



The Factors Influencing Consumer Satisfaction on the “J” Home E-commerce Platform

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Abstract. In recent years, the home e-commerce model has become a new model of home improvement, which has greatly promoted the matching efficiency of market supply and demand and the improvement of residents' living standards. Consumer satisfaction directly affects the sustainability of e-commerce platform product sales. Based on the technology acceptance model combined with the theory of full clothes of consumers, platform design, product quality, logistics quality and after-sales service are selected as independent variables to explore the influencing factors of consumer satisfaction of "J" home e-commerce platform. The results show that platform design, product quality, logistics quality and after-sales service have significant positive effects on consumer satisfaction. Finally, this paper summarizes the consumer satisfaction of "J" e-commerce platform, and provides useful suggestions on the platform operation and marketing of other furniture brands.

Keywords: home furnishing brand; e-commerce; consumer satisfaction.

1 Introduction

With the development of mobile Internet and online payment technology, the home e-commerce market has risen rapidly. In 2010, the market capacity of China's home appliance industry reached a staggering 1.9586 trillion yuan, an increase of 66.03%, which made China the world's largest producer and exporter of home appliances. China's urbanization rate is expected to exceed 70 percent by 2030, which means that there will be about 100 million new urban residents every year, of which about 10 percent of households will need to update household items driven by the renovation of old cities³, the construction of new cities and the continuous improvement of the rural living environment. Therefore, the market prospect of home e-commerce platform is very broad.⁸

With the progress of society and the continuous upgrading of people's consumption concept, consumers pay more and more attention to the quality and diversity of products when buying characteristic agricultural products and tend to more convenient shopping methods⁵. Therefore, the core of increasing the consumption proportion of household products market is to stimulate and meet the needs of consumers. ⁷This also

means that only by continuously improving and perfecting its own products and services can the home e-commerce sales platform meet the needs of consumers, improve consumer satisfaction², win the trust and loyalty of consumers, and enhance the stickiness between consumers and e-commerce platforms.

In the major changes of home furnishing market pattern under the new retail mode, the traditional home furnishing retail business has been affected by the Internet and digital technology, and the shopping behavior of customers has undergone fundamental changes.⁸ In the context of the Internet economy, many stores have implemented the O2O business model, and customers' diversified business strategies have also changed. In this situation, home furnishing brands must re-examine their business strategy to meet the needs of modern consumers, attract new customers, and improve customer retention. The J home appliance platform is a relatively complete business model in the current context of new retail, with the most home e-commerce brands. It is committed to providing high-quality home products and services. However, even in the new retail environment, the home e-commerce retail industry still needs to face a fiercely competitive market, and how to attract and retain customers has become a top priority.

2 Literature Review

Based on service quality theory, perceived value theory, and supply chain management theory, this paper elaborates the relevant theoretical basis of consumer satisfaction and previous studies. This paper reviews a wide range of literature to build an understanding and analysis of the factors affecting consumer satisfaction on the "J" home e-commerce platform.⁶

First of all, the theory of service quality is one of the core theories of this study. According to the concept of service quality proposed by Gronroos (1982), service quality mainly depends on the difference between consumers' expectation of service level and their actual perception. The service quality gap model (PZB model) proposed by Parasuraman et al in 1985 further refined this theory, pointing out the gaps between consumer expected service and manager expected service, manager expected service and service quality specification, service quality specification and actual service, service quality and consumer perception and actual perceived service. All these will affect consumers' evaluation of service quality.⁴ Then, the theory of perceived value is widely used in the study of consumer behavior. As early as the 1950s, Drucker put forward the concept of consumer perceived value, emphasizing that consumers buy the value of goods rather than the goods themselves. Jackson (1983) further clarified the definition of perceived value, arguing that it is the ratio between the perceived benefits and the price of the product when consumers consume the product, emphasizing that the price includes other hidden costs and risks besides the product label¹².

