

TRUST AS A MEDIATOR BETWEEN SERVICE QUALITY AND CUSTOMER SATISFACTION: EVIDENCE FROM COURIER SERVICES IN SURABAYA AND SIDOARJO

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Abstract

Objective – This study aims to examine the effect of service quality on customer satisfaction, with trust as a mediating variable, in the context of JNE courier services in Surabaya and Sidoarjo.

Design/methodology/approach – The study adopts a quantitative research approach using survey data collected from 121 respondents who have previously used JNE courier services. Data were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) to test both direct and mediating relationships among the variables.

Findings – The results indicate that service quality has a positive and significant effect on customer satisfaction. Trust also shows a direct and significant influence on customer satisfaction. However, trust does not significantly mediate the relationship between service quality and customer satisfaction. These findings suggest that customer satisfaction in the courier service context is primarily driven by direct evaluations of service performance rather than relational or psychological mechanisms.

Research limitations/implications – This study is limited by its relatively small sample size and its focus on a single courier service provider within two geographic areas, which may restrict the generalizability of the findings. Additionally, the study only examines trust as a mediating variable, leaving other potential mediators unexplored.

Originality/value – This study contributes to the service quality and customer satisfaction literature by providing empirical evidence from Indonesia's logistics sector.

INTRODUCTION

Indonesia's logistics industry has expanded rapidly in recent years, driven by the growth of e-commerce and the wider adoption of digital technologies that shift consumer purchases from offline to online channels. This transformation has increased the strategic role of courier services in last-mile delivery while intensifying pressure on speed, reliability, and transparency. In a highly competitive market, maintaining customer satisfaction is essential for sustainability (Aydin & Özer, 2005; Benaglia et al., 2024).

Service quality is a crucial determinant of customer satisfaction and loyalty (Parasuraman et al., 1988; Cronin & Taylor, 1992). In courier services, service quality is commonly reflected in delivery timeliness, parcel integrity, responsiveness to complaints, and the accuracy of information delivered through tracking and customer support (Rabinovich & Bailey, 2004; Rao et al., 2011; Olsson et al., 2023). In Indonesia, courier providers—including JNE—face operational challenges such as delivery delays during peak periods, service failures, and intense competition, which make digital visibility and fast service recovery increasingly important (Tohir & Satritama, 2023). Technology-enabled order tracking and proactive notifications can strengthen perceived transparency and improve customer evaluations when the information is reliable (Aktürk et al., 2022; Olsson et al., 2023; Parasuraman et al., 2005; DeLone & McLean, 2003).

Trust is particularly salient in logistics because customers relinquish control over their parcels and accept service risk. Building on Expectation-Disconfirmation Theory, repeated confirmation of expectations through reliable service encounters can foster trust as a relational outcome, which then enhances satisfaction by reducing perceived risk and uncertainty (Oliver & DeSarbo, 1988; Morgan & Hunt, 1994; McKnight et al., 2002; Gefen et al., 2003; Pavlou, 2003). Evidence in courier and delivery service contexts also indicates that operational reliability and digital transparency (e.g., accurate tracking) contribute to trust formation and post-purchase evaluations (Ejdys & Gulc, 2020; German et al., 2022; Aktürk et al., 2022). However, findings on trust as a mediator between service quality and satisfaction remain inconsistent across contexts, suggesting the mediating mechanism may depend on service risk, customer experience maturity, and digital literacy (Taufiq-Hail et al., 2023; Umaamah, 2020; Oktaviani & Millanyani, 2024).

JNE, as one of Indonesia's leading courier firms, must continuously enhance operational efficiency and digital transparency—particularly the accuracy of tracking information and the responsiveness of customer support—to strengthen customer confidence in a highly competitive market (Tohir & Satritama, 2023; Aktürk et al., 2022; Parasuraman et al., 2005; DeLone & McLean, 2003; McKnight et al., 2002; Gefen et al., 2003; Pavlou, 2003). Recent evidence in courier and delivery service contexts also indicates that digital visibility and reliable information flows improve customer evaluations, trust, and overall satisfaction (Ejdys & Gulc, 2020; Olsson et al., 2023).

