

The Influence of User Interaction on User Purchasing Behavior of Social E-Commerce Platform-A Case Study of Little Red Book

Xiaohuan Yan¹ and Dr. Tippawan Lertatthakornkit²

¹MBA. Candidate, Faculty of Management, Shinawatra University

²Lecturer, Faculty of Management, Shinawatra University

Corresponding Author: email: yanxiaohuan1232021@163.com

Received 12 February, 2024

Revised 11 June, 2024

Accepted 29 June, 2024

Abstract

With the rapid development of Internet shopping today, various social e-commerce platforms have emerged endlessly, which have changed people's consumption habits. Taking Little Red Book platform as an example, this study aims to explore the influence of user interaction under social e-commerce platform on user purchasing behavior. This paper adopted empirical research, literature review and purposeful investigation methods, and collected 431 usable questionnaires through questionnaire survey to analyze the influence of user-generated content, social interaction and product interaction on user purchasing behavior in social e-commerce platform. According to the quantitative analysis results, high-quality user-generated content, frequent social interaction and positive product interaction will have a significant positive impact on user purchasing behavior in social e-commerce platforms. Therefore, the social e-commerce platform should pay attention to these survey conclusions, improve the marketing strategy and development direction of Little Red Book platform, so as to promote the completion of user purchase behavior and better promote the development of social e-commerce platform.

Keywords: Social E-commerce Platform, Little Red Book, User Interaction, User Purchase Behavior

Introduction

Since the 21st century, e-commerce has attracted wide attention and reform around the world. The rapid development of Internet technology has completely changed the way people shop, business model and social interaction. With the rapid development of global Internet technology, China's e-commerce industry is showing a vigorous and upward trend, and has attracted international attention with its rapid growth. As of June 2023, the number

of online shopping users in China has reached 884 million, an increase of 38.8 million compared with December 2022, accounting for 82.0% of the total Internet users. Online shopping in China has gradually become an important form of business in the digital economy. At present, China's social e-commerce platforms are classified into split-buying social e-commerce, membership-based social e-commerce, community group buying and content-based social e-commerce. Among them, social and content applications are favored by the young generation of consumers and occupy most of their leisure time. Social and content applications connect consumers through content, influence the value decision-making system, and further guide consumers to shop.

Little Red Book is the leader of the content social e-commerce platform. It presents the characteristics of socialization and pays more attention to user interaction. One is user-generated content (UGC), the other is social interaction, and the third is the product interaction between customers to enhance user stickiness and loyalty, while using the data of online interaction to improve the platform's commodity structure and marketing strategy. Therefore, this paper chooses Little Red Book platform as the carrier platform to study user interaction and user purchasing behavior.

Based on the literature research conclusions of previous researchers, it can be clearly seen that there is a close relationship between user interaction and user purchase behavior. Through in-depth research on the influence of three factors of user interaction on user purchase behavior of social e-commerce platform, we can better understand the operation mode and user behavior mode of social e-commerce platform, improve the competitiveness of the platform and meet user needs. And promote the further development of e-commerce.

To this end, the following research questions are put forward:

1. What impact does user-generated content on social e-commerce platforms have on users' purchasing behavior?
2. What impact does the social interaction between users have on users' purchasing behavior? Social interaction on social e-commerce platforms is based on user-generated content, including interaction between users, likes, comments and sharing, etc. Based on user-generated content, explore how the frequency of social interaction will affect the purchasing behavior.
3. How do users' product interaction behaviors on social e-commerce platforms affect users' purchase behaviors?

Research Objectives

This research program uses empirical research to collect and analyze data in order to achieve the following specific objectives:

- (1) To analyze the impact of user generated content on user purchasing behavior, whether the quality of user generated content has a positive impact on user purchasing behavior and whether it has a guiding effect on user purchasing decisions.
- (2) To study social interactions on social e-commerce platforms, including likes,

comments, sharing, etc., to determine whether they are positively correlated with users' purchasing behaviors, and to assess the extent of this correlation.

