

Creating Shared Value in Digital Service Ecosystems: Its Impact on Customer Retention through Satisfaction in Social E-Commerce

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Abstract. This study aims to explore the impact of Creating Shared Value (CSV) on Customer Retention (CR) in the social e-commerce digital service ecosystem, with a focus on the mediating role of Customer Satisfaction (CS) and the integration of agricultural supply chain and logistics. Based on stakeholder theory, social exchange theory and service-dominant logic, this study frames Pinduoduo as a typical digital service ecosystem, and identifies CSV as a core strategic governance signal shaping consumer psychological and behavioral outcome in China's sinking market. An online questionnaire survey was conducted among consumers with Pinduoduo shopping experience, and a total of 309 valid questionnaires were collected. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) alongside descriptive statistics. The results show that CSV has a significant positive impact on both CS and CR, and CS plays a significant partial mediating role (VAF=48%) between them. CSV practices of Pinduoduo (e.g., agricultural products uplink) are embedded in the platform's logistics integration and digital supply chain coordination, which realize the dual creation of social value and operational efficiency. This study links CSV research with e-commerce logistics, informatics and service science, and provides practical insights for e-commerce platform managers to optimize social responsibility strategies, integrate CSV into digital service ecosystem governance, and enhance long-term customer retention and brand competitiveness.

Keywords: Creating Shared Value; Customer Satisfaction; Customer Retention; Pinduoduo; E-commerce Industry; PLS-SEM

1. Introduction

Over the past decade, the e-commerce industry has experienced explosive growth, reshaping global consumption patterns and market competition dynamics (Gupta et al., 2023). As a leading e-commerce platform in China, Pinduoduo has rapidly expanded its market share through innovative models such as "group buying" and "direct agricultural product supply," becoming a core infrastructure connecting hundreds of millions of consumers, small and medium-sized merchants, and rural producers (R. Li et al., 2023).

A series of Pinduoduo's practices oriented toward creating shared value have become a key driver of its sustainable development. By adhering to the principles of Environmental, Social, and Governance (ESG), the company has advanced its sustainable growth. Its "agricultural products uplink" model effectively shortens the supply chain between rural producers and urban consumers, ensuring farmers' incomes while providing users with cost-effective products, embodying social responsibility and shared value creation (Y. Li & Zhu, n.d.). According to Pinduoduo's third-quarter financial report, total revenue in the third quarter reached approximately 108.3 billion yuan (15.2 billion US dollars), a year-on-year increase of 9% (PDD Holdings Inc. (Form: 6-K, Received: 11/18/2025 09:28:02), n.d.). The growth in sales volume is also correlated with the repurchase rate of core users, a data point that highlights the potential link between its value-oriented practices and customer retention.

Modern consumers increasingly value platforms that demonstrate social responsibility, uphold ethical commitments, and align with public value demands (Ferrell et al., 2019). The concept of "Creating Shared Value (CSV)" proposed by (Porter & Kramer, 2011) emphasizes that enterprises can simultaneously enhance their own competitiveness and social well-being by solving social problems, achieving the dual creation of economic and social values. In the context of e-commerce, the practice of creating shared value is reflected in multiple aspects such as fair trading mechanisms, environmental protection initiatives, support for small and medium-sized merchants, inclusive governance, and targeted poverty alleviation (Magro-Montero et al., 2025; Wulfert et al., 2025), all of which are highly consistent with Pinduoduo's core business logic.

Existing research indicates that customer satisfaction is a key psychological bridge between corporate initiatives and customer behavioral loyalty (Islam et al., 2021). Customer satisfaction refers to a customer's subjective evaluation of whether the actual consumption experience meets or exceeds expectations (Ramasamy et al., 2024), while customer retention reflects a customer's willingness to continue using the platform's products or services and resist competitors (Ascarza et al., 2018).

Although existing studies have examined the relationship between corporate social responsibility / creating shared value (CSV) and customer retention on e-commerce platforms, most have focused on general e-commerce or high-end market platforms. They have yet to analyze the intrinsic mechanism through which CSV affects customer retention via customer satisfaction in the unique scenario characterized by the sinking market, social e-commerce, and in-depth integration of agricultural product supply chains. As a leading platform centered on this model, Pinduoduo deeply embeds its CSV practices in scenarios such as agricultural products upward mobility and inclusive consumption, which are fundamentally different from those of traditional e-commerce platforms. This research gap at the intersection of theory and context constitutes the core research entry point of this paper.