Although prior research consistently reports a positive direct relationship between service quality and customer satisfaction, the role of trust as a mediating mechanism remains empirically inconsistent across service contexts (Taufiq-Hail et al., 2023). This limitation is particularly apparent in Indonesia, where research on trust-based mediation has predominantly focused on banking, retail, and transportation, while the courier sector remains relatively underexplored despite its growing economic relevance and increasing reliance on digital service interfaces.

Accordingly, this study examines the influence of service quality on customer satisfaction, with trust as a mediating variable, among users of JNE courier services in Surabaya and Sidoarjo. The findings are expected to enrich the theoretical discussion on customer relationship management in service-intensive logistics and to provide practical implications for courier providers in enhancing service quality, strengthening customer trust, and fostering sustainable satisfaction and loyalty within Indonesia's

rapidly evolving logistics industry.

THEORETICAL BACKGROUND AND RESEARCH MODEL

From a theoretical standpoint, Expectation–Disconfirmation Theory (EDT) explains customer satisfaction as the result of a cognitive comparison between prior expectations and perceived performance (Oliver, 1980). When performance meets or exceeds expectations, positive disconfirmation occurs, leading to satisfaction. In service settings characterized by uncertainty, EDT also implies a relational learning process: repeated positive disconfirmation reduces perceived risk and gradually develops trust in the provider (Oliver & DeSarbo, 1988). In logistics and last-mile delivery, customers evaluate outcomes such as delivery timeliness, parcel condition, and information accuracy against promised service levels and tracking updates; therefore, consistent confirmation of expectations can strengthen both satisfaction and trust (Ejdys & Gulc, 2020; Olsson et al., 2023).

EDT has been widely applied in industries such as banking, e-commerce, hospitality, and transportation to explain how service quality simultaneously reinforces satisfaction and trust (Oliver, 1980; Cronin & Taylor, 1992). These industries share characteristics with courier services—service intangibility, high customer involvement, and dependence on reliable performance. In Indonesia’s courier market, customers are exposed to service risks such as delivery delays, damaged parcels, and information asymmetry, making trust a critical mechanism through which service quality can translate into satisfaction, especially when digital touchpoints (tracking, notifications, customer service channels) shape expectations and evaluations (Tohir & Satritama, 2023; Aktürk et al., 2022; Parasuraman et al., 2005; DeLone & McLean, 2003; McKnight et al., 2002; Gefen et al., 2003; Pavlou, 2003).

Previous studies in other service sectors, such as banking, e-commerce, and digital platforms, have demonstrated that trust often functions as an intermediate mechanism linking service performance to satisfaction (Rao et al., 2011; Benaglia et al., 2024). These findings suggest that customers do not evaluate satisfaction solely based on technical performance but also on relational confidence developed through repeated service interactions. However, empirical evidence applying EDT to trust formation in Indonesia’s courier service sector remains limited, highlighting the need for further investigation.

Service Quality

Service quality refers to a firm’s ability to deliver services that consistently meet or exceed customer expectations across multiple dimensions, including reliability, responsiveness, assurance, empathy, and tangibility (Parasuraman et al., 1988). In service-dominant industries, high service quality has been shown to enhance perceived value and customer satisfaction (Cronin & Taylor, 1992; Bitner et al., 2020). Within the logistics and courier service context, service quality is reflected in consistent service performance, delivery timeliness, effective complaint handling, responsiveness to customer inquiries, and the professionalism of delivery personnel (Rabinovich & Bailey, 2004; Rao et al., 2011; Olsson et al., 2023; Uzir et al., 2021b). Couriers who provide accurate, responsive, and courteous service strengthen customers’ perceptions of reliability and care, thereby supporting satisfaction and the development of trust.

