

The Effect of Logistics Service Quality on Shopee Customers' Intention to Repurchase in the Mountainous Region of Papua Province, Mediated by Customer Satisfaction

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Keywords:	Abstract
logistics service quality, price fairness, customer satisfaction, loyalty, repurchase intention	Indonesia's rapid e-commerce growth has increased the importance of reliable logistics services, particularly in geographically constrained regions such as Papua Highlands Province, where delivery costs, infrastructure limitations, and service uncertainty may influence online shopping behavior. This study aims to examine the effects of logistics service quality dimensions and price fairness on customer satisfaction, and to assess how customer satisfaction and loyalty influence repurchase intention among Shopee customers. A quantitative, cross-sectional survey design was employed involving 385 respondents selected through purposive sampling. Data were collected using a five-point Likert-scale questionnaire and analyzed using Partial Least Squares Structural Equation Modelling (PLS-SEM) with SmartPLS 4. The results show that Personnel Quality, Information Service Quality and Product Availability, Timeliness, and Price Fairness have significant positive effects on Customer Satisfaction, while Order Accuracy and Quality and Order Efficiency, Discrepancy and Flexibility are not significant. Price Fairness is the strongest predictor of Customer Satisfaction. Customer Satisfaction significantly affects Loyalty and Repurchase Intention, while Loyalty has a strong significant effect on Repurchase Intention. The study concludes that fair pricing, timely delivery, service information quality, and responsive personnel are critical for strengthening satisfaction, loyalty, and repurchase intention among Shopee customers in Papua Highlands under challenging regional logistics conditions.

INTRODUCTION

The development of the digital economy has changed the way Indonesian consumers fulfil consumption needs, compare products, make payments, and interact with service providers. This transformation is driven by continuously expanding internet access: the Indonesian Internet Service Providers Association (APJII, 2024) reported that Indonesia's internet users reached 221,563,479 people in 2024, a penetration rate of 79.5 percent. In the same period, the value of Indonesia's e-commerce transactions rose from around IDR 205.5 trillion in 2019 to IDR 401.1 trillion in 2021, IDR 476.3 trillion in 2022, before falling to IDR 453.75 trillion in 2023 and rising again to IDR 487.01 trillion in 2024. Within this growth, the marketplace model occupies a central

position because it is the primary space where sellers, buyers, payment systems, promotion, and distribution interact; Statistics Indonesia (BPS, 2025) affirms that marketplaces are the main driver of e-commerce because they expand markets, increase transactions, and support business (Cooper & Schindler, 2014) competitiveness, and that businesses using marketplaces tend to earn higher revenue.

Shopee, part of Sea Limited, is one of the most relevant marketplaces to examine in this context. Sea Limited (2019) explains that Shopee was first launched in Singapore in 2015 before expanding to Malaysia, Thailand, Taiwan, Indonesia, Vietnam, and the Philippines, and was designed to fit regional characteristics with an easy, safe, and fast shopping experience supported by strong payment and logistics infrastructure (Al-Mu'ani, 2024). In its more mature stage of development, Sea Limited (2025a) describes Shopee as a mobile- and social-oriented marketplace with integrated payment and logistics infrastructure and comprehensive seller services, and states that Shopee is the largest e-commerce platform in Southeast Asia and Taiwan; in 2024 its gross merchandise value reached US\$100.5 billion with 10.9 billion gross orders. Sea Limited (2025b) further reports that throughout 2024 Shopee focused on three operational priorities improving price competitiveness, improving customer service quality (Ayvaz-Çavdaroglu, 2024), and strengthening the content ecosystem and that end-to-end integration with logistics partners is a key differentiator of Shopee's service quality: nearly half of SPX Express orders in Asia in the fourth quarter of 2024 were delivered within two days of ordering, while logistics cost per order fell year-on-year. These facts show that, at the level of corporate strategy, price and service quality particularly logistics service quality sit at the centre of Shopee's value proposition (Cotarelo et al., 2021).