(3) Explore whether product interactions can promote users to complete shopping behaviors, and whether they have a positive impact on users' shopping behaviors.

Literature Review

This paper summarizes the relevant research and theory, summarizes the research gaps, and puts forward the research hypothesis, forming the conceptual framework. Relevant studies and theories are summarized, research gaps are summarized, and research hypotheses are formulated to develop a conceptual framework.

Social E-commerce Platform

Regarding the research of social e-commerce platform, many scholars at home and abroad have defined it.

Foreign scholars (Efraim Turban, Narasimha Bolloju, Ting-Peng Liang, 2011) believe that social commerce refers to the e-commerce activities carried out on social networks through the use of social software tools, which can be regarded as a subset of e-commerce. It involves the use of social media to complete online shopping and sell products and services.

In the view of (Liu, L., Cheung, C. M., & Lee, M. K., 2016), social e-commerce websites provide social interactions such as information sharing, networking, and collaboration to facilitate communication among consumers.

Domestic scholars (Zong Ganjin, 2013) define social e-commerce as a business model that relies on interpersonal relationship and information interaction to improve commodity sales in the context of social media.

Gao Sui (2015) defined social e-commerce in a more specific way, pointing out that it evolved from traditional e-commerce. Social connections are established with users through various social networking sites and various forms of network media, and the information created and published by users can stimulate consumers to make purchase decisions.

Zhu Xiaodong and Chen Jie (2016) supplemented the previous definition in this paper, and proposed that social e-commerce is a new e-commerce model that mainly uses social media technology to promote users to build virtual interpersonal relationships existing on the Internet, while ensuring the smooth path of business information flow, and assisting commodity marketing and purchasing behaviors through social interaction and user-generated content.

Little Red Book Platform

Pang Jingchuan (2018) founded, Little Red Book takes "shopping notes" as a starting point to help users solve the three pain points of difficult choice, difficult guarantee and difficult purchase, and gradually forms a unique global shopping community. Later, it joins the e-commerce sector and transforms into a social e-commerce platform.

User Interaction

Sedley (2008) describes user interaction as a tool for creating, building, and strengthening relationships between users. It is the behavior that users communicate with each other and influence each other because they are in the same service environment during product consumption (Groenroos C, and Helle P, 2010).

Zhou Junjie (2015) In the study of user stickiness in virtual communities, user interaction is defined as the process in which different users interact with each other through various activities such as communication, contact, exchange and interaction. User interaction in online brand community refers to interpersonal interaction and product information transfer behavior based on online brand community platform.

In the academic World, Scopus and World of Science, two of the most important academic databases for social sciences and humanities, have the first article mentioning user-generated content or UGC dating back to 2001. Rhine Figall (2001) and Crawford (2001) respectively, both published in the same issue of content (Marcelo Luis Barbosa dos Santos, 2022).

The most influential definition, proposed by the Organization for Economic Cooperation and Development (OECD) in 2007, states that user generated content contains three main characteristics: 1. Delivery vector: User-generated content is published on the web; 2. Originality: User-generated content is original; 3. Created by amateurs: User generated content is created by non-professional and non-professional amateurs, and is usually voluntary.

Marcelo Luis Barbosa dos Santos (2022) After combing through nearly 20 years of definitions of UGC in different disciplines, a definition of UGC is derived after deconstruction: "User-generated content is any type of text, data, or behavior performed by users of online digital systems. Published and disseminated by the same user through independent channels, individually or in combination with other contributions from the same or other sources to produce an expressive or communicative effect ".

H1: The quality of user-generated content on social e-commerce platforms has a positive correlation with user purchase behavior.

Social Interaction

Godes, d., et al. (2005) and other scholars after study social interaction can be broadly defined as individuals involved in the influence of other products or services for consumers in evaluating any actions or decisions.