H1: Service Quality has a positive and significant effect on Customer Satisfaction.

Trust

Trust is defined as the willingness to rely on a service provider based on confidence in its reliability and integrity (Morgan & Hunt, 1994). In logistics and courier services, trust is typically developed through consistent delivery performance, secure handling of shipments, transparent problem resolution, and dependable digital information (e.g., accurate tracking) that reduces information asymmetry (Ejdys & Gulc, 2020; German et al., 2022; Aktürk et al., 2022). By lowering perceived risk and uncertainty, trust provides psychological assurance and supports longer-term customer relationships.

H2: Trust has a positive and significant effect on Customer Satisfaction.

Customer Satisfaction and the Mediating Role of Trust

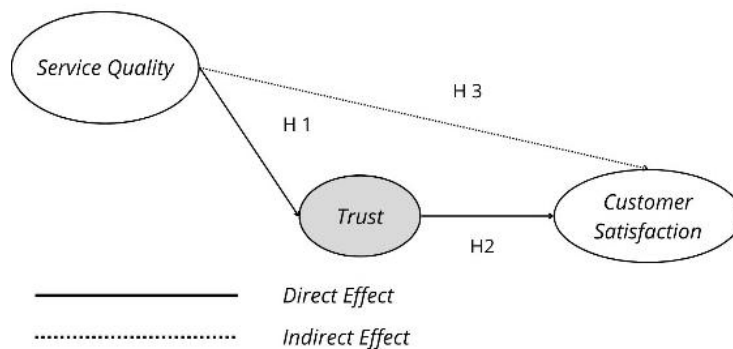
Customer satisfaction is defined as the psychological outcome of comparing expectations with

perceived service performance (Oliver, 1980). In courier services, satisfaction is largely determined by delivery timeliness, delivery accuracy, service recovery, and communication effectiveness—especially the consistency of information provided to customers during the delivery process (Rao et al., 2011; Uvet, 2020; Do et al., 2023; Aljohani, 2024; Olsson et al., 2023).

While service quality directly contributes to customer satisfaction, trust can also operate as an intervening psychological mechanism that reinforces this relationship. In courier services, customers depend on the provider to manage time-sensitive and valuable shipments; thus, transparent digital information and consistent delivery performance can reduce perceived risk and strengthen trust, which may enhance satisfaction (Oliver & DeSarbo, 1988; Ejdy & Gulc, 2020; Aktürk et al., 2022).

Given these mixed findings, particularly the limited evidence from Indonesia's courier service sector, this study examines whether trust significantly mediates the relationship between service quality and customer satisfaction in the context of JNE courier services.

H3: Trust mediates the relationship between Service Quality and Customer Satisfaction.



Source: Researcher Design

Figure 1. RESEARCH THINKING FRAMEWORK

The respondents in this study consisted of 121 individuals who had previously used JNE delivery services in Surabaya and Sidoarjo and participated in the survey. The distribution of respondents is as follows: Gender: The majority (76.9%) were female, while 23.1% were male. Age: Most respondents (72.7%) were aged between 17 and 25 years, followed by 21.5% aged 26–35 years, 5% aged 36–45 years, and 0.8% aged above 45 years. Occupation: The majority (63.6%) were students, followed by employees (25.6%), entrepreneurs (8.3%), and other occupations (2.4%). Type of JNE Service Used: Most respondents (74.4%) used Regular (REG) delivery services, followed by Economical Shipping (OKE) at 13.2%, Next Day Delivery (YES) at 7.4%, and JNE Trucking (JTR) at 5%.

