	Options	Frequency	Percentage %	Cumulative Percentage (%)
Gender	Female	172	42.57	42.57
	Male	232	57.43	100.00
Monthly (n=369)	Under 3000	181	49.05	49.05
	Income 3000-6000	81	21.95	71.00
	6000-9000	65	17.62	88.62
	More than9000	42	11.38	100.00
Occupation	Professional	122	30.20	30.20
	Individual Business	23	5.69	35.89
	Student	168	41.58	77.48
	Freelancer	91	22.52	100.00
Age	18-24	195	48.27	48.27
	25-30	59	14.60	62.87
	31-40	79	19.55	82.43
	More than 40	71	17.57	100.00
Total		404	100.0	100.0

Source: Authors' Edition

5.2 Result analysis

Peterson (1994) claims that questionnaires with alpha coefficients above 0.70 are reliable. Table 2 shows that the Cronbach's alpha values of the subscales are 0.910, 0.886, 0.868, 0.927, and 0.923 for the total scale. The scales have strong internal consistency because all are above 0.8. Each model's observed variable's combination reliability (CR) and average variance extracted (AVE) should be greater than 0.6 and 0.5, respectively (Zhou, 2015).

Seven metrics (χ^2/df , GFI, RMSEA, AGFI, CFI, NFI, and TLI) will be utilized to evaluate the degree of fit of structural equation modeling in this research. (Wen&Hou, 2004). See Table 3. The SEM model's fit indices for this research ($\chi^2/df = 1.105$, GFI = 0.952, AGFI = 0.940, RMSEA = 0.016, CFI=0.996, NFI=0.960, TLI=0.995) meet reference standards and are well-fitted.

Table 2: Cronbach's Alpha, Construct Reliability and Average variable extract

Variable	Cronbach's Alpha	Construct (CR)	Reliability	Average variable extract (AVE)
Interpersonal Interaction (PI)	0.91	0.91		0.628
Information Community Interaction (II)	0.886	0.886		0.608
Herd Behavior (HB)	0.868	0.868		0.623
Repurchase Intention (RI)	0.927	0.927		0.643

Source: Author

Table 3: Fit indicators for the validation factor analysis

Index	χ^2/df	GFI	RMSEA	AGFI	CFI	NFI	TLI
Reference	<3	>0.8	<0.05	>0.8	>0.9	>0.9	>0.9
Statistics	1.105	0.952	0.016	0.940	0.996	0.960	0.995
Compliance	up to standard	up to standard	up to standard	up to standard	up to standard	up to standard	up to standard

Source: Author

To confirm the theoretical model proposed in the research design we used the SEM model to analyze the impact of community interaction on the willingness to repurchase blind boxes with the help of AMOS 26.0. The SEM model diagram is shown in Figure 2.

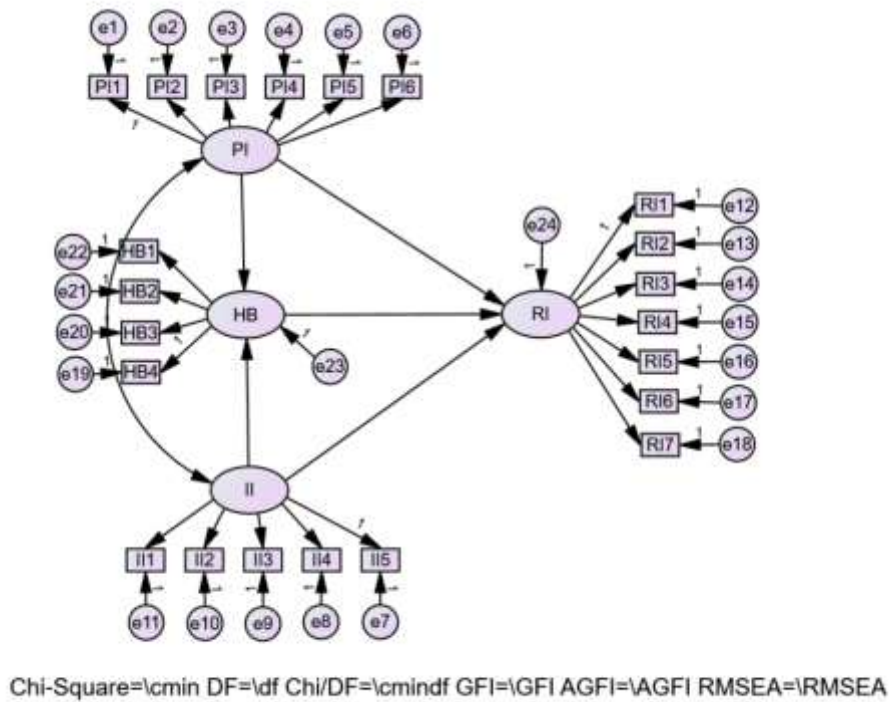


Figure 2: Initial structural equation model

Source: Author

The Figure 2 model path analysis was done with AMOS26.0. A great likelihood estimate was employed for this investigation. The relevant path coefficients are in Table 4. Table 4 shows that all regression coefficients have a critical ratio (C.R.) larger than 1.96, indicating that they are significantly different from zero (Wu, 2010)