A preliminary survey conducted by the researcher on 50 Shopee customers in Papua Highlands Province who had made purchases through the platform found that 56% of respondents felt that product delivery was not fast, 54% felt that shipment tracking information was unclear or inaccurate, 50% reported that products did not arrive within the promised time, and 58% stated that products received were not always in good condition. These logistics service problems appear to carry through to satisfaction and repurchase intention: 40% of respondents stated they were not satisfied with their overall shopping experience and 42% stated they did not yet intend to repurchase in the near future. Indrawati and Shaina (2021) found that Social Influence, Hedonic Motivation, Habit, Trust, and Performance Expectancy significantly influence Continuance Intention in using the Shopee application. Indrawati et al. (2024) discussed consumers' intention to buy the next version of a product in the smartphone market as part of the relationship between planned obsolescence and innovation adoption. In addition, 34% of respondents felt that product prices were not fully commensurate with the quality provided, indicating that price fairness not merely nominal price is also a relevant concern. Reviewing the literature that underlies this study, Do et al. (2023) examined Logistics Service Quality and Price Fairness in cross-border e-commerce, Soeharso (2024) examined Customer Satisfaction (Ahlawat, 2021) as a mediator between service quality and repurchase intention in Indonesian online shopping in general, and (Affendi & Keni, 2025) examined Repurchase Intention in the context of e-commerce top-up

services; none of these specifically tests the relationship among logistics service quality, price fairness, customer satisfaction, loyalty (Auliah, 2025), and repurchase intention among Shopee customers in Papua Highlands Province. This gap, combined with the strategic importance of logistics and price fairness for both Shopee and the region, motivates the present study (Antwi, 2021).

Based on the background described above, this study examines the relationships among logistics service quality, price fairness, customer satisfaction, loyalty, and repurchase intention among Shopee customers in Papua Highlands Province. Specifically, the study investigates whether Personnel Quality affects Customer Satisfaction; whether Order Accuracy and Quality affect Customer Satisfaction; whether Order Efficiency, Discrepancy, and Flexibility affect Customer Satisfaction; whether Information Service Quality and Product Availability affect Customer Satisfaction; whether Timeliness affects Customer Satisfaction; and whether Price Fairness affects Customer Satisfaction. Furthermore, this study examines whether Customer Satisfaction affects Customer Loyalty, whether Customer Loyalty affects Repurchase Intention, and whether Customer Satisfaction directly affects Repurchase Intention among Shopee customers in Papua Highlands Province.

In accordance with these research problems, the study aims to analyze the effects of Personnel Quality, Order Accuracy and Quality, Order Efficiency, Discrepancy and Flexibility, Information Service Quality and Product Availability, Timeliness, and Price Fairness on Customer Satisfaction. It also aims to analyze the effect of Customer Satisfaction on Customer Loyalty, the effect of Customer Loyalty on Repurchase Intention, and the direct effect of Customer Satisfaction on Repurchase Intention among Shopee customers in Papua Highlands Province. Through these relationships, the study seeks to provide a comprehensive understanding of how logistics service attributes and perceptions of price fairness contribute to customer behavioral outcomes in an e-commerce environment characterized by geographical and distribution constraints.

Academically, this study is expected to contribute to the development of digital consumer behavior (Dirwan & Latief, 2023) and e-commerce logistics literature by examining Customer Satisfaction and Customer Loyalty as mechanisms linking (Akbar & Tripathi, 2023) logistics service quality dimensions and Price Fairness with Repurchase Intention, particularly in a region characterized by relatively high distribution costs and logistical challenges. The findings may also serve as a reference for future studies examining similar relationships using different variables, research objects, geographical contexts, or analytical approaches. Practically, the study is expected to provide Shopee and its logistics partners with empirical insights into the service attributes that most strongly influence customer satisfaction, including delivery timeliness, order accuracy, service reliability, product availability, and distribution efficiency. The findings may also support the formulation of pricing and transaction-cost strategies that customers perceive as fair, particularly in high-cost logistics areas such as Papua Highlands Province. From a policy perspective, the study may provide useful input for policymakers regarding the importance of logistics infrastructure, connectivity, and distribution efficiency in promoting equitable access to digital commerce services. In addition, the study provides the researcher with practical experience

in conducting quantitative research using survey methods and Partial Least Squares Structural Equation Modeling (PLS-SEM).