Tabel 1.
RESPONDENT CHARACTERISTICS

Category	Sub-category	Frequenscy (n)	Percentage (%)
Gender	Male	28	23,1%
	Female	93	76,9%
Age	17-25 year	88	72,7%
	26-35 year	26	21,5%
	36-45 year	6	5%
	Over 45 year	1	08%
Occupation	Student	77	63,6%

Type of JNE Service Used	Employees	31	25,6%
	Entrepreneurs	10	8,3%
	Other Occupations	3	2,4%
	Used Regular (REG)	90	74,4%
	Economical Shipping (OKE)	16	13,2%
	Next Day Delivery (YES)	9	7,4%
	JNE Trucking (JTR)	6	5%

Source: data processing results from researchers

RESEARCH METHODS

This study employed a quantitative research design using the Structural Equation Modeling–Partial Least Squares (SEM-PLS) approach, which is appropriate for examining predictive relationships among latent variables and mediation effects in relatively small to medium samples (Hair et al., 2014; Sarstedt et al., 2017). Data were collected from 121 respondents who had previously used JNE courier services in Surabaya and Sidoarjo. The analysis was conducted using SmartPLS, with a significance threshold of $p < 0.05$ (Memon et al., 2017).

Primary data were obtained through structured questionnaires distributed to respondents who met predefined eligibility criteria. A purposive non-probability sampling technique was applied to ensure that all participants possessed relevant experience with JNE courier services. The sampling criteria included: (1) respondents aged 17 years or older, (2) residents of Surabaya or Sidoarjo, and (3) individuals who had used JNE delivery services at least once.

The sample size of 121 respondents exceeds common minimum recommendations for PLS-SEM. Besides meeting the frequently cited minimum of 100 observations, the sample is also adequate for the present model, which comprises three latent constructs and a simple mediation structure with a limited number of structural paths, allowing stable parameter estimation and bootstrapping of indirect effects (Hair et al., 2014; Hair et al., 2017; Sarstedt et al., 2017). Nonetheless, because the sampling was purposive and non-probabilistic, the results should be interpreted with caution regarding population inference.

Data analysis followed a two-stage SEM procedure (Anderson & Gerbing, 1988; Uzir et al., 2021a, 2021b). The first stage involved evaluating the measurement (outer) model by assessing indicator reliability, convergent validity, and discriminant validity to ensure the adequacy of the measurement instruments (Henseler et al., 2015; Wong, 2013). The second stage focused on evaluating the structural (inner) model to examine the direct and indirect relationships among variables and to test the proposed hypotheses.

Respondent demographics indicate diversity in gender (69 male; 52 female) and occupation (students, employees, entrepreneurs, and others). However, the sample is dominated by younger customers aged 17–25 years (58.7%), which likely reflects the segment most active in e-commerce and courier usage. This composition may introduce potential sample bias related to higher digital literacy and more intensive use of tracking features, which can shape evaluations of service quality and trust. Therefore, the generalizability of findings to older or less digitally engaged customers should be considered limited, and future studies could apply multi-group analysis or more balanced sampling across age and occupation categories.

ANALYSIS AND RESULTS

OUTER MODEL ANALYSIS

The outer model analysis was employed to assess the relationships between latent variables and their corresponding indicators. The primary objective of this analysis is to evaluate the validity and reliability of the measurement model. The assessment was conducted using several indicators, including convergent validity, construct reliability, Average Variance Extracted (AVE), and discriminant validity.

This evaluation ensures that the indicators consistently and accurately represent the constructs being measured.

Convergen Validity

Convergent validity was assessed using indicator loadings and the average variance extracted (AVE). Following common PLS-SEM guidelines, indicator loadings of 0.70 or higher are preferred, while AVE values should exceed 0.50 to indicate that the construct explains more than half of the variance of its indicators (Hair et al., 2014; Sarstedt et al., 2017).