Table 4: Path Coefficients and Test Values

Hypothesis	Estimate	St. Estimate	S.E.	C.R.	P	Result
H2 Interpersonal Community Interaction → Herd Behavior	0.262	0.263	0.063	4.183	***	Support
H1 Information Community Interaction → Herd Behavior	0.304	0.295	0.066	4.590	***	Support
H5 Herd Behavior → Repurchase Intention	0.215	0.206	0.061	3.526	***	Support
H4 Interpersonal Community Interaction → Repurchase Intention	0.255	0.246	0.063	4.010	***	Support
H3 Information Community Interaction → Repurchase Intention	0.211	0.196	0.067	3.141	.002	Support

Note: Factor loadings have been standardized, ***, p<0.001

Source: Author

The standardized path coefficient of Interpersonal Community Interaction is 0.263, which is significant ($P < 0.01$), indicating that Interpersonal Community Interaction has a significant positive impact on herd behavior. A similar pattern was also found for H1 (0.295). Therefore, the H1, and H2 hypotheses proposed in this research have been validated. The standardized path coefficient of herd behavior on repurchase intention is 0.206, showing a substantial positive impact ($P < 0.01$). Therefore, this research's H5 hypothesis is supported. The strong beneficial influence of Interpersonal Community Interaction on repurchase intention is seen by the standardized path coefficient of 0.246 ($P < 0.01$). H3 (0.196) followed a similar pattern. Therefore, this research's H3 and H4 hypotheses are supported.

6. Key findings and implications

6.1 Key findings

Through the research in this paper, it can be found that:

First, Consumers who buy blind boxes are young, and when investigating their occupations, they mainly focus on the student, government sector as well as freelance work. This is likely because this segment of customers is well-educated, open to new ideas, and engaged in popular culture. Due to the quick development of the Internet, people are used to searching for information online and are happy to give their own experience, buying tips, and experience. They will also help others choose and buy blind boxes and engage in community activities.

Second, Consumers' monthly income levels are mainly concentrated among middle-income earners. Middle-income consumers pay more attention to the blind box and community because they include students and government workers who shop online to save time but can find what they want quickly. They want to use less time and money to receive better products and services and participate in community activities to get merchant discounts.

Furthermore, the involvement of blind box community members in both informational and interpersonal exchanges enhances the phenomenon known as the herd effect. This effect posits that the frequency of interactions among community members directly correlates with the intensity of their collective behavior. Informational and interpersonal interactions facilitate community members' comprehension of blind box information, foster positive interpersonal connections during the exchange of purchasing experiences and advice, establish community standing, and fulfill the psychological desire for self-importance through active sharing and engagement in blind box discussions. Community members will autonomously opt to own identical blind boxes as "core members" and utilize shared topics to foster connections.

From the analysis of the above findings, the information community interaction and interpersonal community interaction work on consumers' repurchase intention through herd behavior. The sense of identity and satisfaction brought by the herd behavior will push consumers to have positive emotions toward purchasing blind boxes.

6.2 Implications

Marketers can design engagement marketing tactics by understanding how community affects blind box repeat purchases. By creating an active community and encouraging people to submit useful knowledge. Companies may boost customer satisfaction, stickiness, and repurchase by solving customer issues.

Consumer trust and belonging can be built through community involvement. Community discussions and shared experiences can boost Blind Box brand trust and repurchases.

Enthusiasts of blind box products can develop emotional attachments. The sense of camaraderie and belonging can enhance emotional affinity towards the blind box and the community, hence elevating the likelihood of repeat purchases. The frequent sharing of blind box experiences by members or core members has an impact on the repurchase intentions of other members.

7. Conclusion

To understand the effect community interaction would have on consumers' repeat purchase of blind boxes, this study constructed a research model based on the Stimulus-Organism-Response Model (SOR), identity theory, and herd behavior theory. The data were collected by sending self-administered questionnaires, and the data were empirically analyzed using structural equation modeling (SEM), ANOVA test, and other statistical methods. According to the results obtained from the analysis, it is demonstrated that interactive behaviors in the community have an impact on consumer repurchase intentions and that repurchases are influenced by herd behaviors.

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