METHOD

Research Design

This research was quantitative, combining descriptive and confirmatory purposes: descriptive in providing a systematic picture of Shopee customers' perceptions in Papua Highlands Province, and confirmatory in testing the hypothesised model using inferential statistics (Creswell & Creswell, 2018, 2022; Creswell & Poth, 2023). The study adopts a positivist paradigm and a deductive approach, moving from established theory on logistics service quality, price fairness, satisfaction, and repurchase intention to specific, empirically-testable hypotheses (Sekaran & Bougie, 2020). The full characteristics of the research design are summarised in Table 1.

Table 1 Characteristics of the Research Design

Characteristic	Type
Research purpose	Descriptive and confirmatory
Research paradigm	Positivism
Theory development approach	Deductive
Research methodology	Quantitative
Research strategy	Survey
Unit of analysis	Individual
Researcher involvement	Minimal (non-interference)
Research setting	Non-contrived
Time horizon	Cross-sectional

Source: Data processed by the researcher based on the literature (2026).

Variable Operationalisation

Variables were grouped into exogenous (Personnel Quality, Order Accuracy and Quality, Order Efficiency Discrepancy and Flexibility, Information Service Quality and Product Availability, Timeliness, and Price Fairness), mediating (Customer Satisfaction and Loyalty), and endogenous (Repurchase Intention) constructs. Indicators for each construct were adapted primarily from Leimstoll et al. (2008) and Do et al. (2023) and adjusted to the context of Shopee customers in Papua Highlands Province; each item was measured on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Table 2 summarises the number of indicators used for each construct.

Table 2. Summary of Variable Operationalisation

Construct	Number of Items	Item Codes	Representative Indicator
Personnel Quality (PQ)	5	PQ1–PQ5	Shopee customer-support staff are helpful and easy to reach.
Order Accuracy & Quality (OAQ)	2	OAQ1–OAQ2	Products received match the quantity and quality promised.
Order Efficiency, Discrepancy & Flexibility (OEDF)	3	OEDF1–OEDF3	Orders are processed efficiently and errors are handled well.
Information Service Quality & Product Availability (ISQ)	5	ISQ1–ISQ5	The ordering system is easy to use and information is accurate.
Timeliness (TML)	5	TML1–TML5	Deliveries arrive on the date promised or expected.
Price Fairness (PF)	4	PF1–PF4	Shipping cost is reasonable compared with other platforms.
Customer Satisfaction (CS)	5	CS1–CS5	I am satisfied with the overall service and purchase process.
Loyalty (LOY)	5	LOY1–LOY5	Shopee is my first choice when I need to make a purchase.
Repurchase Intention (RI)	5	RI1–RI5	I intend to continue using Shopee rather than switching.

Source: Instrument adapted from Leimstoll et al. (2008) and Do et al. (2023) (2026).

Population and Sample

The population comprises all Shopee customers domiciled in Papua Highlands Province who have purchased and received deliveries through logistics services integrated with the Shopee platform. Because the exact population size is unknown, the minimum sample size was determined using the Lemeshow formula for populations of unknown size (Lemeshow et al., 1997): $n = Z^2 p(1-p)/d^2$, where $Z = 1.96$ (95% confidence level), $p = 0.50$ (unknown population proportion), and $d = 0.05$ (tolerated error). This yields $n = (1.96^2 \times 0.25)/0.05^2 = 384.16$, rounded to 385. Sampling used non-probability purposive sampling, with respondents required to (1) be Shopee users, (2) be domiciled in Papua Highlands Province, (3) have made a purchase through Shopee, and (4) have received a delivery through a logistics service partnered with Shopee. Data collection yielded exactly 385 valid respondents, meeting the Lemeshow minimum and providing an adequate basis for PLS-SEM analysis, which does not require multivariate normality (Hair et al., 2022b).

