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Influence of JD Platform Return Reverse Logistics Service Quality on Customers' Repurchase Intention

Jiali PENG¹, Xinyu CHANG², Han ZHANG³, Aocheng WU⁴

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Abstract

Purpose: This research adopts the SERVQUAL and LSQ frameworks to examine the correlation between return reverse logistics service quality of the JD platform and customer satisfaction, as well as the linkage between consumer satisfaction and repurchase intention. **Research design, data and methodology:** A comprehensive literature review on both domestic and international logistics service quality has been conducted. Considering the unique aspects of JD's return reverse logistics services, an evaluation framework with 5 dimensions and 21 indicators is formulated, including communication, information, return process, empathy, and convenience. A conceptual model exploring the influence of JD's reverse logistics service quality on customer repurchase intention is developed, proposing six hypotheses. For this investigation, 358 valid questionnaires were collected, processed, and analyzed using SPSS 22.0. The structural equation modeling was conducted and validated through AMOS 21.0 software. **Results:** Following a thorough analysis of data, it reveals that: (1) Information quality, return process quality, and empathy significantly enhance customer satisfaction. (2) Customer satisfaction positively impacts repurchase intention. **Conclusion:** Based on these findings, three strategic recommendations are offered for e-commerce platforms with in-house logistics systems. The research also discusses limitations and future research directions.

Keywords: Return Reverse Logistics Service Quality, Customers' Repurchase Intention, Customer Satisfaction, Structural Equation Model

JEL Classification Code: D12, L14, L81, M21

1. Introduction

Amidst the growth of the internet economy, China's e-commerce market has seen considerable advancement and stabilization. For e-commerce platforms to secure a competitive edge in the intense market landscape, prioritizing customer retention and fostering enduring, stable relationships with them is paramount. The disparity in

service quality delivered by these platforms has emerged as a critical determinant in customer loyalty. Within this context, the caliber of logistics services substantially influences customers' perceptions and appraisals of e-commerce platforms. As the positive logistics service quality across major e-commerce players has reached a comparable level, the provision of return reverse logistics services has ascended as a pivotal competitive differentiator

1 First and Corresponding Author. Assistant Professor, School of Business Administration, Henan Finance University, China. Email: pengjiali@hafu.edu.cn

2 Second Author. postgraduate, School of Management and E-Business, Zhejiang Gongshang University, China, Email: 20191505020119@stu.hafu.edu.cn

3 Third Author. postgraduate, Department of Global Cultural Integration, Kangwon National University, Korea, 202316578@kangwon.ac.kr

4. Fourth Author. postgraduate, School of Public Finance and Taxation, Hebei University of Economics and Business, China, 20191505020106@stu.hafu.edu.cn

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among these platforms.

As per the 53rd Statistical Survey of Internet Development in China released by the China Internet Network Information Center (CNNIC), the expansion of the internet user base and the internet penetration rate are anticipated to decelerate progressively from 2018 through 2023. By 2023, the internet penetration rate is expected to see a marginal increase of merely 1.9% over the preceding year. Concurrently, the swift advancement of e-commerce has cultivated a more sophisticated and discerning online shopping experience for consumers, culminating in an uptick in returns as a frequent occurrence. In the realm of online shopping, a fundamental information gap between merchants and customers dictates the inevitability of reverse logistics for returns. Consequently, diverse e-commerce platforms engage in a dual contest of product excellence and logistics service quality. Within this arena, the significance of return reverse logistics service quality on consumer contentment is undeniably substantial and should not be overlooked (Phuong, 2019). The service quality of return reverse logistics will affect customer experience, and customer satisfaction may affect customers' repurchase decision. How to improve the return reverse logistics service to improve the reverse logistics service quality, increase customer satisfaction and further affect customer repurchase behavior is an important issue that needs to be solved by the current e-commerce platform. Most previous studies have rich results on the evaluation system of reverse logistics service quality and the effect of logistics service on customer satisfaction. However, rarely studies have considered the relationship between reverse logistics service and customer satisfaction and customer repurchase intention. Therefore, studying the effect of return reverse logistics service quality and customer satisfaction on repurchase intention, combining with the characteristics of reverse logistics is theoretically and practically crucial to assist reverse logistics improvement and e-commerce platform development.