Scholars (Armstrong A, & Hagel Iii J, 1996) and (Keenan A, & Shiri A, 2009) believe that users can interact with other users, share experience and exchange emotions through functions such as "like", "follow" and "send messages to each other" provided by social business platforms. And then maintain a good interpersonal relationship. Therefore, when the frequency of social interaction is high, users will visit the platform more often and engage more deeply.

WANG Y, YU C. (2017) divides social interaction into two dimensions: online

word-of-mouth and observational learning, and believes that social interaction will affect consumers' purchase behavior and post-purchase behavior through purchase intention.

H2: The frequency of social interaction on social e-commerce platforms has a positive correlation with users' purchase behavior.

Product interaction

Wang Yonggui and Ma Shuang (2013) believes that in virtual brand community, product interaction refers to the interactions conducted by customers with products, brands and related knowledge as the main topics.

Shen Guanglong, Peng Xiaodong, and Qin Pengfei (2016) believes that customer interaction refers to the process of resource cooperation and exchange between two or more customers using the same brand, including product interaction (interaction based on product and service information) and interpersonal interaction (interaction to meet emotional needs).

H3: The positive product interaction on the social e-commerce platform has a positive correlation effect on the user's purchasing behavior.

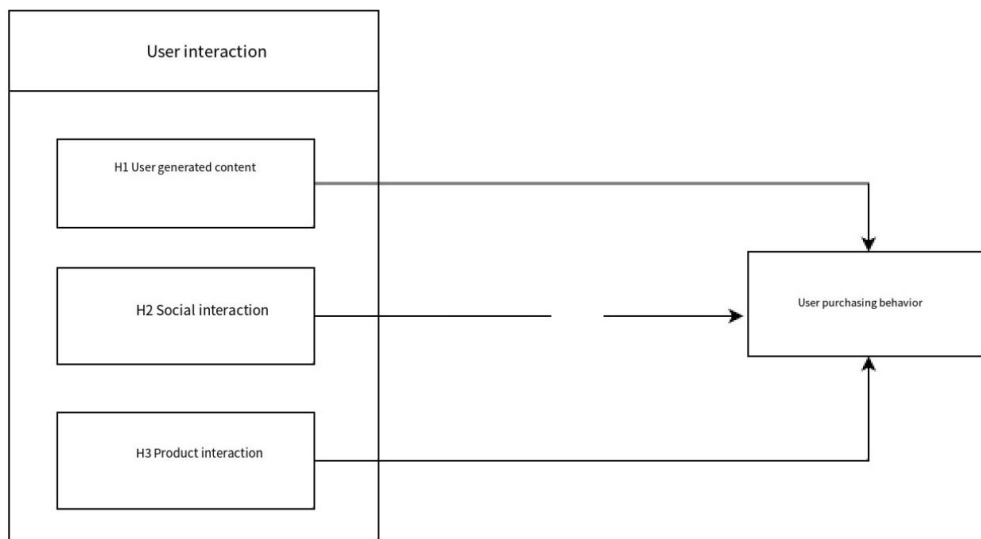


Figure1.1 Conceptual Framework

Research Methodology

Quantitative analysis is used in this study.

Quantitative method

1. Questionnaire

The questionnaire consists of three parts. The first part is to collect basic personal information such as gender, age, education, occupation and monthly income of the respondents. The second part is the user behavior of Little Red Book, which is used for

descriptive statistics and follow-up analysis of relevant conclusions. The third part consists of 4 scales, 4 variables, 5 dimensions and 32 items. According to Likert's five-level scale form, it includes five options: strongly disagree, disagree, uncertain, agree and strongly agree. Kim's (2012) scale was used for user-generated content, Busalim's (2021) scale was used for social interaction, O 'Cass's (2000) scale was used for product interaction, and Bai's (2015) scale was used for user purchasing behavior.