To fill this research gap, this study takes Pinduoduo users as the research object and explores the following research questions:

- (1) How does Pinduoduo's Creating Shared Value affect Customer Retention (CR)?
- (2) How does Pinduoduo's Creating Shared Value affect Customer Satisfaction (CS)?
- (3) How does Customer Satisfaction affect Customer Retention?
- (4) Does Customer Satisfaction play a mediating role in the relationship between Creating Shared Value and Customer Retention?

2. Literature Review

2.1 Theoretical Foundation

Social exchange theory further elucidates the impact of value creation on customer behavior. This theory posits that relationships are built upon reciprocal exchange. When customers perceive that a firm contributes positively to society and aligns with their own values, they are more likely to reciprocate with positive attitudes and behaviors, such as developing satisfaction, trust, and consistent patronage (Hassan et al., 2025). Therefore, creating shared value is not merely a corporate-level strategy but also a relational signal that shapes customer perceptions and behavioral intentions (Ham et al., 2020). In the fiercely competitive e-commerce industry, where customer switching costs are low and alternative options are abundant, achieving sustainable customer retention requires far more than just transactional efficiency; it also necessitates value congruence and emotional bonding (Jahan & Sanam, 2024). Based on this, this study employs stakeholder theory and social exchange theory to explain how creating shared value affects customer retention both directly and indirectly through customer satisfaction. Additionally, Service-Dominant Logic (SDL) (Vargo & Lusch, 2014) provides a complementary perspective, framing CSV practices as value co-creation processes in which customers and platforms jointly generate social and economic value, thereby reinforcing satisfaction and long-term retention.

2.2 Creating Shared Value and Customer Retention

Customer retention refers to an enterprise's ability to maintain long-term relationships with customers. Research indicates that high-quality service quality can enhance customers' relationship commitment, thereby promoting customer retention and the establishment of long-term cooperative relationships (Venetis & Ghauri, 2004). In the e-commerce environment, retention is manifested in behaviors such as repeat purchases, platform loyalty, and resistance to switching to competitors (Kumar & Ayodeji, 2021). Existing studies show that customers are more likely to be loyal to enterprises that align with their values and uphold social responsibility.

Creating shared value integrates social and economic benefits into core businesses, strengthening this value congruence (Salonen & Camilleri, 2021). Taking Pinduoduo as an example, its initiatives such as supporting rural farmers, promoting agricultural digitalization, and advancing inclusive consumption have not only improved economic performance but also benefited social welfare. Customers' perceptions of the platform's social responsibility not only directly influence trust but also further foster loyalty by enhancing trust (Chan et al., 2024).

a value-centric differentiation strategy can reduce customers' price sensitivity and strengthen relationship commitment. In highly price-competitive markets, creating shared value can serve as a strategic tool to drive customers beyond mere transactional decisions (Dai, 2025). In addition, CSV initiatives communicate to customers that the platform's interests are congruent with their own and with those of the broader community, thereby establishing an institutional basis for relational commitment that transcends price-based competition. Within Pinduoduo's platform-mediated exchange environment, this stakeholder-value alignment dynamic converts platform-level prosocial perceptions directly into durable retention behavior. Thus, the following hypothesis can be proposed:

H1: In the e-commerce context, creating shared value has a positive impact on customer retention.

2.3 Creating Shared Value and Customer Satisfaction

Customer satisfaction is a holistic evaluation of a firm's performance by customers based on a comparison between their expectations and perceived outcomes (Anderson & Sullivan, 1993). In the digital commerce context, satisfaction is influenced not only by functional factors such as price,

convenience, and service quality but also by emotional and ethical considerations (Elbeltagi & Agag, 2016).

Creating shared value enhances customers' perceived fairness, transparency, and corporate social responsibility, thereby elevating their overall evaluation of the platform (Daood & Menghwar, 2021). When customers perceive that a platform operates responsibly, supports producers, and contributes to social development, they recognize value beyond economic utility. This perception strengthens emotional responses and boosts satisfaction (Monferrer Tirado et al., 2024). Gazi et al (2025) study benefits the services sector, as it improves reliability and efficiency and retention through enhanced customer satisfaction.

Meanwhile, research indicates that creating shared value initiatives can convey a firm's authenticity and long-term commitment, reducing customers' skepticism about the firm's motives (Moreno & Kang, 2020). From the perspective of social exchange theory, this mechanism reflects the trust formation signal identified in the theoretical model: when a platform communicates authentic prosocial commitments through CSV, it reduces information asymmetry and skepticism. In the context of platform-mediated digital ecosystems, this signal operates at both the transactional level and the institutional level, together elevating the customer's holistic evaluation of the platform. Thus, the following hypothesis is proposed:

H2: In the e-commerce context, creating shared value has a positive impact on customer satisfaction.

