Consumer Evaluation of Xianyu E-commerce

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Abstract: The trading of second-hand idle goods has good development prospects, and the idle economy is a new economic model. Modern people live a prosperous life, and they only dispose of idle items at home. There is also an additional model of circular economy reuse and transactions on e-commerce platforms. The e-commerce platform for second-hand goods operated by Taobao's subsidiary Xianyu E-commerce can meet the needs of consumers, expanding the recycling of old goods and promoting the protection of the Earth's environment. Due to the fact that the sale of old products belongs to a niche market, this study surveyed the consumer group in Huai'an City as the market. Follow actual research. Understand the operational status and service quality of second-hand goods through a questionnaire. From theoretical and practical research, it has been found that there are three factors that affect the quality of operational services for second-hand goods: convenience, practicality, and interactivity, all of which have obvious mutual influence. It is also an indicator that affects consumer satisfaction. For stimulating e-commerce, it is a powerful tool for business and sustainable operation.

1. Introduction

Idle economy is a new economic model. In order to adapt to the new economic model, different companies have undergone changes in their operational models. 58.com launches idle trading software "Zhuanzhuan", Tencent launches "Paipai", and Alibaba launches "Xianyu" (Deng Dan, Zheng Yu, 2020) [1]

According to Alibaba's fourth quarter financial report for the 2020 fiscal year, Xianyu's commodity trading volume has exceeded 200 billion yuan, an increase of over 100% year-on-year. "Many professional sellers are offline distributors who switch to selling on Xianyu." A small home appliance agent told reporters that although the threshold for opening a store on Taobao is not high, in order to make their products rank at the top of the search page, they still need to spend money on advertising to attract traffic. "Xianyu registration is easier, there is no deposit, and relying on the Taobao platform is a good online sales channel." (Chen Xuening, 2022) [2]

2. Literature Review

The trading of second-hand idle items has good development prospects, and internet companies have entered the field of second-hand trading. In the second-hand trading market, Alibaba's "Xianyu" is the most representative. At present, the commercial value of second-hand trading platforms is still in the development stage, and the overall development of "Xianyu" is optimistic (Lei Yuxiao, Ai Jie, Wang Shan, 2019)[3].

According to the research of Genju scholars Xiang Guangping and Hu Jingheng (2022)[4], the transaction situation of Xianyu e-commerce (1) shows that buyers feel that the traded goods basically meet their personal needs, but are relatively satisfied with their usage functions. (2) Regarding the differences in product information descriptions, the authenticity of product description information is relatively low compared to the consistency perceived by consumers. (3) In the live streaming survey, it was found that 52.9% knew and used the live streaming function, and the knowledge and usage of live streaming did not have an absolute advantage. (4) The buyer maintains a neutral attitude towards the after-sales dispute resolution service provided by the platform, believing that the fairness of resolving disputes through the "small court" is average. (5) The fish pond function is used, but many users do not believe that the fish pond can make friends nearby and with similar interests.

For students, the idle use of campus books and other items leads to wastage of resources. The campus version of the WeChat public platform allows users to sell idle books, bicycles, and other items as second-hand items on the platform. Buyers can also browse the desired items and communicate with each other before conducting transactions on the platform. This platform does not require users to download dedicated app software. "Going with the flow" has broadened people's demand for selling idle items, reduced resource waste, and provided users with a more convenient trading channel (Wei Qinchao, Liang Zhouyu, Ma Audi, Yu Tangli, Wang Bin, Ge Fang, 2021)[5].

3. Research Methods

3.1 Reliability analysis of samples

This article conducts research on "Xianyu" players and identifies the problems they face. It provides strategies to improve service quality and enhance the development capabilities and core competitiveness of e-commerce. Taking the Huai'an University Park as the research object, a valid sample of 85 people with experience in using it was collected. A Likert 5-point scale was used, with a score of 1 being the lowest and 5 being the highest. After reliability analysis, the Cronbach's Alpha of the questionnaire was 0.966, indicating high reliability of the questionnaire. The average is 3.578, with a standard deviation of 0.469-0.767. The average score given by the user is high.

3.2 Questionnaire Item Content Design

Based on the current situation and theoretical analysis, the structure of this questionnaire can be divided into four categories. The first type is convenience: its content includes saving money, convenient functional design, saving a lot of time and energy, sellers will provide comprehensive and professional information, and can learn a lot of knowledge (selection, identification, maintenance methods, etc.). The second category is practicality: its content includes the purchased products that are consistent with the seller's introduction, the interface design of the APP is simple and beautiful, the product layout of the APP is very organized, the APP provides multiple types of product selection, the various functions of the APP are not difficult, and the APP has a complete

transaction security mechanism. (such as real name authentication, account password, Alipay transaction guarantee, etc.). The third type of interactivity: its content includes the APP providing multiple channels to interact with other users, the APP allowing users to form good friendships with many users, and the APP bringing me a sense of achievement.