Cronbach's Alpha reliability test was performed on the questionnaire, and KMO and Bartlett ball test were used to test the validity analysis. Cronbach's Alpha value of all scales in the questionnaire was greater than 0.7 (Hair et al., 2010), indicating that the data was highly reliable and could be used for further analysis. The KMO value was 0.983, and the p value in the Bartlett sphericity test was less than 0.001, forming a formal scale with good validity and high reliability.

2. Sampling and Data Collection

Purposive sampling method is adopted for the questionnaire survey. The questionnaire is distributed to consumers who have shopping experience on Little Red Book platform. The statistical formula $n = Z^2 \sigma^2 / d^2$ was used to determine the sample size,² where n is the sample size, Z is the critical value of the standard normal distribution, σ is the standard deviation of the population (indicating the degree of dispersion of the population), and d is the permissible error (indicating the maximum difference between the willing sample and the real value of the population). Take the 95% confidence interval (Z is 1.96), accept 5% sampling error, and calculate according to the formula: $n=386$. Therefore, 450 questionnaires were finally recovered in this study, among which 431 were available, and the final availability rate was 95.78%.

Results

Descriptive analysis, regression analysis and correlation analysis were performed on the data.

1. Description of demographic characteristics of the sample

Among the 431 respondents available, 38.05% were male and 61.95% were female, with higher participation of women; In terms of age distribution, the distribution of all age groups is fairly balanced, but the 21-30 years old account for 30.63%, indicating that the users of Little Red Book are mainly young people; From the perspective of occupational distribution, students accounted for 26.91%, civil servants/employees of public institutions accounted for 17.17%, employees of private enterprises accounted for 19.26%, freelancers accounted for 19.03%, and others accounted for 17.63%. Students, private enterprise employees and freelancers accounted for a large proportion; Among the monthly income distribution, 36.43 percent had a monthly income of less than 5,000-yuan, accounting for the highest proportion.

2. Description of Little Red Book users' usage behavior

The frequency of customers using Little Red Book accounts for the most for several times a day and several times a month, that is, 127 and 130 people in the sample think that they use Little Red Book every day and several times a month, respectively. It can be seen

that the overall frequency of users using Little Red Book is relatively high.

The most important reasons for customers to shop in Little Red Book are pushed by bloggers or friends, that is, there are 170 people in the sample. The most important reasons for customers to shop in Little Red Book are pushed by bloggers or friends. The second is the occasional see, impulse order. It can be seen that most of the main reasons for users to shop in Little Red Book are pushed by bloggers or friends and impulse orders, and the platform can effectively grasp the main reasons for users to place orders according to this information.

Customers believe that Little Red Book has the greatest advantage over other social media platforms, and the trusted recommendation of products and services accounts for the largest proportion. That is, 186 people in the sample believe that the biggest advantage of Little Red Book compared with other social media platforms is the trusted recommendation of products and services. The platform can continue to maintain the quality of its products and services according to this information, and continue to improve in other aspects. In order to meet customer requirements.

3.Descriptive analysis of each factor

By comparing the mean scores of each dimension, it can be seen that the dimension with the highest mean score is social existence, the dimension with a relatively low mean score is user purchasing behavior, the dimension with the largest standard deviation is user purchasing behavior, and the dimension with the smallest standard deviation is UGC quality, indicating that the survey subjects have a unified evaluation of UGC quality in the shopping section of Little Red Book Platform.

Name	Minimum value	Maximum	Mean	Standard Deviation
UGC quality	1.000	5.000	3.733	1.121
Social presence	1.000	5.000	3.734	1.190
Interactivity	1.000	5.000	3.697	1.203
Product interaction	1.000	5.000	3.699	1.196
User purchasing behavior	1.000	5.000	3.671	1.221

3. Correlation analysis

Correlation analysis was used to study the correlation between user purchasing behavior and UGC quality, social presence, interaction, social interaction and product interaction, and Pearson correlation coefficient was used to express the strength of the correlation.

