

## **FACTORS INFLUENCING THE CUSTOMER SATISFACTION IN C2C E-COMMERCE**

**Yingnan Zhai <sup>1\*</sup>**

<sup>1</sup> Graduate School, Siam University of Thailand

\* Corresponding Author, E-mail: 1023152663@qq.com

**Abstract:** E-commerce is highly recognized by merchants because it can greatly reduce operating costs. However, due to the special and virtual nature of the internet environment, as a new business operation model, e-commerce exhibits some transaction characteristics that traditional physical economic models do not possess. There are still many inefficiencies in the transformation and operation of business models, which may prevent customers from obtaining the traditional satisfactory consumption experience in e-commerce transactions, leading to customer loss and low evaluations of e-commerce.

The purposes of this study are: 1) To explore the key factors affecting customer satisfaction in C2C e-commerce, and 2) To verify that network security, product value, service quality, and corporate image value positively impact customer satisfaction in C2C e-commerce. This paper selects Taobao in China as case study, using quantitative research methods. The reliability and validity of the questionnaire are analyzed to verify its reliability and rationality. The sample size is 300.

The research results show that: 1) customer satisfaction in C2C e-commerce is influenced by network security, product value, service quality, and corporate image value; 2) Four factors, network security, product value and service quality, and corporate image value, have a significant positive impact on customer satisfaction in C2C e-commerce.

Research on customer satisfaction allows companies to better understand and meet customer needs. By promptly offering products or services that customers need, companies can maintain an invincible position in market competition.

**Keywords:** C2C E-Commerce, Customer Satisfaction, Influencing Factors

### **Introduction**

With the rapid development of computer technology, network technology, and communication technology, have entered an era of internet information sharing. The competition in the physical retail industry has become so intense that it is almost unbearable. Consequently, some visionary retail entrepreneurs have identified the e-commerce market, giving rise to this new shopping

method—online shopping (Deng, Tao & Ma, 2014).

Compared to traditional shopping methods, online shopping, as a mode of e-commerce, has many advantages and benefits. These include reducing shopping costs, offering a wide variety of products online, providing the latest and most fashionable products and services, making it easier to collect product information, enabling 24-hour shopping, saving time, and allowing cross-regional and cross-border shopping (Hua, 2010).

In view of the above analysis, this paper empirically analyzes the factors influencing customer satisfaction in online shopping from the perspective of customer satisfaction. The aim is to identify the factors affecting customer satisfaction in online shopping and to provide guidance for the development of e-commerce (Deng, Tao & Ma, 2014).

### **Research Objectives**

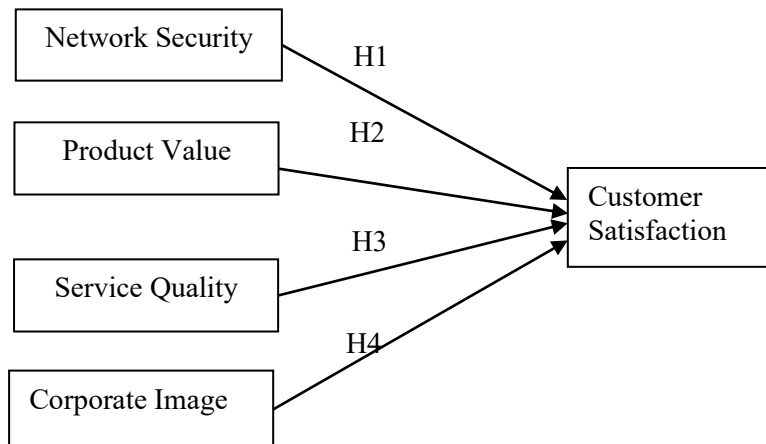
To achieve greater competitive advantage and profit share in the fiercely competitive market of C2C e-commerce platforms, enterprises must adjust their service strategies with the goal of "customer satisfaction in all aspects." This strategic adjustment allows businesses to gain superior service advantages in competitive markets, thereby promoting the industry towards better and healthier development. Specific research objectives are as follows:

1. To analyze the factors influencing customer satisfaction in C2C e-commerce.
2. To verify whether network security, product value, service quality, and corporate image value have a positive impact on customer satisfaction in C2C e-commerce.