2.4 Customer Satisfaction and Customer Retention

Customer satisfaction has long been regarded as a key antecedent of customer retention. Satisfied customers are more likely to make repeat purchases, recommend the platform to others, and exhibit loyal behaviors (Wattoo et al., 2025). In the e-commerce context, where consumer switching barriers are extremely low, the importance of satisfaction becomes even more pronounced, as it reduces uncertainty and perceived risk in future transactions (de Sousa Pereira et al., 2025). When customers consistently receive positive experiences, they build trust and confidence in the platform, thereby sustaining the relationship. Furthermore, satisfaction can foster emotional attachment, making customers less sensitive to competitors' promotions or price incentives (Aydinli et al., 2014). Empirical studies in both service and digital commerce domains have confirmed a significant positive association between customer satisfaction and retention (Salamah et al., 2022). From a relational perspective, creating shared value enhances customers' perceptions of overall value and fairness, thereby increasing satisfaction (Baehaqi et al., 2023); and higher satisfaction, in turn, generates stronger retention intentions. In the absence of satisfaction, the impact of creating shared value on retention diminishes, as customers' behavioral intentions are often driven by cumulative evaluative judgments (Al-Nawafah et al., 2022).

Drawing on both stakeholder theory and social exchange theory, this mediation reflects a causal chain: CSV first activates value alignment and trust formation perceptions (stakeholder theory), which elevate customer satisfaction; in turn, accumulated satisfaction generates the reciprocal behavioral obligation that produces retention (social exchange theory). Taking Pinduoduo as an example, its shared value initiatives such as supporting agricultural supply chains and promoting inclusive consumption first optimize customers' overall evaluation of the platform, and this enhanced satisfaction then translates into sustained usage and loyal behaviors.

Therefore, the following hypotheses are proposed:

H3: In the e-commerce context, customer satisfaction is positively correlated with customer retention.

H4: In the e-commerce context, customer satisfaction plays a mediating role in the relationship between creating shared value and customer retention.

2.5 Proposed Research Framework

The following conceptual framework provides a basis for subsequent investigation. This figure illustrates the association between Creating Shared Value (the independent variable) and Customer Retention (the dependent variable), where Customer Satisfaction functions as the mediating variable.

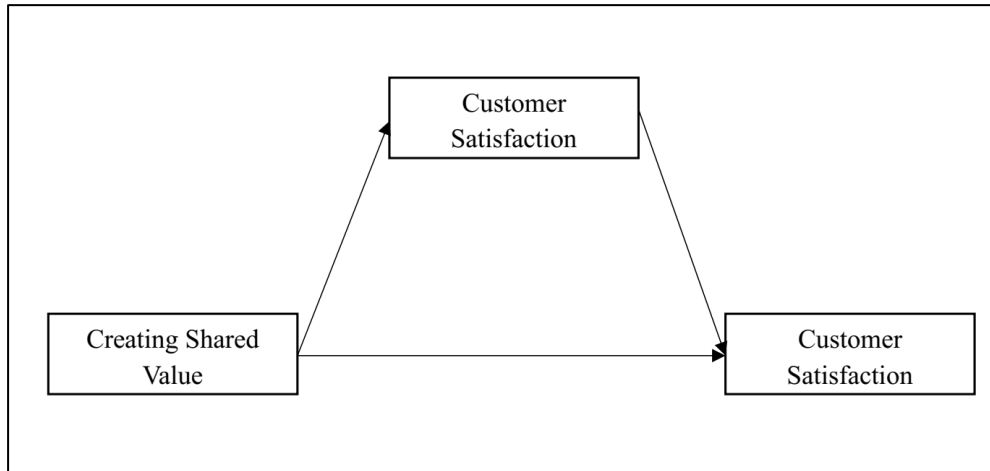


Fig. 1: The Study's Proposed Theoretical Framework

3. Methodology

3.1 Research Approach

This study is conducted based on the positivism paradigm, which measures phenomena through data analysis (Ali, 2024). According to (Mohajan, 2020), quantitative research explains specific phenomena and problems by collecting data in numerical form and applying mathematical procedures for analysis. Given that this study aims to explore the relationships among Creating Shared Value, Customer Satisfaction, and Customer Retention, the quantitative questionnaire survey serves as an appropriate method to verify the research hypotheses and analyze the correlations between variables.

A quantitative, cross-sectional survey design is adopted in this research. It should be noted that cross-sectional data can only reflect the associative relationship between variables at a specific point in time, and cannot infer the causal relationship between CSV, CS and CR. Future research can adopt longitudinal tracking surveys to test the dynamic causal relationship between variables.

