The Influence of Customer Inertia Beliefs in Shaping Loyalty: Evidence from Freight Forwarding Services in Jakarta

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Submitted: **October 27, 2025**

Revised: **October 31, 2025**

Accepted: **January 28, 2026**

Published Online: **January 31, 2026**

ABSTRACT

In the competitive freight forwarding industry, retaining loyal customers has become a critical challenge. With increasingly intense competition in the logistics industry, understanding the determinants of customer loyalty is crucial. This study examines the mediating role of customer inertia beliefs in the relationship between logistics service quality, logistics flexibility, and customer experience on customer loyalty in freight forwarding services. This study used a quantitative approach, collecting data from 300 freight forwarding customers in Jakarta and the surrounding areas through a structured survey. The sampling technique used was Proportional Stratified Random Sampling, and data analysis was performed using the SEM-PLS 4.0 model. The results show that logistics flexibility and customer experience have a direct and significant influence on customer loyalty, while logistics service quality does not have a significant direct influence. However, logistics service quality, logistics flexibility, and customer experience are proven to have a significant influence on customer inertia beliefs. Furthermore, customer inertia beliefs act as a mediating variable in the relationship between these three factors and customer loyalty. These findings indicate that inertia beliefs play a key role in maintaining customer loyalty, even when the direct influence of several factors on loyalty is insignificant.

Keywords*: Customer Experience, Customer Loyalty, Inertial Beliefs, Logistics Flexibility, Logistics Service Quality.*

INTRODUCTION

The history of transportation and logistics dates back to early human civilization, marked by major milestones such as the development of railways in the nineteenth century, the invention of aircraft in 1903, and the introduction of sea containers in 1956. These developments significantly transformed global transportation systems. Today, logistics and supply chain management are viewed as strategic business activities focused on delivering products to the right place at the right time. However, rapid innovation in logistics services supported by advanced information technology has also created challenges in urban freight transportation, often due to limited awareness among policymakers of emerging trends and real market needs, resulting in conflicts between regulations and business demands (Melo et al., 2015; Rai et al., 2017).

Logistics is generally defined as a system for managing the flow of goods, information, and resources efficiently from origin to destination (Bowersox et al., 2013). Its scope now includes supply chain management, warehousing, packaging, distribution, and customer service. Modern consumers demand timely delivery, transparent tracking, and flexible delivery options, encouraging courier companies to adopt technologies such as GPS tracking, warehouse automation, and electric vehicles (Hübner, 2016).

JIMKES

Jurnal Ilmiah Manajemen Kesatuan
Vol. 14 No. 1, 2026
pp. 405-418
IBI Kesatuan
ISSN 2337 – 7860
E-ISSN 2721 – 169X
DOI: 10.37641/jimkes.v14i1.4464

In the modern era, digitalization and automation have positioned logistics as a key driver of economic growth. Technologies such as IoT, AI, and digital supply chain systems have improved efficiency and transparency (Chopra, 2019). International logistics manages cross-border goods movement while considering geography, trade regulations, and cost efficiency (Christopher, 2016). Global courier companies such as DHL, FedEx, and UPS utilize real-time tracking and AI-based analytics to enhance service performance, supported by growing e-commerce demand (World Economic Forum, 2021; DHL 2022).

Despite its growth, international logistics faces challenges such as policy changes and supply chain disruptions, requiring adaptive strategies (Kotler et al., 2019). In Indonesia, the transportation and warehousing sector continues to grow, contributing 6.24% to GDP in 2024, with 19.66% of the population using online courier services (Central Bureau of Statistics, 2019). This growth intensifies competition among freight forwarding and courier companies in the e-commerce era (Yukki, 2022). The number of online consumer transactions and the resulting revenue are expected to increase between 2019 and 2023. Transactions increased from 50 million in 2019 to 130 million in 2023, while revenue rose from USD 1.00 billion to USD 3.00 billion. This trend reflects the rapid growth of e-commerce activity and increasing consumer reliance on online-based transactions and services.