JD.com, China's top e-commerce enterprise with a comprehensive self-operated model, offers an integrated service spanning product selection, purchase, and delivery. Leveraging its proprietary logistics infrastructure and management, JD.com ensures real-time product tracking, logistical transparency, and reliable delivery from selection to receipt. This commitment extends to its return reverse logistics, delivering a seamless customer experience.

Given these strengths, this research focuses on JD.com's robust self-constructed logistics system to examine factors affecting return reverse logistics service quality and how return reverse logistics service quality affects customer satisfaction and subsequently repurchase intentions utilizing SERVQUAL and LSQ models. The objective of this research is to offer targeted recommendations aimed at

enhancing JD.com's reverse logistics service quality, thereby augmenting customer satisfaction and fostering repeat purchases. It contributes to the literature on return reverse logistics and repeat purchase behavior, offering theoretical basis for optimizing e-commerce return service quality. This endeavor can facilitate e-commerce platforms like JD.com in bolstering customer satisfaction, enhancing the shopping experience which can help customers have a better shopping experience, attracting repeat purchase, expanding market share, and ultimately advancing the evolution of e-commerce.

2. Literature Review and Hypotheses

2.1. Return Reverse Logistics Service Quality

The most recent studies have addressed the economic and environmental benefits of reverse logistics, yet there remains a gap in research exploring how the integration of reverse logistics operations with the triple bottom line of sustainability performance can potentially bolster sustainability and service quality (Sajjanit & Rompho, 2019; Dabees et al., 2023). Building on this, the study spotlights reverse logistics practices in Pakistan, delving into their impacts on competitive advantage, while considering the intervening role of a firm's organizational performance within Pakistan's manufacturing industries (Khan et al., 2022). This research contends that the essence of return reverse logistics service quality lies in the experience of these services provided by e-commerce platforms that customers undergo throughout the entirety of the return procedure. From the vantage point of assessing the caliber of reverse logistics services for returns, Tiwari (2013) proposes that service quality and recovery followed by Standardization of reverse logistics process, customer's involvement and reverse logistics strategy can enhance customer satisfaction. Li and Lu (2019) devised an evaluative framework encompassing five dimensions and seventeen metrics. These encompass communication quality, information quality, return process quality, convenience, and empathy, all grounded in the SERVQUAL and LSQ models. Employing factor analysis coupled with the AHP (Analytic Hierarchy Process), the scholars opted for a fuzzy comprehensive evaluation methodology to reach their conclusions.

Drawing upon the dimensions of logistics service quality outlined in the literature above and integrating them with the consumer shopping behaviors on JD's platform, this research delineates the dimensions of reverse logistics service quality into five key components: communication quality, information quality, empathy, return process quality, and convenience .

2.1.1. Communication Quality

Tao et al. (2021) indicates that Communication quality, as defined by the question-and-answer services provided by e-commerce platforms to customers, plays a pivotal role in addressing return requests. The timeliness and adequacy of the response, along with a friendly and proactive attitude, are positively correlated with customer satisfaction. Therefore, should customers encounter a commendable communication attitude, swift response times, and timely feedback from JD platform representatives throughout the entirety of the return process—surpassing their expectations—it is likely to enhance customer satisfaction. Consequently, the following hypothesis is posited:

H1: Communication quality has a positive impact on customer satisfaction.

2.1.2. Information Quality

Proactively furnishing customers with precise logistics information and its timely updating significantly impacts customer satisfaction (Liu et al., 2019). Bajar et al. (2024) indicates that disreputable technology, limited capacity of IT systems and operational inefficiency are the most important factors to be dealt with by automobile industry professionals and enhanced reverse logistics processes utilizing blockchain technology. Given that the return process on JD's platform is predominantly conducted online and chiefly relies on informational exchange for communication, it doesn't reflect the simplicity and speed of offline returns. Information, therefore, becomes a crucial foundation for the seamless execution of reverse logistics throughout the return procedure. Against the backdrop of rapidly advancing new retail and accelerating logistics, whether customers can access timely return reverse logistics information and accurately gauge the arrival timing of products substantially influences their return experience on the JD platform. For instance, in cases where an error arises in a specific logistics step, whether customers can leverage the information records provided by the platform to prevent disputes with merchants, or obtain updated logistics details to track the product's location, are determinants of the return logistics service experience on JD's platform, thereby affecting customer satisfaction. Hence, the following hypothesis is put forth:

H2: Information quality has a positive impact on customer satisfaction

2.1.3. Quality of Return Process

In the realm of reverse logistics, streamlining the customer return and exchange process, reducing the refund cycle, and offering services such as free returns are crucial for enhancing customer satisfaction (Amini & Retzlaff, 1999). Griffis et al. (2012) empirically demonstrated that customers express greater contentment with the merchant's service and engage in more subsequent purchases when

funds are restored to their possession expeditiously. Given the intangible nature of internet transactions, customers are unable to physically assess the product characteristics on JD's platform. Consequently, upon receiving the goods, a myriad of factors including personal preferences and product quality may precipitate return intentions. In such cases, if customers encounter unexpectedly lenient and equitable return policies, a variety of return methods, reasonable return fees, and timely, publicly traceable return inquiries, their satisfaction levels will be significantly raised. Thus, the following hypothesis is posited:

H3: The quality of the return process has a positive impact on customer satisfaction.

2.1.4. Convenience

Simplifying the return process and its associated procedures is a key method to enhance the convenience of return services (Uvet, 2020). Farquhar and Rowley (2009) conceptualize service convenience as the optimal utilization of consumers' time and effort to access relevant services, which constitutes a perception of both the service and its convenience. This perception is particularly pivotal in customers' experiential evaluations of products and services. Lysenko-Ryba (2017) propounds that achieving customer satisfaction is increasingly dependent on the efficiency of returns and complaints and delivery speed. In the current fast-paced life, people increasingly seek convenience and efficiency in both their professional and personal lives. Choi et al. (2019) show that logistics service quality, mainly delivery quality, has a statistically significant impact on customer satisfaction, and customer satisfaction has a statistically significant impact on repeat purchase behavior. If customers encounter a straightforward and user-friendly process during the return procedure on the JD platform, and can select diverse return methods such as self-dispatch or door-to-door collection based on their personal schedules, it will impact their perceived experience and augment customer satisfaction. Hence, the following hypothesis is proposed:

H4: Convenience has a positive impact on customer satisfaction.

2.1.5. Empathy

Empathy refers to the service personnel's ability to understand and align with customers during the return process, from grasping their genuine needs to advocating their benefits, thereby showcasing their capacity for empathetic understanding. Uvet (2020) argues that contact quality has an impact on customer satisfaction which includes employees' effort, the ability and knowledge to resolve product/service problems to understand The caring and meticulous service provided by staff, including personalized help offered to customers, positively impacts customer satisfaction. For example, when service

representatives display understanding towards reasonable return requests and express concern regarding the inconvenience caused by returns (Gajewska et al., 2020). It bolsters customer contentment. Therefore, experiencing a positive service attitude, tailored service, and having their needs extensively met will enhance customer satisfaction on the JD platform. Hence, the following hypothesis is posited:

H5: Empathy has a positive impact on customer satisfaction.

2.2 Customer Satisfaction and Customers' Repurchase Intention

Cardozo (1965) originally posited in 1965 that customer satisfaction positively influences the propensity for customers to repurchase. Mpinganjira (2014) suggested from a relationship marketing perspective that in online platform transactions, customer shopping satisfaction markedly enhances their proclivity for repeat purchasing. Abdul-Muhmin (2010) contends that overall satisfaction and favorable attitudes towards online shopping positively affect customers' inclination for repeat purchases. On the one hand, attitude is shaped by shopping satisfaction, while on the other, satisfaction is contingent upon factors such as product pricing, quality, and the level of customer service. Furthermore, the willingness to engage in repeat purchasing is contingent upon the customer's appraisal of the merchant's products or services; a positive appraisal augments the intention to repurchase (Srivastava & Sharma, 2013). Existing research underscores the pivotal role of customer satisfaction as an antecedent variable affecting repurchase intention. Therefore, this research elects to examine the impact of customer satisfaction with return logistics services on the propensity for repurchasing on the JD platform. Should customers be satisfied with the return logistics services they receive on JD's platform, they are more inclined to opt for the platform again when acquiring similar products subsequently. Hence, this investigation proposes the following hypothesis:

H6: Customer satisfaction has a positive impact on customer repurchase intention.