### **Research Hypotheses**

To analyze the factors influencing customer satisfaction, this study constructs a model with network security, product value, service quality, and corporate image as independent variables. Customer satisfaction is the dependent variable. The factors influencing customer satisfaction on C2C e-commerce platforms are jointly influenced by network security, product value, service quality, and corporate image value in educational payment networks. See Figure 1 for a visual representation.

- H1: Network security of C2C e-commerce platforms has a positive impact on customer satisfaction.
- H2: Product value of C2C e-commerce platforms has a positive impact on customer satisfaction.
- H3: Service quality of C2C e-commerce platforms has a positive impact on customer satisfaction.
- H4: Corporate image of C2C e-commerce platforms has a positive impact on customer satisfaction.



**Picture 1: Hypotheses**

### Literature Review

This chapter's literature review begins with an introduction to the definitions of C2C e-commerce and online shopping. The study draws upon theories such as user-centered design theory, information systems success theory, and user satisfaction theory as the theoretical foundation. Here are some of the key concepts and theories covered:

#### *C2C e-commerce*

C2C, short for Customer to Consumer, refers to an e-commerce model where consumers directly buy and sell goods and services to each other through online platforms (Zhong, 2016). This transactional approach typically excludes traditional commercial entities and operates via third-party e-commerce platforms such as Taobao, JD.com, Pinduoduo, Lazada, Amazon, Paipai, and eBay (Luo, 2024).

Due to its unique business model and flexibility, C2C e-commerce has gradually become a vital component of the e-commerce landscape. The roots of the C2C e-commerce model can be traced back to the early days of the internet when individuals and small businesses began trading second-hand goods in online markets (Tang & Jia, 2023). However, C2C e-commerce gained significant traction with the emergence of platforms like eBay and Taobao. Founded in 1995, eBay was among the pioneers of C2C e-commerce and inspired the creation of numerous other online marketplaces. As China's largest C2C platform, Taobao has provided countless entrepreneurial opportunities and spurred the robust growth of C2C e-commerce in China (Wang & Yi, 2022).

#### *Online shopping*

Online shopping, also known as internet shopping or online shopping, is a significant activity within B2C and C2C e-commerce models and has become a fashionable and convenient shopping method in recent years in China (Xu, 2015). According to a simplified version of the "2009-2010

China Online Shopping Industry Development Report" released by iResearch Consulting Group, "online shopping refers to the process where goods or services are transferred from businesses/sellers to individual users (consumers) via the internet. Throughout this process, there is involvement of the internet in the flow of funds, logistics, and information, and any part of it is referred to as online shopping" (Wang & Yi, 2022).

#### *The network security in C2C e-commerce*

The main threats to network security in C2C e-commerce (Wang & Zhang, 2019) include: 1) Information Leakage: It's widely recognized in literature that information leakage is a serious issue in C2C e-commerce. This involves personal information of both parties involved in transactions, payment details, and transaction content. Attackers may intercept and steal this information for fraudulent purposes or misuse. 2) Transaction Fraud: Literature also addresses transaction fraud as a significant problem. Examples include fake transactions, malicious reviews, and fraudulent payments. These activities not only harm consumers' interests but also impact the reputation of C2C e-commerce platforms. 3) Technical Vulnerabilities: Some studies highlight technical vulnerabilities inherent in C2C e-commerce platforms themselves. Issues such as inadequate security measures, outdated data encryption technologies, and other vulnerabilities can potentially be exploited by attackers.

#### *Product value*

Product value primarily includes product quality and product price. According to the results from iResearch Market Consulting's "Survey on Internet Habits and Consumer Behavior of iResearch Netizens," the primary reason why online users do not intend to purchase products online is their lack of understanding of product quality, accounting for 34.6% of responses. Product quality is a core component of product value, directly influencing consumer satisfaction and loyalty. In C2C e-commerce platforms, consumers place high importance on product quality (Xie & Chen, 2023).

Therefore, in e-commerce, due to uncertainty about product quality, differences in product prices become the main reasons why consumers shop online (Cai et al., 2021). Only by doing so can consumers improve the cost-effectiveness of their purchases and increase personal utility. Consumers are willing to take some risks to buy products if they are satisfied with their first purchase, which encourages repeat purchases.

#### *Service Quality*

Service value plays a pivotal role in the field of e-commerce, which covers a variety of aspects such as interactivity (Wu, 2015), personalised services (Zhang, 2013), logistics services (Jiang, 2010) and after-sales services (Qi & Peng, 2013) between firms and customers.