Tabel 2.
Outer Loading

Indicator	Service Quality (X)	Trust (Z)	Customer Satisfaction (Y)
X1	0.767		
X2	0.559		
X3	0.911		
X4	0.902		
X5	0.641		
X6	0.897		
X7	0.814		
X8	0.712		
X9	0.710		
X10	0.659		
Z1		0.754	
Z2		0.867	
Z3		0.858	
Y1			0.816
Y2			0.908
Y3			0.851

Source: data processing results from researchers

Construct Reliability and Validity

Construct reliability was used to assess the internal consistency of the latent variable constructs. A construct is considered reliable when its reliability value exceeds 0.70, which is equivalent to Cronbach's alpha. According to Memon et al. (2017), internal consistency reliability reflects the extent to which indicators consistently represent the measured latent construct. The instruments used to assess this include composite reliability and Cronbach's alpha. Composite reliability values ranging from 0.60 to 0.70 are considered acceptable (Sarstedt et al., 2017), while Cronbach's alpha values above 0.70 indicate good reliability (Ghozali & Latan, 2015).

Tabel 3.

Construct Reliability and Validity			
Indicator	Cronbach's <i>alpha</i>	Composite reliability (<i>rho_a</i>)	Composite reliability (<i>rho_c</i>)
X	0.918	0.934	0.933
Y	0.823	0.834	0.894
Z	0.771	0.791	0.867

Source: data processing results from researchers

Average Variance Extracted (AVE)

The Average Variance Extracted (AVE) was employed to assess both convergent and discriminant validity. A minimum AVE value of 0.50 indicates that discriminant validity has been achieved. This threshold suggests that the construct is capable of explaining at least 50% of the variance in its indicators (Wong, 2013; Sarstedt et al., 2017).

Tabel 4.
AVE TEST

Variable	AVE
Service Quality	0.587
Trust	0.738
Customer Satisfaction	0.686

Source: data processing results from researchers

Discriminant Validity

Discriminant validity assesses the extent to which a latent construct is truly distinct from other constructs within the model. High discriminant validity indicates that the construct is unique and accurately measures the intended concept. In SmartPLS applications, discriminant validity is commonly evaluated using three approaches: the Fornell–Larcker criterion, cross-loading analysis, and the Heterotrait–Monotrait Ratio (HTMT) (Henseler et al., 2015).

Tabel 5.
Fornell-Larcker Criterion

Variabel	X1	Y	Z
X	0.766		
Y	0.668	0.859	
Z	0.485	0.571	0.828

Source: data processing results from researchers

Cross-loading analysis is another method used to assess discriminant validity by examining the cross-loading values. Discriminant validity is established when the loading value of each item on its corresponding construct is higher than its cross-loadings with other constructs. However, several scholars argue that the Fornell–Larcker criterion and cross-loading methods may lack sensitivity in evaluating discriminant validity. Therefore, the Heterotrait–Monotrait Ratio (HTMT) has been recommended as a more robust alternative for assessing discriminant validity.

Tabel 6.
Cross Loading

Indicator	X	Y	Z
X1	0.767	0.584	0.371
X2	0.559	0.340	0.307
X3	0.911	0.609	0.466
X4	0.902	0.600	0.445
X5	0.641	0.483	0.268
X6	0.897	0.599	0.458
X7	0.814	0.526	0.378
X8	0.712	0.437	0.376
X9	0.710	0.468	0.345
X10	0.659	0.380	0.231
Y1	0.536	0.813	0.401
Y1	0.594	0.906	0.542
Y1	0.588	0.856	0.514
Z1	0.374	0.363	0.753
Z1	0.419	0.482	0.869
Z1	0.412	0.551	0.857

Source: data processing results from researchers

Tabel 7.
Heterotrait-Monotrait Ratio (HTMT)

Variable	X1	Y	Z
X			
Y	0.761		
Z	0.571	0.699	

Source: data processing results from researchers

INNER MODEL ANALYSIS

Hypothesis Testing

To determine whether the proposed hypotheses are accepted or rejected, this study employed a significance level (alpha) of 0.05 or 5%. The relationship between variables is considered significant when the p-value is lower than the predetermined significance threshold ($p < 0.05$). The following are the p-values obtained in this study.