4. The fourth type of satisfaction refers to the satisfaction that consumers feel after trading on the app. Its content includes that consumers are more satisfied with the Xianyu APP compared to other second-hand trading platforms, Xianyu APP is my first choice, I would feel regretful if Xianyu APP is closed, Xianyu APP continues to provide current services and I will not give up using it, and I will recommend it to others when they need it.

4.1 Basic data analysis of survey population

According to demographic surveys, the proportion of males is 37.5% and the proportion of females is 62.5%. The age group distribution is between 18 and 25 years old, accounting for 90.28%. 86.11% of professions are students, and 4.17% are teachers. Education level: 89.8% of undergraduate students. 77.78% of monthly income below 3000 yuan. The history of the Xianyu APP is 48.61% for less than 1 year, and 33.33% for 1 to 2 years of usage experience. The average monthly usage of the Xianyu APP is 54.17%, with a minimum of one usage per month. The proportion of 2-3 times per month is 54.17%. 30% of old books are traded the most on the platform, followed by 15% of old clothes. The analysis of the indicators that consumers care about is as follows: the primary indicators are divided into four categories. The second level indicators are divided into 24. The relevant situation is handled using the least squares method.

4.2 Factor Load Factor Analysis

After structural model analysis, it was found that the factor loading coefficient table (Table 1) is the model's factor loading coefficient table, including latent variables, analysis items, non-standard loading coefficients, z-test results, etc. When measuring relationships, the first term will be used as a reference term, so statistical measures such as P-values will not be presented. The factor loading coefficient screens the measured variables within the factor. Generally speaking, the measured variables pass the significance test ($P<0.05$), and the standardized loading coefficient value is greater than 0.4 (strictly 0.6, the system default threshold is 0.4), indicating that the measured variables meet the factor requirements. The measurement relationship is good. Generally speaking, the standardized load factor values are generally greater than 0.4 (strictly 0.6, the system default threshold is 0.4).

Table 1: Value Table of Factor Load Coefficients

Factor	variable	non-standard load factor	standardized load factor	z	S.E.	P
Factor 1 Convenience	1	1	0.78	-	-	-
	2	0.881	0.773	6.841	0.129	0.000***
	3	0.828	0.688	5.976	0.139	0.000***
	4	0.896	0.758	6.684	0.134	0.000***
	5	0.94	0.735	6.451	0.146	0.000***
	6	0.848	0.683	5.921	0.143	0.000***
Factor 2 practicality	7	1	0.661	-	-	-
	8	1.15	0.697	5.356	0.215	0.000***
	9	1.045	0.635	4.932	0.212	0.000***

	10	1.371	0.814	6.111	0.224	0.000***
	11	1.29	0.808	6.073	0.212	0.000***
	12	1.094	0.713	5.46	0.2	0.000***
Factor 3 Interactivity	13	1	0.764	-	-	-
	14	1.018	0.823	7.532	0.135	0.000***
	15	0.957	0.71	6.322	0.151	0.000***
	16	1.024	0.783	7.09	0.144	0.000***
	17	0.965	0.77	6.956	0.139	0.000***
Factor 4 Satisfaction	18	1	0.895	-	-	-
	19	0.928	0.806	9.167	0.101	0.000***
	20	0.817	0.747	7.996	0.102	0.000***
	21	0.919	0.821	9.492	0.097	0.000***
	22	0.861	0.755	8.144	0.106	0.000***
	23	0.974	0.862	10.489	0.093	0.000***
	24	-0.072	-0.099	-0.822	0.088	0.411
Note: * * *, * *, * * represent significance levels of 1%, 5%, and 10%, respectively						

4.3 Analysis of Model Regression Coefficients

The regression coefficient of a path node can be understood as a least squares univariate linear regression. Usually, only the P-value and the standardized path coefficient need to be observed to determine whether the path (X ->Y) has a direct linear impact. According to the significance test analysis (P<0.05), whether there is an impact relationship between the model variables. If there is significance, it indicates that there is an influence relationship between variables, and the standardized path coefficient can be used for in-depth analysis of the impact efficiency. From Figure 1, it can be seen that the interrelationships between indicators are detailed in Table 2 of the model path coefficients. The explanation is as follows:

Based on the paired item factor 1 convenience ->factor 2 practicality, with a significance P-value of 0.000 * *, indicating significance at the horizontal level, the null hypothesis is rejected. Therefore, this path is valid with an impact coefficient of 0.819.

Based on the pairwise factor 2 practicality ->factor 3 interactivity, with a significance P-value of 0.000 * *, the null hypothesis is rejected if it shows significance at the horizontal level. Therefore, this path is valid with an impact coefficient of 0.979.