The Top Brand Index (TBI) of courier services in Indonesia for the 2020–2024 period shows significant changes. JNE dominated in 2022 with a TBI of 39.3%, but experienced a sharp decline to 11.5% in 2024. Conversely, J&T showed a very rapid increase, from 21.3% in 2020 to 50.9% in 2024, indicating a shift in customer preferences. Meanwhile, Tiki, Pos Indonesia, and DHL tended to show relatively stable TBI values with small fluctuations (Putra & Seminari, 2025). These findings reflect the dynamics of intense competition and shifts in customer loyalty in the Indonesian courier service industry.

The logistics and freight forwarding industry has experienced rapid growth driven by digital technology development and the expansion of e-commerce activities. According to the Central Bureau of Statistics (2019), the volume of e-commerce shipments in Southeast Asia, including Indonesia, increased by more than 40% between 2020 and 2023. As a result, delivery services have become an integral part of the overall customer experience. However, this growth has not been fully accompanied by improvements in service quality. The Indonesian Logistics Association reports that customer complaints are mainly related to delivery delays (34%), tracking errors (22%), and unresponsive customer service (17%). In addition, 47% of customers have switched courier services due to dissatisfaction, while 59% continue using the same provider, not because they are satisfied, but because they are reluctant to switch.

These conditions indicate that customer loyalty in the freight forwarding industry is influenced not only by functional factors such as delivery speed and accuracy, but also by psychological factors. Field observations reveal several key issues, including inconsistent service quality across regions, limited logistics flexibility in responding to operational changes, fragmented customer experiences, and fragile loyalty that is highly sensitive to price and promotions. The literature also shows mixed findings regarding the relationship between logistics service dimensions and customer loyalty. Previous studies mainly emphasize the effect of Logistics Service Quality (LSQ) on customer satisfaction rather than long-term loyalty (Lin et al., 2020). Similarly, logistics flexibility does not consistently influence loyalty without mediating variables such as satisfaction or inertia (Nur'aini, 2020). Meanwhile, customer loyalty is formed through accumulated emotional experiences rather than single transactions (Huang et al., 2023).

To address this research gap, this study proposes customer inertia belief as a mediating variable. In the context of freight forwarding services, many customers remain with a provider due to habit or convenience rather than satisfaction. Therefore, this study aims to examine the direct and indirect effects of logistics service quality, logistics flexibility, and customer experience on customer loyalty through customer inertia beliefs.

LITERATURE REVIEW & HYPOTHESIS DEVELOPMENT

The Effect of Quality Logistics Services

Logistics service quality is a key performance target for companies because it is directly related to service quality, which is experienced by customers and depends on how well services meet their expectations and needs (Hati & Juliati, 2020). In logistics, service quality is complex, combining customer service interactions with physical distribution processes, so its evaluation involves both operational performance and service delivery throughout shipping. General service quality covers overall customer experience, including communication, responsiveness, and satisfaction, logistics service quality focuses on delivery reliability, timeliness, information accuracy, and order management. Although part of overall service quality, logistics service quality is more technical and operational, reflecting the effectiveness of logistics activities. According to Thai (2013), Logistics Service Quality (LSQ) has five main dimensions: customer focus quality (responding to customer needs), order fulfilment quality (accuracy and reliability of orders), corporate image (company reputation), timeliness (speed and consistency of delivery), and information quality (accuracy and transparency of information). These dimensions shape customers' perceptions and evaluations of logistics performance.

Logistics service quality has been shown to have a positive and significant effect on customer loyalty in logistics service settings, as higher service quality enhances customer satisfaction and increases customers' likelihood to repurchase and remain loyal (Khairi & Cahyadi, 2023). Empirical studies indicate that logistics flexibility enhances customer loyalty by enabling service providers to adapt to customer needs and strengthen relational value (Aygün & Akyüz, 2023). Empirical research shows that logistics service provider flexibility drives key customer loyalty dimensions, retention, service extension, and referrals by allowing tailored services that create competitive advantage and stronger long-term loyalty (Hartmann & De Grahl, 2011). Likewise, positive customer experiences significantly enhance loyalty through emotional attachment and repeated use, with research confirming a strong, positive effect in consumer service contexts (Abidin et al., 2025).