Data Collection

Primary data were collected through an online questionnaire distributed via Google Form to Shopee customers in Papua Highlands Province who met the sampling criteria; each closed-ended item used the five-point Likert scale described in Section 3.2. Secondary data drawn from

academic journals, official statistical publications, and institutional reports supported the background, literature review, and framework of the study.

Validity, Reliability, and Analysis Technique

Convergent validity was assessed using outer loadings (recommended ≥ 0.708) and Average Variance Extracted (AVE, recommended ≥ 0.50); discriminant validity was assessed using the Fornell–Larcker criterion and the Heterotrait–Monotrait ratio (HTMT, recommended < 0.90); and construct reliability (Arli, 2024) was assessed using Cronbach's Alpha and Composite Reliability (both recommended ≥ 0.70) (Hair et al., 2022b). The structural model was evaluated using the coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2 via PLSpredict), path coefficients, and the Variance Inflation Factor (VIF), summarised in Table 6. Hypotheses were tested via bootstrapping with 5,000 resamples, with a path considered significant when t-statistic > 1.96 and p-value < 0.05 .

Table 3. Structural Model (Inner Model) Evaluation Criteria

Aspect	Parameter	Criterion
Coefficient of determination	R^2	≥ 0.75 strong; ≥ 0.50 moderate; ≥ 0.25 weak
Effect size	f^2	≥ 0.35 large; ≥ 0.15 medium; ≥ 0.02 small
Predictive relevance	Q^2 (predict)	> 0 indicates predictive relevance
Path significance	p-value	< 0.05 significant
Multicollinearity	VIF	< 5.00 (ideally < 3.3) indicates no multicollinearity

Source: (Chin, 1998) Cohen (1988) and Hair et al. (2022b); (Ghozali, 2021)

RESULTS AND DISCUSSION

Respondent Profile

Data collection reached the target sample of 385 valid respondents ($N = 385$). Table 7 to Table 9 summarise respondent characteristics by generation, gender, income, occupation, purchase frequency, and domicile.

Table 4. Respondent Distribution by Generation and Gender ($N = 385$)

Category	Group	Frequency (f)	Percentage (%)
Generation	Generation Z (17–29 years)	278	72.21
Generation	Millennial (30–45 years)	92	23.90
Generation	Generation X (46–60 years)	15	3.90
Gender	Female	205	53.20
Gender	Male	180	46.80

Source: Primary data processed (2026).

Table 5. Respondent Distribution by Income, Occupation, and Product Category (N = 385)

Category	Group	Frequency (f)	Percentage (%)
Monthly income	< IDR 1,000,000	67	17.4
Monthly income	IDR 1,000,000–3,999,999	16	4.2
Monthly income	IDR 4,000,000–6,999,999	206	53.5
Monthly income	> IDR 7,000,000	96	24.9
Occupation	Private/state-owned enterprise employee	211	54.8
Occupation	Civil servant (ASN)	72	18.7
Occupation	Student	60	15.6
Occupation	Other (self-employed, military/police, housewife, unemployed)	42	10.9
Product category purchased	Fashion	228	59.2
Product category purchased	Electronics	66	17.1
Product category purchased	Health and beauty	46	11.9
Product category purchased	Food and beverage	23	6.0
Product category purchased	Household appliances	22	5.7

Source: Primary data processed (2026).