Tabel 8.
Structural Path Analysis (Direct Effect)

Hipotesis	Variabel	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Value
H1	Service Quality -> Customer Satisfaction	0.489	0.490	0.087	5.609	0.000
H2	Trust -> Customer Satisfaction	0.222	0.217	0.089	2.511	0.012

Source: data processing results from researchers

Tabel 9.
Structural Path Analysis (Indirect Effect)

Hipotesis	Variabel	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
H3	Service Quality -> Trust -> Customer Satisfaction	0.077	0.078	0.041	1.885	0.060

Source: data processing results from researchers

DISCUSSION

This study demonstrates that customer satisfaction in the courier service context is driven primarily by customers' direct evaluations of service performance. Timely delivery, parcel integrity, and professional handling by frontline staff signal that the service meets or exceeds prior expectations, consistent with Expectation–Disconfirmation Theory. In last-mile delivery, reliability, timeliness, and information accuracy represent the most salient performance cues; therefore, operational execution becomes the dominant basis for satisfaction judgments. This finding aligns with prior logistics research that consistently identifies service quality as a key determinant of customer satisfaction in performance-oriented service settings (Cronin & Taylor, 1992; Rao et al., 2011; Olsson et al., 2023).

Trust also plays an important role in shaping customer satisfaction by reducing perceived risk and uncertainty during the delivery process. When customers perceive a courier provider as reliable and dependable, they are more likely to interpret minor service disruptions as situational rather than as service failure. This buffering function of trust has been widely reported in logistics and delivery studies, particularly those emphasizing transparency and reliability as foundations of positive post-purchase evaluations (Ejdys & Gulc, 2020; Olsson et al., 2023).

However, the findings indicate that trust does not serve as the primary mechanism through which service quality translates into customer satisfaction. This pattern is consistent with evidence from courier and other standardized service contexts, where satisfaction is largely shaped by immediate functional outcomes rather than by relational processes (Rabinovich & Bailey, 2004; Rao et al., 2011). The utilitarian and transactional nature of courier services implies that customers prioritize concrete outcomes such as speed, accuracy, and safe handling, allowing service quality to influence satisfaction directly without substantially altering trust perceptions. In this sense, service quality functions as an immediate performance signal, whereas trust reflects a more stable belief developed over repeated interactions.

The presence of baseline institutional trust further helps explain the weak mediating role of trust. Established courier brands often benefit from an initial level of trust among customers, particularly frequent e-commerce users familiar with standardized delivery systems. Under such conditions, short-term variations in service performance are more likely to affect satisfaction than to reshape trust, positioning trust as a distal antecedent rather than an intervening mechanism (Ejdys & Gulc, 2020).

Moreover, the growing reliance on digital touchpoints may attenuate the mediating function of trust. Accurate tracking systems, automated notifications, and responsive customer support reduce uncertainty directly by enhancing visibility and perceived control. For digitally literate customers, these features are typically regarded as expected hygiene factors rather than as relational signals that strengthen trust. Consequently, digital transparency can improve satisfaction by lowering anxiety and information asymmetry, even when trust remains unchanged (Parasuraman et al., 2005; DeLone & McLean, 2003; Aktürk et al., 2022; Olsson et al., 2023).

Overall, these findings suggest that trust operates as a parallel driver of customer satisfaction rather than

as a mediating mechanism between service quality and satisfaction in routine courier transactions. This conclusion is consistent with prior studies reporting a non-significant mediating role of trust in comparable service contexts (Umaamah, 2020; Oktaviani & Millanyani, 2024). Trust may become more salient as a mediator under conditions of higher perceived risk, such as high-value or urgent deliveries, or when trust is conceptualized more granularly by distinguishing between cognitive and affective dimensions. Future research is therefore encouraged to explore these boundary conditions and to incorporate additional mechanisms, such as perceived value and service recovery quality, to further clarify when trust functions as an intervening pathway in courier service settings.