Based on the paired item factor 1 convenience ->factor 4 satisfaction, the significance P-value is 0.282, which is not significant at the level. Therefore, the null hypothesis cannot be rejected, and this path is invalid.

Based on the paired item factor 2 practicality ->factor 4 satisfaction, the significance P-value is 0.893. If there is no significance at the level, the null hypothesis cannot be rejected, therefore this path is invalid.

Based on the paired item factor 3 interactivity ->factor 4 satisfaction, with a significance P-value of 0.316, if there is no significant level, the null hypothesis cannot be rejected, therefore this path is invalid.

The first type is convenience. The second category is practicality. The third type of interactivity: The fourth type of satisfaction:
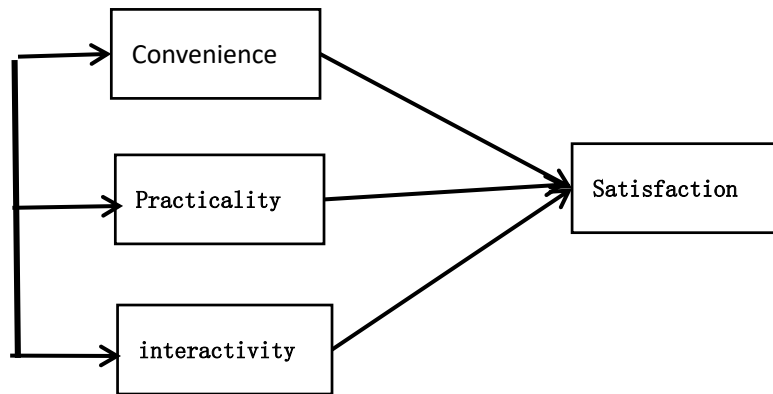
Figure 1: Key Indicator Architecture oy Xianyu E-commerce

Table 2: Regression coefficient table of the model

Latent Variable	→	Analysis item (explicit variable)	Non standardized coefficient	Standardized Coefficient	standard error	Z	P
Factor 1 Convenience	→	Factor 2 practicality	0.603	0.819	0.118	5.101	0.000***
Factor 2 practicality	→	Factor 3 Interactivity	1.240	0.979	0.218	5.698	0.000***
Factor 1 Convenience	→	Factor 4 Satisfaction	-0.182	-0.169	0.169	-1.077	0.282
Factor 2 practicality	→	Factor 4 Satisfaction	-0.238	-0.163	1.780	-0.134	0.893
Factor 3 Interactivity	→	Factor 4 Satisfaction	1.386	1.201	1.381	1.004	0.316
Note: ＊＊＊, ＊＊, ＊＊ represent significance levels of 1%, 5%, and 10%, respectively							

4.4 Analysis of Model Fitting Indicators

The chi square and degree of freedom df are mainly used to compare multiple models. The smaller the chi square value, the better. The degree of freedom reflects the complexity of the model. The simpler the model, the more degrees of freedom it has. Conversely, the more complex the model, the fewer degrees of freedom it has (Table 3). (1) GFI (goodness of fit index): It mainly uses judgment coefficients and regression standard deviation to test the degree of fit of the model to the observed values of the sample. Its value ranges from 0 to 1, and the closer it is to 0, the worse the fit. If CFI ≥ 0.9, it is considered that the model fits well. (2) RMSEA (Root Mean Square Error): In general, RMSEA is below 0.08 (the smaller the better). (3) RMR (Root Mean Square Residual): This indicator measures the degree of fit of the model by measuring the average residual between predicted correlation and actual observed correlation. If RMR<0.1, it is considered that the model fits well. (4) CFI (Comparative Fit Index): This index has a value between 0-1 when comparing hypothetical and independent models. The closer it is to 0, the worse the fit, and the closer it is to 1, the better the fit. In general, if the CFI is ≥ 0.9, it is considered that the model fits well. (5) NNFI (Non canonical Fit Coefficient) and CFI (Comparative Fit Index): The larger the value, the better, and the better the fitted model performs.

Table 3: Model fitting indicators

χ²	df	P	Chi square degree of freedom ratio	GFI	RMSEA	RMR	CFI	NFI	NNFI
-	-	>0.05	<3	>0.9	<0.10	<0.05	>0.9	>0.9	>0.9
517.106	247.000	0.000***	2.094	0.677	0.124	0.116	0.796	0.677	0.772
Note: * * *, * *, * * represent significance levels of 1%, 5%, and 10%, respectively									

5. Conclusion

From theoretical and practical research, it is found that convenience, practicality, and interactivity all have a significant mutual influence. But they are not very helpful in improving satisfaction. From this, it can be seen that this item is easy to obtain, but in order to gain a foothold on the internet, it still requires various sellers to put in effort to operate, create popularity and passion, in order to sustain business.

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