3.2 Sampling Procedure

This study adopted the purposive sampling method, a type of non-probability sampling. This method is employed to select specific populations that possess the characteristics required by the researcher (Curtis, 2011). This study to select respondents with at least one shopping experience on Pinduoduo in the past 6 months (the core screening criterion). The recruitment channels included mainstream social media platforms (WeChat, Xiaohongshu, Douyin) and e-commerce consumer groups, which can cover users with different usage frequencies and consumption levels. Ultimately, a total of 309 valid questionnaires were collected after excluding invalid samples (incomplete answers, inconsistent responses). Potential self-selection bias may exist in this study (e.g., users with positive perceptions of Pinduoduo are more willing to participate in the survey), and future research can adopt random sampling to improve the representativeness of samples.

3.3 Instruments

The questionnaire used in this study is divided into four sections. Section A consists of the demographic items of respondents, including gender, age, nationality, ethnicity and academic year. Section B comprises items related to Creating Shared Value (CSV), encompassing economic value, social value,

and environmental value dimensions, adapted from (Ham et al., 2020) and grounded in (Porter & Kramer, 2011) tri-dimensional CSV framework. Section C includes items related to Customer Satisfaction (CS), adapted from (Akil & Ungan, 2022). Finally, Section D contains items related to Customer Retention (CR), adapted from (Ologunibi, 2023).

All scale items were adapted from well-established prior studies in the relevant fields to ensure content validity. All measurement items were rated on a Likert-type scale, ranging from Strongly Disagree to Strongly Agree. To avoid ambiguity and ensure the clarity of the questionnaire, a pilot test was conducted prior to the formal survey. Cronbach's alpha was employed in this study to assess the internal consistency of each construct. In accordance with the criteria proposed by (J. F. Hair, 2014), the value of Cronbach's alpha should exceed 0.7, and the Average Variance Extracted (AVE) should be greater than 0.5.

3.4 Data Analysis

For the data analysis of this study, Partial Least Squares Structural Equation Modeling (PLS-SEM) was adopted in combination with descriptive statistical analysis. PLS-SEM is suitable for handling complex model structures and can simultaneously assess the measurement model and the structural model (J. Hair & Alamer, 2022).

3.5 Common Method Variance

To assess the potential threat of common method variance (CMV), this study adopted the unmeasured latent method construct (ULMC) approach recommended by Liang et al. (2007). As shown in Table 1, we calculated the substantive factor loadings and their squared values $R1^2$, as well as the method factor loadings and their squared values $R2^2$ for each indicator. The results indicate that the average variance explained by the substantive constructs is 77.83%, while the average variance explained by the method factor is only 0.59%. The ratio of substantive variance to method variance is approximately 132:1. Given that the variance explained by the substantive factors is substantially greater than that explained by the method factor, we conclude that common method bias is not a serious concern in this study and is unlikely to confound the interpretations of the results.

Table 1. Results of Common Method Variance Analysis

	substantive Loading	factor $R1^2$	Method Loading	Factor $R2^2$
CR1	0.912	0.831744	-0.028	0.000784
CR2	0.891	0.793881	0.008	0.000064
CR3	0.892	0.795664	-0.012	0.000144
CR4	0.9	0.81	0.029	0.000841
CR5	0.899	0.808201	0.015	0.000225
CR6	0.906	0.820836	-0.07	0.0049
CR7	0.888	0.788544	0.059	0.003481
CS1	0.928	0.861184	0.048	0.002304
CS2	0.918	0.842724	0.037	0.001369
CS3	0.927	0.859329	-0.055	0.003025
CS4	0.923	0.851929	-0.03	0.0009
EV1	0.833	0.693889	-0.216	0.046656
EV2	0.85	0.7225	0.017	0.000289
EV3	0.84	0.7056	-0.074	0.005476
NV1	0.858	0.736164	0.017	0.000289
NV2	0.844	0.712336	-0.039	0.001521
NV3	0.867	0.751689	-0.053	0.002809
SV1	0.867	0.751689	0.096	0.009216
SV2	0.835	0.697225	0.168	0.028224

	substantive Loading	factor	R1 ²	Method Loading	Factor	R2 ²
SV3	0.855		0.731025	0.074		0.005476
Average	0.88165		0.77830765	-0.00045		0.00589965

4 Results And Discussion

4.1 Descriptive Analysis

As shown in Table 2, this research involves a total of 309 samples. In terms of gender distribution, there were 165 male respondents (53.4%), and the remaining 144 were female (46.6%). Regarding age, participants were evenly distributed across age groups, with the 36-45 age group representing the largest portion (18.1%). With respect to education level, the respondents primarily held a Bachelor's degree, accounting for 29.1%. As shown in Table 1, regarding occupation, the largest group consisted of students (16.8%), followed by civil servants (15.5%). In terms of usage frequency, the highest percentage of respondents used Pinduoduo 1-2 times a week, reaching 22%. Finally, regarding the total consumption amount in the past year, the largest group spent between 1001-3000 yuan (20.7%), followed by 501-1000 yuan (18.4%), indicating that users' consumption levels on the platform exhibit a diversified distribution.