Factors	Coefficient	User buying behavior
---------	-------------	----------------------

Factors	Coefficient	User buying behavior
UGC quality	Correlation coefficient	0.876 * *
	<i>p</i> value	0.000
	Sample size	431
Social interaction: Social presence	Correlation coefficient	0.835 * *
	<i>p</i> value	0.000
	Sample size	431
Social interaction: Interactivity	Correlation coefficient	0.833 * *
	<i>p</i> value	0.000
	Sample size	431
Social interaction	Correlation coefficient	0.860 * *
	<i>p</i> value	0.000
	Sample size	431
Product interaction	Correlation coefficient	0.827 * *
	<i>p</i> value	0.000
	Sample size	431

* $p < 0.05$ ** $p < 0.01$

Through correlation analysis, UGC quality, social interaction and product interaction showed significant positive correlation.

5. Regression analysis

Based on the theoretical model, user interaction: UGC quality, social interaction and product interaction are taken as independent variables, while user purchase behavior is taken as dependent variable for linear regression analysis. As can be seen from the following table, the R-square value of the model is 0.812, which means that UGC quality, social interaction and product interaction can explain 81.2% of the changes in user purchase behavior. The discussion validates the previous hypothesis that UGC quality, social interaction and product interaction under user interaction all have significant positive effects on user purchasing behavior.

	Regression coefficient	95% CI	Collinear diagnosis	
			VIF	Tolerance
Constant	0.061 (0.667)	-0.238 ~ 0.117	-	-
UGC quality	* * (9.936 0.503)	0.404 ~ 0.602	4.896	0.204
Social interaction	* * (6.889 0.349	0.249 ~ 0.448	5.244	0.191

	Regression coefficient	95% CI	Collinear diagnosis	
			VIF	Tolerance
Product interaction	** (3.261 0.151)	0.060 ~ 0.242	4.671	0.214
Sample size		431		
R^2		0.812		
Adjust R		0.810		
F number \square		F (3,427)=613.343, p=0.000		

Dependent variable: users' purchase behavior is evenly divided

D-W value: 1.512

* $p < 0.05$ ** $p < 0.01$ Inside parentheses is the t value

Discussion

The results of this study are helpful to solve research problems and achieve research objectives.

Discussion on Quantitative Findings

1. H1 is supported that user-generated content has a significant positive impact on user purchase behavior.

In the study on UGC quality, the regression coefficient is 0.503, the T-value is 9.936, and the P-value is 0.000, which is lower than the significance level of 0.01. This means that UGC quality plays a key role in user purchasing behavior. Previous studies have also verified the importance of UGC in the e-commerce field. According to Hazari et al. (2017), high-quality UGC not only increases purchase intention, but also increases user trust in products and brands.

So, objective 1 was fulfilled.

2. H2 supports that social interaction has a significant positive impact on user purchase behavior.

The regression coefficient of social interaction is 0.349, the T-value is 6.889, and the P-value is 0.000, which is also significant. This is consistent with previous research results, demonstrating the positive impact of social interaction in shaping user purchase behavior. Previous studies have found that social interaction among users not only deepens their cognition of products, but also enhances the emotional experience of shopping (Huang E, 2012).

So, objective 2 was fulfilled.

3. H3 is supported that product interaction has a significant positive impact on user purchase behavior.

The regression coefficient of product interaction was 0.151, the T-value was 3.261, and the P-value was 0.001, which also reached the significant level. This finding is consistent with previous studies, indicating that product interaction has a substantial role in promoting users' purchase decisions. Previous studies have pointed out that providing rich product information and interactive functions can help reduce users' information

uncertainty and thus increase their confidence in purchasing (Bai Y., 2015).

So, objective 3 was fulfilled.