Managerial Implications

The findings indicate that service quality is the primary determinant of customer satisfaction in the JNE courier context. Accordingly, JNE can prioritize actionable improvements in (1) operational reliability—strengthening sorting accuracy, route planning, and last-mile execution to reduce delays and misdeliveries (Uvet, 2020; Do et al., 2023; Aljohani, 2024); (2) digital transparency—upgrading technology-enabled tracking so that scans are timely, status updates are consistent across platforms, and customers receive proactive notifications (e.g., estimated delivery time, delivery attempt alerts) through preferred channels such as in-app messages and WhatsApp (Aktürk et al., 2022; Olsson et al., 2023; Parasuraman et al., 2005; DeLone & McLean, 2003); and (3) service recovery—establishing clear service recovery protocols and response time targets (SLA) for complaints, including fast escalation and compensation procedures for damaged or lost parcels. In parallel, continuous frontline training on courtesy, empathy, and problem-solving should be supported by routine post-delivery feedback and service audits to monitor satisfaction trends and identify recurring failure points (Parasuraman et al., 1988; Rao et al., 2011).

CONCLUSIONS

This study aimed to examine the effect of service quality on customer satisfaction, with trust as a mediating variable, among JNE courier service users in Surabaya and Sidoarjo. The findings indicate that both service quality and trust have a positive and significant direct effect on customer satisfaction. However, trust does not significantly mediate the relationship between service quality and customer satisfaction. This result suggests that customer satisfaction in the courier service context is driven primarily by direct evaluations of service performance rather than by the intervening role of trust.

In particular, consistent excellence in delivery timeliness, operational reliability, and employee professionalism emerges as the most decisive factor in shaping customer satisfaction. These findings highlight the utilitarian nature of courier services, where customers prioritize functional service outcomes over relational considerations in routine service interactions.

Managerial and Industry Implications

From a managerial perspective, the results suggest that JNE should continue to prioritize service quality improvements, particularly in delivery accuracy, reliability, and customer service responsiveness. Strengthening digital trust mechanisms—such as accurate real-time tracking, transparent communication during service disruptions, and robust data protection—remains important for sustaining long-term customer relationships, even though trust does not function as a mediating mechanism in driving satisfaction (Parasuraman et al., 2005; DeLone & McLean, 2003; McKnight et al., 2002; Gefen et al., 2003; Pavlou, 2003).

Beyond JNE, these findings offer broader implications for the Indonesian logistics industry. Other courier service providers can benefit from emphasizing operational excellence and service consistency as primary drivers of customer satisfaction. In highly competitive and standardized logistics markets, companies that excel in delivery performance, responsiveness, and service recovery are more likely to retain customers than those relying primarily on brand trust alone. Thus, industry-wide investments in service quality, digital infrastructure, and frontline employee capability are essential for maintaining competitiveness in Indonesia's rapidly growing logistics sector.

Research Limitations

This study has several limitations that should be considered when interpreting the findings. First, the sample consisted of 121 JNE customers in Surabaya and Sidoarjo, with a predominance of younger respondents (17–25 years), which may limit generalizability to older and less digitally engaged customer segments. Second, the cross-sectional design captures perceptions at a single point in time and may not fully reflect how trust evolves through repeated service encounters. Third, although the model focuses on service quality, trust, and satisfaction, customer satisfaction in courier services may also be shaped by other mechanisms such as perceived value, pricing fairness, service recovery quality, perceived risk, and delivery urgency, as well as contextual moderators including digital literacy and frequency of service use (Rao et al., 2011; Uvet, 2020; Do et al., 2023; Aljohani, 2024; Olsson et al., 2023). Future studies could extend the model by incorporating these additional mediators/moderators and conducting multi-group analysis to compare demographic segments, thereby providing a more nuanced explanation of when and why trust functions (or does not function) as a mediator in Indonesia's logistics sector (Hair et al., 2017; Sarstedt et al., 2017).

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