The supply chain management theory originated from the concept of "value chain" proposed by Drucker. Porter further developed this theory in the 1980s, and regarded supply chain as a form of value chain. Supply chain management has been widely used in various industries, is a dynamic overall network system, including product development, production, distribution, sales, and other links⁹.

In addition, this study discusses how e-commerce platform design with aesthetic and functional integration, product quality perception and service perception in perceived value, and logistics quality in supply chain management work together to influence consumer satisfaction. For example, Zeithaml et al define e-quality of service as the extent to which a website facilitates efficient and effective shopping, purchasing, and delivery; Fassnacht defines e-service quality from the perspective of consumers as the degree to which e-services meet the needs of relevant customers.

The four hypotheses presented in the study are as follows:

H1: Platform design has a significant positive impact on the consumer satisfaction of “J” platform.

H2: Product quality has a significant positive impact on consumer satisfaction.

H3: Logistics quality has a significant positive impact on consumer satisfaction.

H4: After-sales service has a significant positive impact on consumer satisfaction.

3 Research Methodology

The overall research object of this paper is the consumer groups who have experienced the consumption of "J" home e-commerce platform products¹. The method of random sampling was used in this study. The time frame for this study is December 2023 to March 2024. Based on existing literature and theories, a questionnaire was developed and constructed focusing on four variables affecting consumer satisfaction, namely platform design, product quality, logistics quality and after-sales service. The questionnaire includes the basic information of the respondents, the platform design, product quality, logistics quality and after-sales service of the "J" home e-commerce platform. Thirty questionnaires were administered and processed in advance, with experts assessing the effectiveness of the IOC and analyzing the reliability of the questionnaire items. The formal questionnaire survey collected a total of 400 data through the network survey platform, eliminated 15 incomplete or unreasonable invalid questionnaires, and retained only 385 valid questionnaires that met the requirements. Finally, SPSS software was used to encode and process the collected questionnaires, and the hypotheses were discussed through correlation analysis and regression analysis. After consulting three subject matter experts for verification, the consistency index between the questionnaire and the research objective is greater than 0.6. Therefore, the accuracy of the questionnaire content is within the acceptable standard range. As shown in Table 1, Cronbach's alpha values of all variables in this questionnaire exceeded 0.7, indicating that these variables had good reliability and could be used for formal questionnaire survey.

Table 1. Questionnaire Cronbach's Results of Data Analysis.

Variable Items	Sample size	N of Items	Cronbach's alpha
1. Platform design	30	4	0.824
2. Product quality	30	4	0.816
3. Logistics quality	30	5	0.886
4. After-sales service	30	4	0.887
5. Consumer satisfaction	30	4	0.842
Total	30	21	0.857

3.1 Correlation Analysis

As can be seen from Table 2, the correlation coefficient between platform design and consumer satisfaction in the study of "J" home furnishing e-commerce platform is 0.462, the correlation coefficient between product quality and consumer satisfaction is 0.487, the correlation coefficient between logistic quality and consumer satisfaction is 0.461, and the correlation coefficient between after-sales service and consumer satisfaction purchasing behaviour is 0.476. In addition, the correlation between these variables is statistically significant at the 0.01 level. The correlation coefficient between product quality and consumer satisfaction is 0.487, between logistics quality and consumer satisfaction is 0.461, and between after-sales service and consumer satisfaction purchasing behaviour is 0.438. In addition, the correlation coefficient between these variables is statistically significant at the 0.01 level.

Table 2. Correlation Analysis.

variable	Platform design	Product quality	Logistics quality	After-sale service	Consumer satisfaction
Platform Design	1	.563**	.470**	.465**	.462**
Product Quality	.573**	1	.461**	.479**	.487**
Logistics Quality	.470**	.461**	1	.368**	.461**
After-Sale-Service	.465**	.479**	.368**	1	.438**
Consumer satisfaction	.462**	.487**	.461**	.438**	1