Interactivity enhances the customer experience through convenient information communication tools and direct dialogue; personalised services provide customized products and services according to customers' needs to meet their individual requirements; logistics services ensure

the effective delivery of goods, which is an indispensable part of e-commerce; and perfect after-sales services enhance customers' trust in products and enterprises. The value of these services not only reflects the trend of modern market competition but is also an important way for enterprises to improve their core competitiveness and win the market.

#### *Corporate Image*

Generally, corporate image refers to the overall image of an enterprise recognized by the public through external characteristics and operational strength. In the context of e-commerce transactions, since intermediary websites typically have high credibility, the concept of image value here mainly refers to the reputation of specific online stores on these websites. The reputation of an online store specifically denotes the degree to which it has earned customer trust and praise, encompassing credibility, reputation, and its impact on consumers. If a particular online store is perceived as honest, reliable, and fair in its dealings with customers, informal word-of-mouth communication will attract more consumers to shop at that store, increasing customer satisfaction and trust in the store (Wang, 2019).

#### *User-Centered Design Theory*

In 1980, Oliver first proposed the Expectation and Disconfirmation Theory while studying consumer satisfaction. He posited that expectation disconfirmation refers to the degree of difference between a user's expectations before purchasing a product and their perceived performance after the purchase. Building on other scholars' research, expanded on the Expectation Confirmation Theory and its model by incorporating user-perceived performance into the model, resulting in the widely used Expectation Confirmation Model in academia. This theory systematically explains the mechanism from a user's expectations before purchasing a product, through their perception of the product after purchase, to the final decision to repurchase (Churchill et al., 1982).

#### *Information Systems Success Theory*

The study of information systems originated in the United States. With the rapid development of information systems, how to construct metrics to measure their effectiveness has become a focal point for theorists. Consequently, scholars both domestically and internationally have evaluated and measured the effectiveness of information systems based on different research contexts, yet a comprehensive and widely applicable theoretical framework has always been lacking. Based on a review of related literature, American scholars proposed the Information System Success Model (also known as the D&M Model) in 1992, integrating variables such as information quality, system quality, user satisfaction, individual impact, and organizational impact (Fornell et al., 1996).

#### *User Satisfaction Theory*

User satisfaction refers to users' perceptions and evaluations of the performance, quality, and price of a product or service during its use. It can be divided into three levels: dissatisfaction, basic

satisfaction, and high satisfaction. The level of user satisfaction directly affects user loyalty, word-of-mouth communication, and purchase intention (Fornell et al., 1996).

To improve user satisfaction, enterprises need to focus on several aspects: first, enhancing product quality to meet user needs; second, optimizing service processes to improve service quality and user experience; third, setting reasonable prices to ensure product competitiveness; fourth, building a good brand image to increase user recognition and trust; and fifth, paying attention to user feedback to continuously improve products and services (Oliver, 1999).

User satisfaction theory studies the degree of user satisfaction during the use of products or services and its influencing factors. Through research on user satisfaction, enterprises can better improve the quality of their products or services, and thus enhance user satisfaction and loyalty.

## **Methodology**

This paper employs a quantitative research approach. Based on existing theories and previous studies, the content of the scale items was confirmed, and the questionnaire was distributed and analyzed. The questionnaire content was adjusted according to feedback from the data, forming the final version of the questionnaire. SPSS was used for reliability and validity analysis of the questionnaire data.

In the main body of the questionnaire, the screening items and personal information have clear corresponding answers and follow the principle of "no overlap, no omission" in their design, presented in a multiple-choice format. The scale items related to respondents' personal attitudes, which are difficult to quantify, are measured using a Likert five-point scale. This scale quantifies respondents' subjective attitudes into specific scores: 1 to 5, representing "very dissatisfied," "dissatisfied," "neutral," "satisfied," and "very satisfied," respectively. Higher scores indicate a higher level of agreement with the item statement, thereby achieving quantification of latent variables. The questionnaire consists of 20 questions, with items on network security and service quality totaling 7 each, while product value and corporate image have 3 items each. Each variable is designed with corresponding items and coded accordingly, as shown in Table 1.