Table 6. Respondent Distribution by Shopping Frequency and Domicile (N = 385)

Category	Group	Frequency (f)	Percentage (%)
Shopping frequency (last 6 months)	3–6 times	173	44.90
Shopping frequency (last 6 months)	6–9 times	83	21.60
Shopping frequency (last 6 months)	More than 10 times	129	33.50
Domicile (regency)	Jayawijaya	352	91.40
Domicile (regency)	Other seven regencies (combined)	33	8.60

Source: Primary data processed (2026).

Respondents are dominated by Generation Z and Millennials (96.11% combined), are fairly balanced by gender with a slightly higher share of women, and mostly report middle to upper-middle income with stable employment as private/state-owned enterprise staff or civil servants, indicating relatively stable purchasing power. Fashion is the most purchased category, and a third

of respondents shop on Shopee more than ten times in six months, indicating a high level of engagement despite the region's distribution challenges. The concentration of respondents in Jayawijaya Regency (91.4%) is consistent with Jayawijaya's role as the economic, transportation, and logistics hub of Papua Highlands Province.

Descriptive Statistics of Research Variables

Each item was scored on the five-point Likert scale described in Section 3.2 and converted to a percentage of the maximum possible score ($385 \times 5 = 1,925$), then interpreted using five equal-width categories: 20.00–36.00% strongly disagree, 36.01–52.00% disagree, 52.01–68.00% neutral, 68.01–84.00% agree, and 84.01–100.00% strongly agree. Table 10 presents the mean and percentage score for each research variable.

Table 7. Recapitulation of Mean Scores for All Research Variables

Variable	Mean	Percentage (%)	Category
Personnel Quality (PQ)	4.15	82.97	Agree (Good)
Order Accuracy & Quality (OAQ)	4.29	85.80	Strongly Agree (Very Good)
Order Efficiency, Discrepancy & Flexibility (OEDF)	4.09	81.77	Agree (Good)
Information Service Quality & Product Availability (ISQ)	4.20	84.00	Strongly Agree (Very Good)
Timeliness (TML)	4.11	82.20	Agree (Good)
Price Fairness (PF)	4.18	83.59	Agree (Good)
Customer Satisfaction (CS)	4.21	84.13	Strongly Agree (Very Good)
Loyalty (LOY)	4.15	82.98	Agree (Good)
Repurchase Intention (RI)	4.17	83.38	Agree (Good)

Source: Primary data processed (2026).

All nine variables score above 4.00 on the five-point scale (range 4.09–4.29; 81.77–85.80%), indicating that respondents generally hold favorable perceptions across constructs. Order Accuracy & Quality received the highest mean (4.29), suggesting that despite the region's distribution challenges, product quantity and quality upon receipt are perceived very positively, while Order Efficiency, Discrepancy & Flexibility received the lowest mean (4.09), suggesting comparatively more room for improvement in order-processing speed and error handling.

Measurement Model (Outer Model)

Convergent validity was evaluated using outer loadings and AVE. All 42 indicators loaded above the recommended minimum of 0.70, ranging from 0.700 (ISQ2) to 0.895 (OAQ2), confirming that no indicator required elimination. AVE values for all nine constructs exceeded the

0.50 threshold, ranging from 0.549 (Information Service Quality & Product Availability) to 0.742 (Order Accuracy & Quality), as summarised in Table 8.

Table 8. Convergent Validity and Reliability of the Measurement Model

Construct	Outer Loading Range	AVE	Cronbach's Alpha	Composite Reliability	Conclusion
Customer Satisfaction (CS)	0.708–0.790	0.565	0.807	0.867	Valid & reliable
Information Service Quality & Product Availability (ISQ)	0.700–0.804	0.549	0.795	0.859	Valid & reliable
Loyalty (LOY)	0.768–0.827	0.630	0.853	0.895	Valid & reliable
Order Accuracy & Quality (OAQ)	0.826–0.895	0.742	0.656*	0.851	Valid & reliable
Order Efficiency, Discrepancy & Flexibility (OEDF)	0.737–0.821	0.626	0.704	0.834	Valid & reliable
Personnel Quality (PQ)	0.708–0.798	0.555	0.799	0.861	Valid & reliable
Price Fairness (PF)	0.750–0.786	0.596	0.774	0.855	Valid & reliable
Repurchase Intention (RI)	0.772–0.845	0.657	0.869	0.905	Valid & reliable
Timeliness (TML)	0.719–0.788	0.579	0.818	0.873	Valid & reliable