Table 2. Respondents' Demographics

Demographics	Frequency	Percentage%
Gender		
Male	165	53.4
Female	144	46.6
Total	309	100
Age		
18 years old and under	51	16.5
19-25 years old	49	15.9
26-35 years old	52	16.8
36-45 years old	56	18.1
46-55 years old	50	16.2
56 years old and over	51	16.5
Total	309	100
Your education level:		
High school and below	72	23.3
College diploma	75	24.3
Bachelor's degree	90	29.1
Master's degree and above	72	23.3
Total	309	100
Your occupation type:		
Student	52	16.8
Enterprise /company staff	43	13.9
Freelancer (e.g., self-employed...)	40	12.9
Civil servant /public institution employee	48	15.5
Professional and technical personnel (e.g., ...)	37	12
Retired personnel	45	14.6
Unemployed /waiting for employment	44	14.2
Total	309	100
How often do you use the Pinduoduo platform?		
Almost every day	63	20.4
3-5 times a week	51	16.5
1-2 times a week	68	22
1-3 times a month	60	19.4
Less than once a month	67	21.7
Total	309	100
Total consumption amount on Pinduoduo in the past year:		

Demographics	Frequency	Percentage%
500 yuan and below	40	12.9
501-1000 yuan	57	18.4
1001-3000 yuan	64	20.7
3001-5000 yuan	50	16.2
5001-10000 yuan	54	17.5
More than 10000 yuan	44	14.2
Total	309	100

4.2 Measurement Model

As shown in Table 3, regarding reliability, the Cronbach’s Alpha values for all constructs ranged from 0.943 to 0.960, and the Composite Reliability (CR) values ranged from 0.959 to 0.967. According to (J. Hair & Alamer, 2022), these values well exceed the recommended threshold of 0.7, indicating excellent internal consistency. Furthermore, the outer loadings for all items ranged from 0.830 to 0.928, all of which are significantly above the 0.708 threshold, demonstrating robust indicator reliability.

regarding convergent validity, the Average Variance Extracted (AVE) was evaluated. The data indicates that the AVE values for all latent variables ranged from 0.722 to 0.854. These results exceed the suggested cutoff of 0.50, implying that the constructs explain more than 50% of the variance of their indicators, thereby confirming satisfactory convergent validity.

Table 3. Summary of Outer Models Loading, and Composite Reliability and Average Variance Extracted

Constructs	Items	Loading	Cronbach's alpha	CR (Composite Reliability)	AVE
Customer Retention(CR)	CR1	0.912	0.96	0.967	0.807
	CR2	0.891			
	CR3	0.892			
	CR4	0.9			
	CR5	0.899			
	CR6	0.905			
	CR7	0.889			
Customer satisfaction(CS)	CS1	0.928	0.943	0.959	0.854
	CS2	0.919			
	CS3	0.926			
	CS4	0.923			
Creating value(CSV)	CSV1	0.83	0.952	0.959	0.722
	CSV2	0.85			
	CSV3	0.838			
	CSV4	0.858			
	CSV5	0.843			
	CSV6	0.866			
	CSV7	0.869			
	CSV8	0.838			
	CSV9	0.857			

4.2.1 Discriminant Validity

The Heterotrait-Monotrait (HTMT) ratio of correlations was considered as the criterion for estimating discriminant validity. According to (Franke & Sarstedt, 2019), the value between constructs should not surpass 0.90 to ensure distinctiveness. Table 4 demonstrates the result for discriminant validity. As shown in the table, the HTMT values range from 0.748 to 0.79, with the highest value being 0.79 (between CSV and CS). Since all the values between constructs were lower than the threshold of 0.90, the discriminant validity was confirmed.

Table 4. Discriminant Validity HTMT

	CR	CS	CSV
CR			
CS	0.775		
CSV	0.748	0.79	

4.2.2 Assessment of Structural Model and Mediation Effects

Based on the direct effect analysis results presented in Table 5, The results of the structural equation modeling (SEM) path analysis indicate that creating shared value (CSV) has a significant positive direct effect on customer retention (CR) ($\beta = 0.372$, $M = 0.371$, $SD = 0.050$, $t = 7.451$, $p < 0.01$, 95% CI [0.271, 0.467]). The model demonstrates good explanatory power ($R^2 = 0.602$, $f^2 = 0.153$). Furthermore, the variance inflation factor (VIF) is 2.288, indicating the absence of severe multicollinearity issues. Therefore, Hypothesis 1 (H1) is supported.