Considering factors such as time and labor costs, this study primarily used two methods for data collection: online distribution and paper questionnaire distribution. The online distribution mainly used email and social networking tools like QQ, the paper questionnaires were distributed primarily to students and teachers picking up parcels at various delivery points within the North University campus. Using the above methods, a total of 300 questionnaires were distributed. Of these, 200 were distributed online, with 182 returned; 100 were paper questionnaires, with 94 returned. A total of 276 questionnaires were returned, with a response rate of 92%. After reviewing the returned questionnaires and removing incomplete ones and those with uniform answers, 265 valid

questionnaires were obtained, with an effective response rate of 96%.

**Table1:** Factors influencing corporate image value

Variable	Measurement items	NO.
Network Security	1. Are you satisfied that Taobao.com provides adequate security measures for transactions?	Q1
	2. Taobao site regulations and security mechanisms can fully protect your rights and interests in terms of satisfaction?	Q2
	3. Taobao website provides a safe trading environment in terms of satisfaction?	Q3
	4. Taobao website will not leak your personal data aspects satisfied?	Q4
	5. Taobao website credit evaluation system can provide protection for your purchase behaviour aspects of satisfaction?	Q5
	6. Taobao website has the ability to prevent lawbreakers (hackers) to invade the site aspects of satisfaction?	Q6
	7. How satisfied is Taobao's website with the constant warnings in case of insecurity?	Q7
Product Value	1. Are you satisfied with the price-performance ratio of the goods offered by the seller?	Q8
	2. Are you satisfied with the quality of the goods provided by the seller?	Q9
	3. Satisfied with the abundance of goods offered by the seller?	Q10
Service Quality	1. Was the seller satisfied with the friendliness of the service during your purchase?	Q11
	2. Is the information about the goods provided on the seller's website accurate and satisfactory?	Q12
	3. Is the seller satisfied that the information provided on the website is easy to understand?	Q13
	4. Is the seller satisfied with the timeliness of your questions?	Q14
	5. Are you satisfied with the personalised service you can provide on the seller's website?	Q15
	6. Is the seller's delivery speed satisfactory?	Q16
	7. Is the seller's after-sales service attitude satisfactory?	Q17
Corporate Image	1. The C2C e-commerce company has a good brand image and a reliable and good reputation?	Q18
	2. the C2C e-commerce company has positive values and cultural vision?	Q19
	3. Is the seller satisfied with the honesty and reliability?	Q20

### *Data Analysis*

Reliability refers to the consistency of a measure with the variable it is intended to measure. It assesses the extent to which scores can be trusted. The higher the reliability, the less error is introduced into scores from different items on the same scale. Therefore, scores on the scale move in a consistent manner among respondents, reflecting the true state of affairs. Greater consistency indicates higher reliability, and vice versa. In this study, Cronbach's Alpha is used as the basis for assessing questionnaire reliability. Generally, Cronbach's alpha values range from 0 to 1. A higher Cronbach's alpha coefficient indicates higher questionnaire reliability. All values are greater than 0.8, indicating high stability and consistency of the scale. This demonstrates excellent questionnaire reliability in the present study, as shown in Table 2.

**Table 2:** Variable Reliability Tests

Variable	Cronbach Alpha	N of Items
Network Security	0.856	7
Product Value	0.880	7
Service Quality	0.895	7
Corporate Image Value	0.901	6

Validity refers to the examination of the validity of each variable in the questionnaire. Factor analysis is a commonly used method to test the validity of a questionnaire. The validity of the questionnaire is determined through factor analysis. The KMO test and Bartlett's sphericity test of the questionnaire need to be conducted before principal component factor analysis. Factor analysis can only be conducted if the KMO value is greater than 0.7. The survey data show that the overall KMO value is 0.907, with a significance of 0.000, which is less than 0.05, reaching a significant level, indicating that factor analysis can be performed. This study employs confirmatory factor analysis (CFA). The results of factor analysis on each variable indicate that the KMO and Bartlett's sphericity tests were conducted on the pre-test data to validate the structural validity of the scale. The results are shown in Table 3, with KMO values exceeding 0.8 and significant Bartlett's sphericity test, indicating good structural validity of the scale. This implies good independence of each dimension, indicating good overall validity of the questionnaire.