Source: Data processed using SmartPLS 4 (2026). *Below the 0.70 rule of thumb, but the corresponding Composite Reliability (0.851) confirms adequate reliability (Hair, J. F. et al., 2017; Sarstedt et al., 2021)

Discriminant validity was confirmed using the Fornell–Larcker criterion: the square root of each construct's AVE exceeded its correlation with every other construct (e.g., Customer Satisfaction's $\sqrt{\text{AVE}} = 0.752$, exceeding its highest inter-construct correlation of 0.768 with Loyalty by a narrow margin, with all other constructs showing a clearer margin). Under the stricter HTMT criterion (< 0.90), most construct pairs met the threshold, though four pairs Customer Satisfaction with Loyalty (0.922), Information Service Quality & Product Availability with Order Efficiency, Discrepancy & Flexibility (0.932), Order Efficiency, Discrepancy & Flexibility with Timeliness (0.910), and Order Accuracy & Quality with Personnel Quality (0.899, marginal) exceeded or closely approached it, reflecting a conceptually expected closeness among related logistics-service dimensions. Because the Fornell–Larcker criterion was satisfied for all constructs, the measurement model was retained for structural model testing, with this HTMT proximity noted as a limitation. All indicator VIF values ranged from 1.312 to 2.300, well below the 5.00 threshold, indicating no multicollinearity problem among indicators.

Structural Model (Inner Model)

Table 9. Coefficient of Determination (R^2) and Predictive Relevance (Q^2)

Endogenous Variable	R^2	Adjusted R^2	R^2 Category	Q^2 (predict)	Q^2 Category
Customer Satisfaction (CS)	0.539	0.531	Moderate	0.509	Predictive relevance
Loyalty (LOY)	0.590	0.588	Moderate	0.381	Predictive relevance
Repurchase Intention (RI)	0.598	0.596	Moderate	0.316	Predictive relevance

Source: Data processed using SmartPLS 4 (2026).

All three endogenous constructs show moderate explanatory power (R^2 between 0.50 and 0.75) and positive predictive relevance ($Q^2 > 0$), indicating that the model both explains and predicts customer satisfaction, loyalty, and repurchase intention reasonably well; the six exogenous constructs jointly explain 53.9% of the variance in Customer Satisfaction, which together with Loyalty explains 59.8% of the variance in Repurchase Intention.

Table 10. Path Coefficients and Effect Size (f^2)

Relationship	Path Coefficient	Direction	f^2	Effect Size
Personnel Quality → Customer Satisfaction	0.210	Positive	0.041	Small
Order Accuracy & Quality → Customer Satisfaction	-0.070	Negative	0.005	Very small
Order Efficiency, Discrepancy & Flexibility → Customer Satisfaction	-0.087	Negative	0.006	Very small
Information Service Quality & Product Availability → Customer Satisfaction	0.181	Positive	0.026	Small
Timeliness → Customer Satisfaction	0.193	Positive	0.029	Small
Price Fairness → Customer Satisfaction	0.401	Positive	0.149	Small (near medium)
Customer Satisfaction → Loyalty	0.768	Positive	1.436	Large
Loyalty → Repurchase Intention	0.606	Positive	0.375	Large
Customer Satisfaction → Repurchase Intention	0.204	Positive	0.042	Small

Source: Data processed using SmartPLS 4 (2026).