3. Research Methods

3.1. Model Design

Based on the theoretical analysis presented, this research primarily focuses on five dimensions of return reverse logistic and examines the influence of five dimensions of return reverse logistics service quality on customer satisfaction, as well as the relationship between customer satisfaction and repurchase intention. The conceptual model

is depicted in Figure 1.

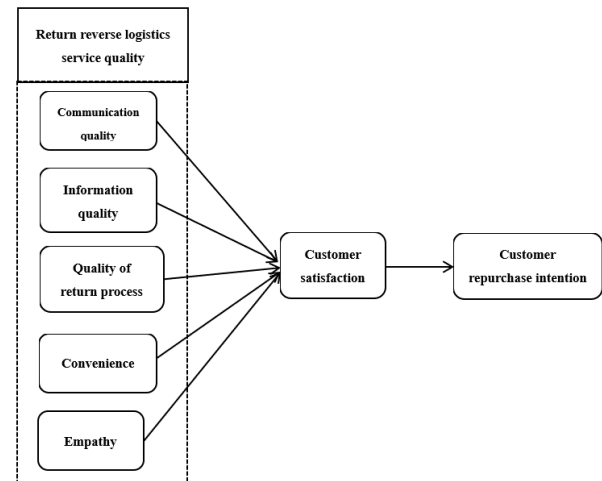


Figure 1: Research Hypothesis Model

3.2 Scale Design

Upon the foundation of prior research into return reverse logistics service quality for returns on the JD platform, customer satisfaction, and repurchase intention, this research synthesizes and adjusts measurement items from pertinent literature to develop a comprehensive scale for measuring return reverse logistics service quality for returns on the JD platform. The detailed measurement items are presented in Table 1.

3.3. Questionnaire Design and Data Collection

Given that the subject of this research does not pertain to a specific demographic, a random sampling approach was employed to distribute questionnaires, thereby ensuring the reliability of the experimental data. The research primarily utilized an online distribution of a Likert 7-point scale questionnaire, which is scored as follows: 1 point for 'strongly disagree', 2 points for 'disagree', 3 points for 'slightly disagree', 4 points for 'neutral', 5 points for 'slightly agree', 6 points for 'agree', and 7 points for 'strongly agree'.

To ensure the scientific integrity and rigor of the survey questionnaire data, a small-scale pilot survey was conducted in Zhengzhou, China, in March 2023. A total of 60 questionnaires were distributed, followed by minor adjustments. The subsequent formal survey employed a blend of online and offline QR code distribution methods for the questionnaires. Ultimately, 370 questionnaires were gathered, with 12 proving to be invalid, resulting in 358 valid responses—a response rate of 96.76%.

4. Data analysis

4.1. Sample Descriptive Analysis

Among the surveyed individuals, males constituted 42.7% while females made up 57.3%, which is slightly higher than that of males. Regarding age distribution, 25.1% of the respondents were below the age of 20, 73.2% were between the ages of 21 and 30, 0.8% were between the ages of 31 and 40, and another 0.8% were aged 41 and above. This demographic skew is attributable to the survey's focus on individuals with online shopping experience and return history, with the majority of such individuals falling within the 20 to 30 age bracket, rendering the respondent age range particularly relevant. The occupation of the surveyed individuals was predominantly students, representing 91.3%.

In terms of educational attainment, the respondents were primarily undergraduates, accounting for 79.9%. Online shopping frequency was mainly categorized as frequent and occasional, with respective proportions of 57.8% and 39.7%, indicating that the respondents form a significant segment of the online shopping populace. The highest proportion of years spent shopping online was among those with 3-6 years of experience, making up 70.1% of the respondents. The data is presented in Table 2.

4.2. Reliability and Validity Analysis

To validate the reliability and validity of the measurement methods employed in this research, we calculated Cronbach's α and conducted a principal component analysis. The findings are illustrated in Table 3.