Furthermore, CSV also has a significant positive effect on customer satisfaction (CS) ($\beta = 0.750$, $M = 0.749$, $SD = 0.034$, $t = 22.175$, $p < 0.01$, 95% CI [0.677, 0.808]). This path exhibits strong explanatory power ($R^2 = 0.562$, $f^2 = 1.288$) with a VIF of 1. Hence, Hypothesis 2 (H2) is supported.

Finally, CS also exerts a significant positive effect on CR ($\beta = 0.458$, $M = 0.459$, $SD = 0.048$, $t = 9.461$, $p < 0.01$, 95% CI [0.364, 0.554], $f^2 = 0.232$, VIF = 2.288), providing support for Hypothesis 3 (H3).

The results of the mediation analysis are detailed in Table 6. The results of the bootstrapping mediation analysis indicate that creating shared value (CSV) exerts a significant indirect effect on customer retention (CR) through customer satisfaction (CS) ($\beta = 0.344$, $M = 0.344$, $SD = 0.043$, $t = 8.078$, $p < 0.01$, 95% CI [0.263, 0.429]). Since the confidence interval does not contain zero, the mediating effect of customer satisfaction is established, thereby supporting Hypothesis 4 (H4).

The comprehensive decomposition of effects is presented in Table 7. The total effect of CSV on CR is significant ($\beta = 0.716$, $M = 0.715$, $SD = 0.032$, $t = 22.573$, $p < 0.01$, 95% CI [0.647, 0.773]), comprising a direct effect of $\beta = 0.372$ and an indirect effect of $\beta = 0.344$. The Variance Accounted For (VAF) is 48%, indicating that the indirect effect accounts for nearly half of the total effect. Given that the VAF value falls within the 20% to 80% threshold, it is concluded that customer satisfaction plays a partial mediating role between creating shared value and customer retention.

Table 5. Hypothesis Testing for Direct Effects

Hypothesis	Path	β	(M)	STDEV	T-Value	P	CILL	CIHL	R ²	F ²	VIF
H1	CSV -> CR	0.372	0.371	0.050	7.451	0.000	0.271	0.467	0.602	0.153	2.288
H2	CSV -> CS	0.750	0.749	0.034	22.175	0.000	0.677	0.808	0.562	1.288	1
H3	CS -> CR	0.458	0.459	0.048	9.461	0.000	0.364	0.554		0.232	2.288

Note. CSV = Creating shared value; CS = Customer Satisfaction; CR = Customer Retention; CILL = Lower Limit Confidence Interval; CIHL = Upper Level Confidence Interval; S = Supported; * $p < 0.01$; $p < 0.05$; 1-tailed test

Table 6. Hypothesis Testing for Indirect Effect

Hypothesis	Path	β	(M)	STDEV	T-Value	P	CILL	CIHL
H4	CSV -> CS -> CR	0.344	0.344	0.043	8.078	0.000	0.263	0.429

Note. CSV = Creating shared value; CS = Customer Satisfaction; CR = Customer Retention; CILL = Lower Limit Confidence Interval; CIHL = Upper Level Confidence Interval; S = Supported; * $p < 0.01$; $p < 0.05$; 1-tailed test

Table 7. Direct, Indirect, and Total Effects

DV		β	(M)	STDEV	T-Value	P	CILL	CIHL	VAF
IV	Total effect	0.716	0.715	0.032	22.573	0.000	0.647	0.773	48%
	Direct effect	0.372	0.371	0.050	7.451	0.000	0.271	0.467	
	Indirect effect	0.344	0.344	0.043	8.078	0.000	0.263	0.429	