**Table 3:** KMO and Bartlett's test

Kaiser -Meyer -Olkin Sampling Adequacy Measures		0.837
Bartlett's test of sphericity	Approx. CARTES	6942.00
	df	194
	organizations	0.000

## Results

Correlation analysis is primarily used to illustrate the relationships between various variables. Pearson correlation analysis is employed to elucidate the linear relationships between variables, with Pearson correlation coefficients ranging from -1 to 1. Utilizing Pearson correlation coefficient analysis, an examination of the relationships among the factors influencing impulsive purchasing was conducted. According to Table 4, it can be concluded that the Pearson correlation coefficients for network security, product value, service quality, and corporate image value are all greater than 0.5 but less than 0.9, with  $P < 0.01$ , indicating significant positive correlations among these variables.

Based on the table, it is evident that the Pearson correlation coefficients for network security, product value, service quality, and corporate image value are all greater than 0.5 but less than 0.9, with  $p < 0.01$ , indicating significant positive correlations among these variables.

The Pearson correlation coefficient between network security and product value is 0.591,  $p <$



0.01, indicating a moderate positive correlation between them.

The Pearson correlation coefficient between network security and service quality is 0.551,  $p < 0.01$ , indicating a moderate positive correlation between them.

The Pearson correlation coefficient between network security and corporate image value is 0.572,  $p < 0.01$ , indicating a moderate positive correlation between them.

The Pearson correlation coefficient between product value and service quality is 0.665,  $p < 0.01$ , indicating a moderate positive correlation between them.

The Pearson correlation coefficient between product value and corporate image value is 0.692,  $p < 0.01$ , indicating a moderate positive correlation between them.

The Pearson correlation coefficient between service quality and corporate image value is 0.675,  $p < 0.01$ , indicating a moderate positive correlation between them.

Based on the above research analysis, factors influencing customer satisfaction include network security, product value, service quality, and corporate image value. Therefore, to enhance customer satisfaction, it is necessary to address these three aspects using rational and scientific management methods. The correlations between variables indicate that each variable plays a role in the model, reflecting the validity of the model construction.

**Table 4:** Correlation between variables (Pearson correlation matrix)

Variable	Network Security	Product Value	Service Quality
Network Security	1		
Product Value	.591**	1	
Service Quality	.551**	.665**	1
Network Security	.572**	.692**	.675**

Note: \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

## Discussion

To enhance customer satisfaction on C2C e-commerce platforms, various aspects need to be addressed, including network security, product value, service quality, and corporate image value. Firstly, network security measures should be strengthened, such as regularly updating security technologies, enhancing user privacy protection, and establishing trust mechanisms, to ensure secure and reliable transactions. Secondly, product value should be enhanced by deeply understanding customer needs, optimizing product portfolios, and improving the quality of product reviews and feedback systems, ensuring that the products on the platform meet customers' actual demands. Meanwhile, service quality is also crucial, requiring improved response speed, strengthened professional training, enhanced service attitudes, and comprehensive after-sales support to provide an excellent service experience. Lastly, corporate image value can be elevated through strengthening brand building and promotion, enhancing service quality and customer experience, establishing and

maintaining a sound reputation system, as well as strengthening cooperation and alliances with other enterprises, thereby increasing customers' trust and satisfaction in the platform. The combined implementation of these measures will help to improve customer satisfaction on C2C e-commerce platforms and enhance users' willingness to continue using them.

## Conclusions

Through correlation and regression analyses, Pearson correlation coefficients for network security, product value, service quality, and corporate image value were obtained: 0.591, 0.551, 0.572, and 0.584, respectively. All coefficients are greater than 0.5 but less than 0.9, with  $p < 0.01$ , indicating significant correlations among the variables. In the regression analysis, the coefficients for network security, product value, service quality, and corporate image value were found to be 0.145, 0.218, 0.112, and 0.297, respectively, demonstrating positive correlations with customer satisfaction. The study results indicate that factors such as network security, product value, service quality, and corporate image value influence customer satisfaction positively in C2C e-commerce.

### *1) Network Security in C2C E-commerce has a Positive Impact on Customer Satisfaction.*

In C2C e-commerce platforms, network security has a significant positive impact on customer satisfaction. By building customer trust in the platform, guaranteeing transaction security, protecting customer data privacy, enhancing brand image, and improving user experience, a high standard of network security can ensure that customers enjoy a safe and reliable transaction environment on the platform, thus significantly increasing customer satisfaction. Therefore, platform operators should attach great importance to the construction and management of network security in order to win customers' trust and satisfaction.