Price Fairness is the strongest driver of Customer Satisfaction among the six exogenous constructs ($\beta = 0.401$), followed by Personnel Quality ($\beta = 0.210$), Timeliness ($\beta = 0.193$), and Information Service Quality & Product Availability ($\beta = 0.181$); Order Accuracy & Quality and Order Efficiency, Discrepancy & Flexibility show small negative coefficients, whose significance is assessed formally through bootstrapping in Section 4.5. Customer Satisfaction is a very strong driver of Loyalty ($\beta = 0.768$, $f^2 = 1.436$, a large effect), and Loyalty is in turn a strong driver of

Repurchase Intention ($\beta = 0.606$, a large effect), exceeding the direct effect of Customer Satisfaction on Repurchase Intention ($\beta = 0.204$, a small effect). All indicator VIF values (1.312–2.300, Section 4.3) confirm the structural model is free of multicollinearity.

Hypothesis Testing

Hypotheses were tested through bootstrapping with 5,000 resamples in SmartPLS 4; a path is considered significant when $t\text{-statistic} > 1.96$ and $p\text{-value} < 0.05$. Results are presented in Table 11.

Table 11. Hypothesis Testing Results (Direct Effects)

Hyp.	Relationship	Original Sample (O)	T-Statistics	P-Values	Decision
H1	Personnel Quality → Customer Satisfaction	0.210	2.902	0.004	Supported
H2	Order Accuracy & Quality → Customer Satisfaction	-0.070	1.033	0.302	Not supported
H3	Order Efficiency, Discrepancy & Flexibility → Customer Satisfaction	-0.087	1.331	0.183	Not supported
H4	Information Service Quality & Product Availability → Customer Satisfaction	0.181	2.717	0.007	Supported
H5	Timeliness → Customer Satisfaction	0.193	2.724	0.006	Supported
H6	Price Fairness → Customer Satisfaction	0.401	5.758	0.000	Supported
H7	Customer Satisfaction → Loyalty	0.768	25.942	0.000	Supported
H8	Loyalty → Repurchase Intention	0.606	8.663	0.000	Supported
H9	Customer Satisfaction → Repurchase Intention	0.204	2.757	0.006	Supported

Source: Data processed using SmartPLS 4 (2026).

Of the nine hypotheses, seven are supported and two are not supported. Price Fairness (H6) shows the strongest significant positive effect on Customer Satisfaction, followed by Personnel Quality (H1), Timeliness (H5), and Information Service Quality & Product Availability (H4). Order Accuracy & Quality (H2) and Order Efficiency, Discrepancy & Flexibility (H3) are not statistically significant. Customer Satisfaction significantly and strongly affects Loyalty (H7), Loyalty significantly affects Repurchase Intention (H8), and Customer Satisfaction also directly and significantly affects Repurchase Intention (H9), though with a smaller coefficient than the Loyalty–Repurchase Intention path.

The finding that Personnel Quality positively and significantly affects Customer Satisfaction (H1 supported) is consistent with (Akıl & Urgan, 2022) and Sann et al. (2024), who show that professionalism and responsiveness of logistics-related personnel meaningfully shape customer evaluations, particularly when customers face uncertainty during delivery a condition amplified in a geographically challenging region such as Papua Highlands, where customers may rely more heavily on responsive customer-support staff when problems arise.

Order Accuracy & Quality (H2) and Order Efficiency, Discrepancy & Flexibility (H3) were not found to significantly affect Customer Satisfaction. This mirrors Rashid and Rasheed's (2023) observation that not every LSQ dimension is uniformly significant across contexts, and is consistent with Ramadhani et al. (2025), who found that certain LSQ indicators are not significant in regions with limited infrastructure. A plausible explanation is that, in Papua Highlands, accurate order fulfilment functions as a baseline expectation rather than a differentiator: because respondents already rate OAQ very highly on average (Table 10, mean 4.29), further variation in this already high-performing dimension may add comparatively little to differences in satisfaction, consistent with Do et al.'s (2023) observation that in cross-regional transactions, where baseline expectations for accuracy are already tempered by known distribution risk, accurately-fulfilled orders confirm rather than elevate an already-anticipated outcome.