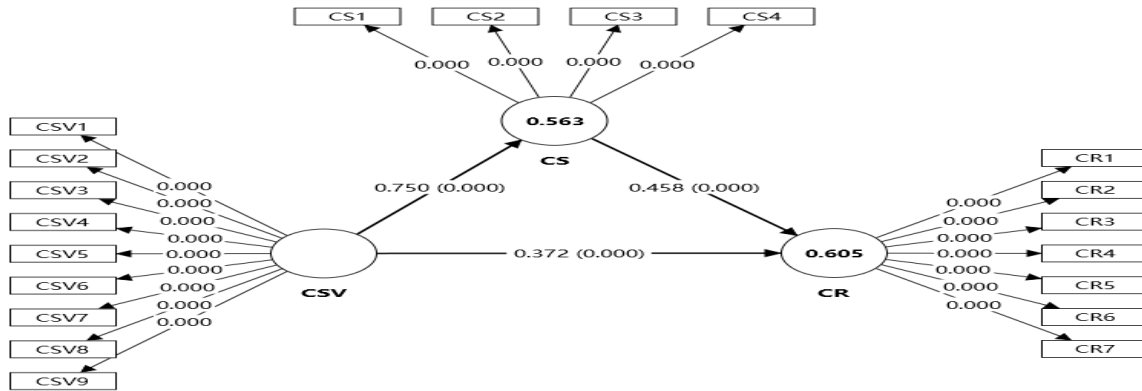


Fig.2: Structural Model

As presented in Table 8, the Q^2 values for all measurement items are greater than zero, indicating that the model possesses predictive relevance. In comparing the RMSE of the PLS-SEM with the Linear Model (LM) benchmark, it was observed that except for item CS1, the remaining 10 indicators exhibited lower prediction errors under the PLS-SEM approach. According to the decision criteria proposed by (Shmueli et al., 2019), the model demonstrates a moderate level of out-of-sample predictive power.

The moderate predictive relevance observed in this study carries meaningful implications for platform managers in competitive digital markets. A moderate Q^2 level suggests that while CSV-based constructs (e.g., customer value, satisfaction, and loyalty) are meaningful predictors of user retention behavior, they do not alone account for the full variance in outcomes — a finding that is both realistic and informative. Specifically, this implies that strategies centered on enhancing customer shared value can reliably forecast retention tendencies to a considerable degree, yet platform managers should recognize that retention behavior is also shaped by contextual factors beyond the model's scope, such as competitive alternatives, switching costs, and platform network effects.

Table 8. PLS Predict

	$Q^2_{predict}$	PLS-SEM RMSE	LM RMSE	PLS-SEM-LM	Interpretation
CR1	0.423	0.627	0.639	-0.012	Moderate
CR2	0.393	0.637	0.65	-0.013	
CR3	0.4	0.612	0.621	-0.009	
CR4	0.424	0.611	0.622	-0.011	
CR5	0.423	0.613	0.627	-0.014	
CR6	0.391	0.615	0.63	-0.015	
CR7	0.415	0.602	0.616	-0.014	
CS1	0.497	0.6	0.598	0.002	Moderate
CS2	0.475	0.597	0.601	-0.004	
CS3	0.458	0.623	0.632	-0.009	
CS4	0.459	0.629	0.641	-0.012	

5. Conclusion

This study takes consumers with shopping experience on Pinduoduo as the research object, and systematically analyzes the interactions among the platform's Creating Shared Value (CSV) practices,

Customer Satisfaction (CS), and Customer Retention (CR). The results show that Customer Satisfaction plays a significant mediating role between the platform's shared value creation and customer retention. Specifically, the shared value initiatives launched by Pinduoduo—such as "agricultural products uplink" and inclusive consumption models—can not only directly enhance the customer retention rate, but also indirectly improve customers' loyalty and willingness to stay by strengthening their overall satisfaction with the platform. All the hypotheses proposed in this study have been effectively supported by empirical data.

5.1 Theoretical Contribution

The findings of this study further enrich the research on value creation and customer behavioral outcomes in the e-commerce context at the academic level, and provide theoretical supplements and expansions in three major aspects.

First, this study extends the incremental explanatory power of Creating Shared Value (CSV) in emerging markets. While extant literature has extensively examined the positive impact of CSR on customer retention, research investigating the direct effect of CSV on customer retention remains nascent and scarce, with the majority of studies focusing primarily on its indirect effects (XING et al., 2025). Furthermore, this study introduces a critically significant and innovative contextual perspective: exploring how enterprises operating in price-sensitive "lower-tier markets" achieve customer retention through the integration of core business operations rather than mere philanthropic profit donation. The empirical results demonstrate that, within the dual context of lower-tier markets and social e-commerce, CSV is not merely a supplementary concept to traditional CSR research. Rather, it reveals a unique underlying mechanism: the profound alignment between corporate business models and societal pain points serves as the pivotal driver in cultivating long-term user stickiness.

Second, this study clearly reveals the transmission mechanism of "Customer Satisfaction," filling the gap in the existing literature that insufficiently explains the internal mechanism of how CSV impacts customer retention. Most previous studies have separately explored the direct impact of corporate social responsibility or shared value on corporate performance, with little attention paid to the critical intermediate link of consumers' psychological evaluation. This study confirms that Customer Satisfaction is a key bridge: only when shared value practices effectively improve the user's satisfaction with the consumption experience can they be maximized into long-term customer retention.