### *2) Product Value in C2C E-commerce has a Positive Impact on Customer Satisfaction.*

The ability of products to meet customer needs, provide cost-effective and personalized services are all key factors in enhancing customer satisfaction. By accurately grasping customer needs, optimizing product mix, and providing customized and high-quality services, C2C platforms can effectively increase the value of their products, thereby enhancing customer satisfaction and loyalty.

### *3) Service Quality in C2C E-commerce has a Positive Impact on Customer Satisfaction.*

In a C2C e-commerce environment, service quality is key for customers to assess the performance of the platform and decide whether to use it again. Research shows that service quality has a significant positive effect on customer satisfaction. Platforms should focus on improving response speed to ensure that customer needs are met in a timely manner; enhancing service professionalism to provide accurate and effective purchasing advice; demonstrating a friendly service attitude to increase customer intimacy; and improving after-sales support systems to ensure that

customers have worry-free shopping. Together, these measures promote the improvement of the platform's service quality, which in turn enhances customer satisfaction and loyalty.

4) *The Positive Impact of Corporate Image Value on Customer Satisfaction in C2C E-commerce.*

In a C2C e-commerce environment, the value of corporate image is a key factor in enhancing customer satisfaction and loyalty. A good corporate image enhances customer trust in the platform, fosters brand loyalty, and promotes positive word-of-mouth communication. Research and practice have shown that C2C e-commerce platforms can effectively enhance the value of corporate image by actively fulfilling their social responsibilities and improving brand awareness and reputation, which in turn enhances customer satisfaction and loyalty and lays a solid foundation for the sustainable development of the platform.

## References

- Cai, L., Huang, Z. H., Liang, Y., & Zhu, Y. Y. (2021). A review of data pricing research. *Journal of Frontiers of Computer Science & Technology*, 15(9).
- Churchill, G. A., Jr., & Surprenant, C. (1982). An Investigation of Complaint Handling Strategies. *Journal of Marketing Research*, 19(4), 474-486.
- Deng, A. M., Tao, B., & Ma, Y. Y. (2014). An empirical study on the influencing factors of customer loyalty in online shopping. *Chinese Journal of Management Science*, 22(6), 94-102.
- Fornell, C., Johnson, M. D., Cha, J., & Bryant, B. E. (1996). The American Customer Satisfaction Index: Nature, Purpose, and Findings. *Journal of Marketing*, 60(4), 7-18.
- Hua, B. (2010). A review of the development of online shopping in China. *Cyber Wealth*, (21), 187-188.
- Jiang, Q. Y. (2010). Discussion on countermeasures for logistics enterprises to carry out personalized services. *Modern Economic Information*, (23), 364-364.
- Luo, Y. (2024). On the research of security assurance obligations of e-commerce platforms. *E-Commerce Letters*, 13, 1432.
- Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, 63(Special Issue), 33-44.
- Qi, L. L., & Peng, H. W. (2013). Analysis and countermeasures of the current situation of after-sales service of small and medium-sized enterprises' e-commerce. *Tianjin Economy*, (10), 73-76.
- Tang, F. C., & Jia, K. (2023). The impact of platform entry into complementary markets on platform competitive advantage. *Management Review*, 35(12), 228.
- Wang, Y., & Zhang, L. (2019). Analysis of information leakage risks in C2C e-commerce platforms. *Journal of Electronic Commerce Research*, 20(1), 35-50.
- Wang, Q. (2019). The image of Chinese enterprises in the English media of the "Belt and Road" initiative: A corpus-assisted critical discourse analysis. *Contemporary Foreign Languages*

*Studies*, 19(03), 99.

Wu, X. M. (2015). Research on the impact of e-commerce website characteristics on flow experience.

*Journal of Chongqing University (Social Sciences Edition)*, 21(3), 50-57.

Wang, T. S., & Yi, Y. Z. (2022). *An overview of the development of cross-border e-commerce in*

*China*. Chongqing University Electronic Audio-Visual Publishing House Co., Ltd.

Xie, H. L., & Chen, Q. R. (2023). The connotation, objectives, and models of realizing the value of

ecological products. *Economic Geography*, 42(9), 147-154.

Xu, M. (2015). Entrepreneurial model selection and path optimization for college students in the

"Internet+" era. *Chinese Youth Social Sciences*, 34(5), 49-55.

Zhang, L. F. (2013). On the personalized services of e-commerce websites. *China Business, Upper*

*Half-month Edition*, (11), 290-291.