3.2 Regressive Analysis

A take platform design, product quality, logistics quality and after-sales service as independent variables, and consumer satisfaction as dependent variables for linear regression analysis. As can be seen from the above table 3, the formula of the model is as follows:

$$BPI = \text{Consumer satisfaction}(Y) = 1.052 + 0.132 * \text{Platform design}(X1) + 0.203 * \text{product quality}(X2) + 0.236 * \text{logistics quality}(X3) + 0.167 * \text{after-sales service}(X4)$$

In addition, the multicollinearity test of the model shows that all VIF values in the model are less than 5, indicating that there is no collinearity problem. Moreover, the D-W value is near 2, indicating that there is no autocorrelation in the model, and there is no correlation between the sample data, indicating that the model is good. The final concrete analysis shows that:

(1) The regression coefficient of the platform design was 0.132(t=2.799, p=0.005< i>0.00), which means that platform design can have a significant positive impact on consumer satisfaction.

(2) The regression coefficient of product quality was 0.203($t=3.853$, $p=0.001$ & 0.03), which means that product quality will have a significant positive impact on consumer satisfaction.

(3) The regression coefficient of logistics quality is 0.236($t=4.650$, $p=0.000$ & 0.92), which means that logistics quality will have a significant positive impact on consumer satisfaction.

(4) The regression coefficient of after-sales service was 0.167($t=3.771$, $p=0.000$ & 0.04), indicating that after-sales service has a significant positive impact on consumer satisfaction.

Table 3. Anchoring feature coefficient affecting consumer satisfaction of "Ji Youjia" e-commerce platform.

Model	Coefficients ^a					
	Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics	
	B	Std.E	Beta	Sig	Tolerance	VIF
(Constant)	1.052	.199				
Platform Design	.132	0.47	.150	.149	.587	1.704
Product Quality	.203	.053	.208	.026	.583	1.715
Logistics Quality	0.236	.051	.227	.001	.713	1.402
After-Sale Service	0.167	.044	.185	.000	.706	1.417
Consumer satisfaction	.054	.122		.013	.660	

From Table 4, it can be seen that the regression coefficient and the R-square value of the model is 0.356. This means that platform design, product quality, logistics quality, and after-sales service can explain 35.6% of the variation in consumer satisfaction. It was found that the model passed the F test ($F=52.515$, $p=0.000$ & 0.05), which means that at least one of the platform design, product quality, logistics quality, and after-sales service will have an impact on consumer satisfaction.

Table 4. Anchoring feature coefficient affecting consumer satisfaction of "J" e-commerce platform.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.052	.199		5.722	.000		
Consumer satisfaction	.417	.049	.396	8.584	.013	.895	1.117
R				0.597 ^a			
R ²				0.356			
Adjusted R ²				0.349			

a. Dependent Variable: Consumer satisfaction

4 Conclusions

Research has shown that platform design has a significant positive impact on consumer satisfaction. An intuitive, aesthetically pleasing and fully functional platform design can significantly increase consumer satisfaction and loyalty. The study shows that the ease of use, aesthetics and functionality of the platform are key factors influencing consumers' purchasing decisions.¹⁰

Second, product quality has a significant and positive impact on consumer satisfaction. Consumers are unable to directly access or try out products in an e-commerce environment¹¹, so high-quality product descriptions and objective user evaluations are critical to forming an accurate consumer perception of product quality. The transparency and authenticity of this information directly affects consumers' purchase decisions, satisfaction and trust in the brand.

Third, logistics quality also has a significant positive impact on consumer satisfaction. Timely and accurate logistics services not only significantly increase consumer satisfaction, but also effectively reduce consumer inconvenience and anxiety, thus building trust and satisfaction with the brand in consumers' minds

Finally, the quality of after-sales service has a significant positive impact on improving consumer satisfaction. In the competitive environment of e-commerce, effective problem solving and fast customer feedback become decisive factors in improving customer satisfaction. Especially when dealing with consumer complaints and problems¹³, efficient after-sales service not only solves problems quickly, but also effectively restores consumers' trust and strengthens their goodwill and loyalty to the brand.

These conclusions and recommendations provide directions for e-commerce platforms to integrate comprehensive quality control and customer service strategies to maintain and enhance consumer satisfaction.

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