Third, based on the unique attributes of Pinduoduo—a platform characterized by "team purchase" and deep integration with agricultural supply chains—this study integrates classic theories with the local digital consumption scenario in China, and forms conclusions more suitable for the emerging e-commerce market. Unlike previous studies that often focused on premium markets or Western platforms, this research highlights how CSV strategies drive retention in a price-sensitive and highly competitive market environment. The findings provide a more targeted reference perspective for subsequent research on sustainable development and user stickiness on social e-commerce platforms.

5.2 Practical Implications

Based on the empirical findings of this study, practical and feasible guidance can be provided for the operation of the Pinduoduo platform, merchants on the platform, and the overall development of the e-commerce industry, helping the industry achieve the two-way improvement of social value and customer retention. Against the cultural background of China's emphasis on collectivism and the rural revitalization strategy, consumers exhibit higher recognition toward platforms that contribute to rural development and inclusive consumption. The CSV initiatives launched by Pinduoduo, such as supporting rural farmers and promoting the digital transformation of agriculture, are highly consistent with these cultural values. Such value congruence not only helps strengthen users' identification with the platform but also improves user retention.

For Pinduoduo itself, the platform should further deepen its strategic layout of creating shared value, and advance initiatives including “direct supply from origin”, rural revitalization support, and consumer rights protection in a normalized and systematic manner. In daily operations, emphasis should be placed on strengthening consumers’ perception of these practices, enabling them to genuinely perceive Pinduoduo’s efforts in balancing commercial profits and social responsibility, thereby cultivating and consolidating customer satisfaction. Meanwhile, the platform should ensure that these CSV practices effectively improve the shopping experience (e.g., product quality, after-sales service), transforming satisfaction into a core driver of customer retention and realizing the effective conversion from value practices to long-term user stickiness. When investing in CSV initiatives, the platform should balance the cost and operational efficiency, and prioritize low-cost and high-efficiency CSV practices (e.g., optimizing agricultural supply chain transparency through digital technology) to avoid excessive operational costs while realizing social value creation.

For merchants operating on Pinduoduo, especially small and medium-sized enterprises and agricultural producers, business operations can be aligned with the platform’s shared value system. By actively participating in “agricultural products uplink” and ensuring product quality and fair pricing, merchants can build consumer trust by leveraging the platform’s social value reputation. This synergy not only benefits the construction of the platform ecosystem but also enhances merchants’ own customer satisfaction and repurchase rates.

5.3 Limitations and Future Research Directions

Although this study has obtained robust conclusions through empirical analysis, there are still some shortcomings restricted by research conditions and design. These limitations also point out the direction for improvement and expansion in future research.

First, the scope of the research sample is relatively homogeneous. This study only selects consumers with shopping experience on Pinduoduo as the research subjects, and thus the applicability of its findings is limited. The conclusions cannot be directly generalized to other e-commerce platforms. Unlike Pinduoduo, which adopts a social commerce model and targets price-sensitive consumers in lower-tier markets, platforms such as JD.com emphasize logistics efficiency and product authenticity, while Taobao, as a comprehensive e-commerce marketplace, differs significantly in merchant structure and user demographic characteristics. These structural differences indicate that the mechanisms linking Creating Shared Value (CSV), customer satisfaction, and customer retention may vary across platforms. Future research can adopt a multi-platform comparative research design by recruiting users of Pinduoduo, JD.com, and Taobao simultaneously as research samples, to examine whether the causal pathway of “CSV–satisfaction–customer retention” holds across different e-commerce models, and to identify which platform characteristics moderate the strength of the above relationships.

Second, a cross-sectional questionnaire survey is adopted in the research design. This design can only capture consumers’ perceptions of CSV, satisfaction, and retention at a specific point in time. It is impossible to rigorously infer the long-term causal relationship among the three variables through cross-sectional data, nor can it reflect the dynamic characteristics of these perceptions changing over time. Future research can optimize the research design by adopting longitudinal tracking surveys or mixed research methods to test the causal relationship and dynamic changes more rigorously.

Third, this study has certain limitations in the selection of research variables. It only takes customer satisfaction as the mediating variable and does not include other factors that may affect the research conclusions. In the digital ecosystem, the effectiveness of CSV strategies is closely associated with the level of digital trust in platform governance. Recent studies on platform trust highlight that a platform’s transaction security mechanisms and the construction of digital trust are important antecedents that shape customer satisfaction and behavior (Dahal et al., 2025). Therefore, the factor of digital trust should be incorporated into the model in future research. In the meantime, the research model can be further

improved by introducing moderating variables such as demographic characteristics and consumption habits. This will further deepen the research on the relationship between value creation and customer retention on e-commerce platforms, and provide more comprehensive theoretical support for industrial development.

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