Table 1: JD platform return reverse logistics service quality measurement scale

Variables & Measurement item
<p>Communication quality(CQ) CQ1: After submitting a return request on the JD platform, customer service will communicate promptly. CQ2: After submitting a return request on the JD platform, the customer service team displayed a polite, friendly, and patient demeanor in their communication with me. CQ3: The JD platform offers diverse communication channels, including system-based intelligent customer service, personalized customer support, and telephonic assistance, to effectively engage with me. CQ4: The JD platform efficiently and promptly addresses my demands through its communication channels.</p>
<p>Information quality(IQ) IQ1: JD platform can timely update reverse logistics information for returns. IQ2: JD platform can provide accurate and reliable reverse logistics information for returns. IQ3: JD platform can record complete information on the entire process of reverse logistics for returns.</p>
<p>Quality of return process(QRP) QRP1: The JD platform can provide me with detailed and reasonable return instructions, return rules and procedures. QRP2: JD platform can quickly respond to my return and refund requests. QRP3: JD platform can provide me with various return options, including refund only, return refund, negotiated discount refund, etc. QRP4: JD platform can charge reasonable return logistics fees.</p>
<p>Convenience(C) C1: JD platform can provide different pick-up and delivery times according to my schedule. C2: JD platform can provide me with various return methods, such as door-to-door pickup, self shipping, etc.</p>
<p>Empathy(E) E1: JD platform can proactively recommend return methods that maximize benefits for me, such as low-priced logistics methods. E2: JD platform can provide targeted return services tailored to different customer demands. E3: After I complete the return, the JD platform will inquire about my satisfaction with the entire process and provide improvement suggestions through customer service, email, SMS, and other means.</p>
<p>Customer satisfaction(CS) CS1: I am satisfied with the service attitude of JD platform personnel. CS2: I am satisfied with the return process on the JD platform. CS3: I am satisfied with the usage process of the JD platform.</p>
<p>Customer repurchase intention(CRI) CRI1: I am still willing to purchase the necessary products or services from the JD platform in the future. CRI2: The reverse logistics service for returns makes me willing to continue purchasing products on the JD platform. CRI3: When others ask for my opinion, I will recommend the JD platform.</p>

Table 2: Sample information distribution

Items	Options	Frequency	Percent
Gender	Male	153	42.7
	Female	205	57.3
Age	Under 20 years old	90	25.1
	21-30 years old	262	73.2
	31-40 years old	3	0.8
	41 years old and above	3	0.8
Occupation	Students	327	91.3
	Commuters	12	3.4
	Freelance	10	2.8
	Others	9	2.5
Education	High School and below	13	3.6
	Specialized	40	11.2
	Undergraduate	286	79.9
	Master and above	19	5.3
Frequency of online shopping	Never	9	2.5
	Sometimes	142	39.7
	Often	207	57.8
Years of online shopping	2 years and below	51	14.2
	3-4 years	146	40.8
	5-6 years	105	29.3
	7 years and above	56	15.6

Table 3: Results of component analysis

Variables	items	Component							Cronbach's α
		1	2	3	4	5	6	7	
Communication quality	CQ2	0.257	0.748	0.271	0.239	0.241	0.192	0.178	0.934
	CQ3	0.140	0.715	0.360	0.148	0.144	0.343	0.169	
	CQ4	0.252	0.709	0.326	0.297	0.237	0.161	0.160	
	CQ1	0.334	0.682	0.246	0.389	0.160	0.117	0.128	
Information quality	IQ2	0.294	0.264	0.787	0.241	0.231	0.150	0.140	0.950
	IQ1	0.232	0.326	0.785	0.192	0.205	0.181	0.151	
	IQ3	0.258	0.331	0.739	0.280	0.150	0.193	0.175	
Quality of return process	QRP3	0.307	0.386	0.287	0.644	0.273	0.242	.137	0.951
	QRP1	0.377	0.368	0.281	0.638	0.212	0.202	0.193	
	QRP2	0.354	0.332	0.373	0.600	0.251	0.207	0.211	
	QRP4	0.301	0.291	0.319	0.590	0.235	0.307	0.242	
Convenience	C1	0.344	0.280	0.244	0.187	0.729	0.313	0.089	0.886
	C2	0.207	0.268	0.308	0.357	0.701	0.138	0.265	
Empathy	E1	0.339	0.334	0.280	0.259	0.286	0.648	0.131	0.925
	E2	0.373	0.362	0.207	0.363	0.286	0.577	0.206	
	E3	0.392	0.304	0.438	0.276	0.194	0.504	0.179	
Customer satisfaction	CS3	0.447	0.302	0.317	0.257	0.256	0.235	0.586	0.953
	CS1	0.463	0.347	0.334	0.343	0.208	0.201	0.515	
	CS2	0.479	0.341	0.276	0.378	0.250	0.155	0.511	
Customer repurchase intention	CRI1	0.821	0.216	0.227	0.255	0.195	0.153	0.126	0.939
	CRI2	0.748	0.225	0.300	0.189	0.183	0.230	0.267	
	CRI3	0.712	0.275	0.263	0.312	0.213	0.278	0.141	