To sum up, the quantitative research results through regression analysis not only provide guidance for the social e-commerce platform, but also confirm each other with previous studies, further strengthening the understanding of UGC quality, social interaction and product interaction in promoting users' purchase behavior (Malthouse E C, 2016). These conclusions have important implications for enterprises and marketing strategies, highlighting the key role of positive user interaction on social e-commerce platforms, which can promote the completion of user purchase behavior, and have a certain impact on improving the marketing strategy and development direction of Little Red Book platform.

Conclusion

Summary of Findings

Starting from the user interaction on the social e-commerce platform, this paper selects Little Red Book platform as the research object, analyzes the influence of its various dimensions on user purchasing behavior, and draws the main conclusions as follows.

First, UGC quality is positively correlated with user purchasing behavior. This conclusion suggests that there is a positive correlation between the quality of user-generated content (UGC) and the purchase behavior of users. This means that high quality UGC can increase the probability that a user will purchase a product or service. High quality UGC is usually more credible because it provides truthful and useful information about the product or service. Users are more likely to trust other users' suggestions and reviews, especially if those reviews are detailed, objective, and useful. At the same time, UGC can also provide social proof, that is, evidence of other users' purchase or use of the product. This can encourage others to follow along and buy the same product or service.

Second, the frequency of social interaction is positively correlated with user purchase behavior. This conclusion suggests that users are more likely to purchase products or services when they engage in more frequent interactions on social media or online social platforms. This phenomenon can be explained by brand exposure and awareness: frequent interactions on social media can increase brand exposure and visibility. Users may be more likely to identify and trust a brand after multiple interactions with that brand, and thus be more likely to purchase its products or services. At the same time, social interaction can increase the influence of users within their social circle, and if users actively participate in the interaction, they may influence the purchasing decisions of their friends and followers, as their suggestions and opinions have greater authority.

Third, positive product interaction is positively correlated with users' purchase behavior. This conclusion emphasizes the positive correlation between positive product interaction and user purchase behavior. Positive product interactions, such as trials, demos, online presentations, and interactive content, can help users better understand a product or

service. This understanding can remove uncertainty for users and increase their confidence in purchasing. And positive product interaction can provide interesting and pleasant user experience, which may stimulate users' interest in buying. Users may be more willing to buy products that they have actively experienced in the interaction.

These results suggest that user interaction has a positive impact on purchasing behavior. Social interaction, UGC quality, and positive product interaction are all important factors that promote user purchase. These findings make a lot of sense for businesses and marketing strategies as they highlight the importance of positive interactions on social media and online platforms.

Recommendation and Future Research

The development of social e-commerce platform is gradually transforming into a social retail platform, and user interaction is becoming more and more important to the platform, and people have higher and higher requirements on the platform. In order to better promote the interaction between the platform and users and achieve a closed loop between user interaction and user purchase behavior, according to the empirical conclusions above, Consider the following three dimensions for the further improvement of social e-commerce platforms such as Little Red Book to put forward corresponding suggestions.

1. Improve the quality of content produced by users. The platform establishes relevant guidelines to prioritize UGC quality, rewards high-quality UGC, establishes auditing standards to ensure the authenticity and compliance of user-generated content, and enhances user trust in user-generated content.

2. Increase the frequency of social interactions. Platforms establish compelling content release plans that are relevant to users' interests, carry out engaging interactive activities, create regular interaction schedules, and encourage users to visit and engage in social interactions on a regular basis.

3. Optimize product interaction experiences. Enterprises should enhance the interaction with users in the product interface of the platform, establish a multi-channel user feedback mechanism, add multiple interaction options, but at the same time simplify the interaction process and reduce friction in the purchase process.

Due to the limitation of research time and objective reasons, there are still some shortcomings in this study. In the future research, we will continue to expand and deeply explore the relationship between user interaction and user purchase behavior in social e-commerce platforms, try to explore the differences of various types of social e-commerce platforms and pay attention to the overall development trend of social e-commerce platforms, so as to promote the sustainable development of social e-commerce.

References

Armstrong, A., & Hagel, J. (1996). The real value of online communities. *In Knowledge and communities* (pp. 85-95). Routledge.