Information Service Quality & Product Availability (H4) and Timeliness (H5) both positively and significantly affect Customer Satisfaction, aligning with Do et al. (2023), Tedjakusuma et al. (2024), and Sann et al. (2024). In a region highly dependent on-air transport for distribution (Section 1), clear, accurate, and timely information about order status, together with delivery that meets the promised schedule, appears to substantially reduce the uncertainty customers face and thereby raise satisfaction.

Price Fairness (H6) is the strongest predictor of Customer Satisfaction in this model, consistent with Graciola et al. (2022) and Do et al. (2022), and directly echoes the preliminary survey finding that 34% of respondents felt price was not fully commensurate with quality received. In a high-shipping-cost region such as Papua Highlands, the perceived fairness of the total cost not merely the nominal price appears to be the single most influential lever available to Shopee and its logistics partners for improving customer satisfaction.

Customer Satisfaction strongly and significantly predicts Loyalty (H7, the largest effect size in the model), consistent with (Ahmed, 2023) and Akil and Ungan (2022), confirming that satisfied customers develop a durable preference for the platform. Loyalty in turn significantly predicts Repurchase Intention (H8) with a larger effect than the direct path from Customer Satisfaction to Repurchase Intention (H9), consistent with Saura et al. (2022) and Ahmed et al. (2023). The relationship between Purchase Intention and Brand Loyalty is also supported by Rachmawati and Nazhifah (2025), who found that Purchase Intention has a substantial relationship with Brand Loyalty: while satisfaction alone can prompt customers to return, an established sense of loyalty preference, reduced switching consideration, and willingness to recommend more strongly sustains repurchase behaviour. This pattern suggests that converting satisfaction into loyalty, rather than relying on satisfaction alone, is the more effective route to sustained repurchase intention among Shopee customers in Papua Highlands Province.

CONCLUSION

This study concluded that, among Shopee customers in Papua Highlands Province, Personnel Quality, Information Service Quality and Product Availability, Timeliness, and Price Fairness each have a positive and significant effect on Customer Satisfaction, while Order

Accuracy and Quality and Order Efficiency, Discrepancy and Flexibility do not; Price Fairness is the strongest driver of satisfaction, indicating that perceived fairness of shipping cost and total transaction cost matters more to customers in this geographically challenging region than any single logistics-performance attribute. Customer Satisfaction, in turn, has a strong positive effect on Loyalty and a smaller but still significant direct effect on Repurchase Intention, while Loyalty has the strongest overall effect on Repurchase Intention, confirming that satisfaction chiefly drives repurchase behavior by first building loyalty rather than acting alone. Practically, Shopee and its logistics partners should prioritise maintaining competitive and transparent pricing including shipping subsidies, vouchers, cashback, and discount programmes for Papua Highlands customers while continuing to invest in customer-support training, the accuracy and timeliness of order-status information, and delivery reliability given the region's geographic and infrastructural constraints; membership programmes, loyalty points, and personalised promotions are recommended to convert satisfaction into durable loyalty, and baseline standards for order accuracy and discrepancy handling should still be maintained even though they were not significant predictors in this model, since they remain a foundation of service credibility. Theoretically, future research should extend this model with additional constructs such as trust, perceived value, e-service quality, customer experience, or brand image; replicate the model on other e-commerce platforms and in other Indonesian provinces, particularly those with comparable geographic constraints, for comparative purposes; and consider complementary analytical techniques such as Multi-Group Analysis, Importance-Performance Map Analysis, or Covariance-Based Structural Equation Modelling to deepen understanding of the relationships identified here.

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