4.3. Testing Hypotheses on Structural Model

Confirmatory structural validity analysis was conducted for the structural equation model to further verify whether the measurement indicators belong to a certain factor. The analysis results of fitting indicators are as follows: $\chi^2=565.014$, $\chi^2 / df=3.005$, CFI=.963 GFI=.878, IFI=.963, TLI=.955, RMSEA=.075.

Subsequently, convergent validity was utilized to ascertain the structural validity of the measurement model. The outcomes of the convergent validity and discriminant validity for the measurement model are delineated in Table 4 and Table 5.

Table 4: Results of convergent validity

Variables	items	SL	SE	CR	P
Communication quality	CQ1	1.000	N/A	N/A	N/A
	CQ2	0.962	0.038	25.487	***
	CQ3	0.977	0.045	21.617	***
	CQ4	0.993	0.039	25.506	***
Information quality	IQ1	1.000	N/A	N/A	N/A
	IQ2	1.029	0.030	33.891	***
	IQ3	1.002	0.033	30.374	***
Quality of return process	QRP1	1.000	N/A	N/A	N/A
	QRP2	1.011	0.032	31.629	***
	QRP3	0.984	0.033	29.882	***
	QRP4	0.971	0.036	27.081	***
Convenience	C1	1.000	N/A	N/A	N/A
	C2	0.980	0.042	23.297	***
Empathy	E1	1.000	N/A	N/A	N/A
	E2	1.002	0.037	27.154	***
	E3	0.938	0.039	24.337	***
Customer satisfaction	CS1	1.000	N/A	N/A	N/A
	CS2	0.992	0.027	36.079	***
	CS3	0.966	0.029	32.955	***
Customer repurchase intention	CRI1	1.000	N/A	N/A	N/A
	CRI2	0.935	0.034	27.559	***
	CRI3	1.059	0.036	29.386	***

Table 5: Results of correlation analysis and discriminant validity assessment

AVE	IQ	C	E	CQ	QRP	CS	CRI
IQ	0.887						
C	0.803 (0.645)	0.892					

E	0.870 (0.757)	0.874 (0.764)	0.897				
CQ	0.811 (0.658)	0.772 (0.596)	0.806 (0.650)	0.93			
QRP	0.885 (0.783)	0.865 (0.748)	0.913 (0.834)	0.825 (0.681)	0.911		
CS	0.847 (0.717)	0.842 (0.709)	0.883 (0.780)	0.808 (0.653)	0.913 (0.834)	0.933	
CRI	0.763 (0.582)	0.783 (0.613)	0.879 (0.773)	0.751 (0.564)	0.857 (0.734)	0.909 (0.826)	0.916

From the regression coefficient values in Table 4, as well as the critical ratio CR values and AVE values in Table 5, it can be seen that the scale in this research has good convergent validity.

Then, fit index analysis was performed on the structural equation model, and the analysis results were as follows: $\chi^2=598.158$, $\chi^2 / df=3.099$, CFI=.960, GFI=.872, IFI=.961, TLI=.953, RMSEA=.077. The results indicate that the model fits well.

Based on the above analysis, the six hypotheses posited in this research were subjected to validation using a measurement model. From this, it can be concluded that the hypothesis of this research is based on the situation. The analytical results are presented in Table 6.