- Bai, Y., Yao, Z., & Dou, Y. F. (2015). Effect of social commerce factors on user purchase behavior: An empirical investigation from renren. com. *International Journal of Information Management*, 35(5), 538-550.
- Busalim, A. H., & Ghabban, F. (2021). Customer engagement behaviour on social commerce platforms: An empirical study. *Technology in Society*, 64, 101437.
- Gao, S. (2015). *Quantifying customer value in new product diffusion in the context of socialized-commerce* (Doctoral dissertation) Guangdong University of Technology, Place: Guangzhou.
- Godes, D., Mayzlin, D., Chen, Y., Das, S., Dellarocas, C., Pfeiffer, B., ... & Verlegh, P. (2005). The firm's management of social interactions. *Marketing letters*, 16, 415-428.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2010). *Multivariate Data Analysis*. Upper Saddle River, NJ: Pearson Education.
- Hazari, S., Bergiel, B. J., & Sethna, B. N. (2017). Hedonic and utilitarian use of user-generated content on online shopping websites. *Journal of Marketing Communications*, 23(6), 572-591.
- Huang, E. (2012). Online experiences and virtual goods purchase intention. *Internet Research*, 22(3), 252-274.
- Keenan, A., & Shiri, A. (2009). Sociability and social interaction on social networking websites. *Library review*, 58(6), 438-450.
- Kim, C., Jin, M. H., Kim, J., & Shin, N. (2012). User perception of the quality, value, and utility of user-generated content. *Journal of Electronic Commerce Research*, 13(4), 305.
- Liang, T. P., & Turban, E. (2011). Introduction to the special issue social commerce: a research framework for social commerce. *International Journal of electronic commerce*, 16(2), 5-14.
- Liu, L., Cheung, C. M., & Lee, M. K. (2016). An empirical investigation of information sharing behavior on social commerce sites. *International Journal of Information Management*, 36(5), 686-699.
- Malthouse, E. C., Calder, B. J., Kim, S. J., & Vandenbosch, M. (2016). Evidence that user-generated content that produces engagement increases purchase behaviours. *Journal of Marketing Management*, 32(5-6), 427-444.
- O'Cass, A. (2000). An assessment of consumers product, purchase decision, advertising and consumption involvement in fashion clothing. *Journal of economic psychology*, 21(5), 545-576.
- Pang, J. (2018). *The influence of social sharing on consumer purchasing decisions: A case study of "Little Red Book"* (Master's thesis) Minzu University of China, Place: BeiJing.
- Santos, M. L. B. D. (2022). The “so-called” UGC: an updated definition of user-generated content in the age of social media. *Online Information Review*, 46(1), 95-113.

- Sedley, R., & Perks, M. (2008). Six theses on digital customer engagement in a troubled economy.
- Shen, G. L., Peng, X. D., & Qin, P. F. (2016). The impact of customer-to-customer interaction in virtual brand communities on customer participatory value co-creation: The mediating role of experiential value. *Journal of Management*, 13(12), 1808.
- Wang, Y. G., & Ma, S. (2013). Empirical study on driving factors of customer interaction in virtual brand communities and their impact on customer satisfaction. *Management Review*, 10(9), 1375-1383.
- Wang, Y., & Yu, C. (2017). Social interaction-based consumer decision-making model in social commerce: The role of word of mouth and observational learning. *International Journal of Information Management*, 37(3), 179-189.
- Zhou, J. J. (2015). User stickiness under the context of socialized commerce: The indirect impact of user interaction and its moderating effect. *Management Review*, 27(7), 127-136.
- Zong, Q. J. (2013). A review of research on socialized e-commerce abroad. *Journal of Intelligence*, 32(10), 117-121.
- Zhu, X., & Chen, J. (2016). Overview of social e-commerce research in China. *Journal of Modern Information*, 36(1), 172-177.