Table 6: Results of hypothesis testing

Hypothesis	Path	Estimate	S.E.	C.R.	P	Results
H1	CQ→CS	0.025	0.066	0.377	0.706	Rejected
H2	IQ→CS	0.104	0.048	2.179	0.029	Accepted
H3	QRP→CS	0.493	0.087	5.638	***	Accepted
H4	C→CS	0.089	0.070	1.269	0.204	Rejected
H5	E→CS	0.243	0.083	2.945	0.003	Accepted
H6	CS→CRI	0.944	0.038	24.864	***	Accepted

The aforementioned results indicate that three dimensions of reverse logistics service quality in JD.com's return process—information quality, return process quality, and empathy—positively influence customer satisfaction, which subsequently fosters customer repurchase intention. This not only validates the research hypotheses but also underscores that e-commerce platforms can maintain and expand their market share by enhancing customer satisfaction and repurchase intention through offering high-

quality return logistics services, thereby strengthening their competitiveness. Conversely, the hypotheses pertaining to communication quality and convenience were rejected.

5. Conclusions

5.1. Research Conclusions and Implications

Based on the unique attributes of reverse logistics, an evaluative index system alongside a structural equation model was devised. Following questionnaire distribution, data analysis, and model validation, the ensuing conclusions were drawn:

(1) Enhancing Reverse Logistics Service Quality Boosts customer satisfaction. Specifically, the informational quality, return process quality, and empathy associated with reverse logistics services for returns have a significant positive bearing on customer contentment.

(2) Customer satisfaction proactively impacts customer repurchase intention. Data analytical outcomes suggest that customers who are gratified with the reverse logistics service for returns on the JD platform will be inclined to persist in acquiring products through the JD platform and endorse it to others seeking purchasing advice.

Leveraging the findings from this research, some recommendations and implications are proposed for enhancement on E-commerce platform reverse logistics improvement, customer satisfaction, customer repurchase intention:

(1) Enhance the precision of product information to mitigate instances of customer returns. The underlying cause for return behavior often stems from customers' inability to genuinely perceive the product's characteristics online, leading to an information disparity between customers and merchants. Consequently, it is imperative for the JD platform to ensure real-time and effective oversight of product listings, guaranteeing that each product's description is exhaustive and precise. This measure can substantially reduce the propensity for returns and associated costs.

(2) Offer a sensible and streamlined return process, and upgrade the reverse logistics information system for returns. Experimental evidence indicates that the quality of the return process significantly impacts customer satisfaction. Thus, when customers initiate a return, if the platform can swiftly address their request by honoring its return policies and furnishing detailed and justifiable procedures alongside various return options, this will markedly elevate customer contentment and positively influence their repurchase intent. Such actions could progressively augment market share and fortify the platform's core competitiveness.

(3) Proper reverse logistics services for returns to boost customer satisfaction and repurchase desires. Based on the

empirical findings from the preceding section, we posit that offering comprehensive reverse logistics services for returns can effectively ameliorate the relationship between e-commerce platforms and customers. This enhancement would provide customers with superior experiences, heighten their satisfaction with e-commerce platforms, and increase their inclination to repurchase. By identifying information quality, return process quality, and empathy as the critical drivers of customer satisfaction and subsequent repurchase intentions, ecommerce platform can strategically allocate resources to optimize these dimensions. This targeted approach will help the platform maintain and enhance its market share amidst fierce competition.

(4) Customer-Centric for Sustainable Growth. The research underscores the importance of adopting a customer-centric mindset in designing and delivering reverse logistics services. By continuously seeking to understand and exceed customer expectations, JD.com can foster long-term loyalty, positive word-of-mouth, and ultimately, sustainable growth and increased competitiveness in the e-commerce landscape.

5.2. Future Research

The sample size of valid questionnaires in this research is restricted. During the survey questionnaire statistics process, a total of 358 valid questionnaires were gathered. While this number satisfies the fundamental requirements, expanding the sample size would enhance the precision of the analytical outcomes. Moreover, the proportion of college students within the sample is notably high, which presents certain limitations when examining the entire consumer demographic that purchases and returns goods on the JD platform. Consequently, future research should aim to increase the sample size as much as feasible, broaden the distribution range to ensure more robust and extensive data, thereby augmenting the survey results' referential significance.

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