H1: Logistics service quality has a significant effect on customer loyalty.
H2: Logistic flexibility has a significant effect on customer loyalty.
H3: Customer experience has a significant effect on customer loyalty.

The Effect on Customer Inertial Belief

Empirical studies by Gao et al. (2025) show that high service quality can foster habitual purchasing behaviors, key to customer inertia. When customers consistently perceive strong service quality, particularly in e-commerce or services, they tend to stick with their choices, highlighting a positive link between service quality and inertial beliefs. Flexibility is an organization's ability to meet diverse customer expectations efficiently, adapting quickly to change while maintaining operational effectiveness (Lowson, 2002). Conceptually, it includes external flexibility adjusting services to market and customer needs and internal flexibility readiness of systems, resources, and processes to support these adjustments. In logistics, flexibility is crucial due to demand fluctuations, market changes, and potential disruptions. It enables providers to adjust routes, schedules, capacity, and operations without harming performance or cost. Logistics flexibility reflects agility and resilience at both strategic and operational levels, allowing companies to maintain service quality, enhance customer satisfaction, and ensure continuity in a dynamic business environment.

Customer experience, according to Situmorang et al. (2017), is a rational and emotional bond arising from responses to stimuli across sensory, emotional, cognitive, action, and relational dimensions, developing throughout all customer–company interactions rather than a single transaction. Similarly, Gentile et al. (2007) describe it as a series of highly personal interactions that engage customers rationally, emotionally, physically, and spiritually, shaping perceptions, attitudes, and brand awareness. They

identify six key dimensions: sensory (five senses), emotional (feelings), cognitive (thinking and evaluation), pragmatic (functional use), lifestyle (alignment with values), and relational (social interactions), highlighting customer experience as a holistic, multidimensional construct formed through direct and indirect contact points.

H4: Logistics service quality has a significant effect on customer inertial belief.
H5: Logistics flexibility has a significant effect on customer inertial belief.
H6: Customer experience has a significant effect on customer inertial belief.

The Effect of Customer Inertial Belief on Customer Loyalty

Customer loyalty refers to a strong and enduring commitment to continue purchasing or reusing a company's products or services. According to Hati and Juliati (2020), loyalty is reflected not only in repeat purchases but also in customers' intentions to maintain relationships with service providers. In logistics services, loyalty goes beyond transactional repetition, involving emotional attachment and psychological commitment developed through consistent service encounters. Pratama et al. (2024) explain that loyalty is shaped by behavioral intention and emotional attachment, influenced by service quality, customer satisfaction, trust, and switching barriers. Customers remain loyal when they perceive reliable delivery, accurate information, and responsive service, while switching barriers further reinforce this loyalty.

Kotler and Keller (2019) define loyalty as a positive attitude and behavioral tendency toward a brand, leading to long-term engagement and advocacy, where customers recommend the brand to others (Yuliantini et al., 2025). Loyal customers are repeat users and active supporters contributing to long-term business sustainability. Based on these perspectives, customer loyalty is a deep, consistent commitment to a brand or service provider despite situational influences and competitors' efforts (Hasan et al., 2020). In logistics, such loyalty is vital for maintaining stable demand and long-term customer relationships. Empirical research indicates that customer inertia, defined as the tendency to continue previous consumption patterns due to habit, comfort with the status quo, or perceived switching costs, is positively associated with customer loyalty because it reinforces repeat purchasing behavior and resistance to switching brands or services (Pandowo & Mamuaya, 2025)

H7: Customer inertial belief has a significant effect on customer loyalty.

Customer Inertial Belief as a Mediating Variable

Customer inertial belief can act as a mediator between logistics service quality and customer loyalty because habitual tendencies strengthen how quality perceptions are translated into long-term loyalty. Recent research by Sirait et al. (2024) defines customer inertia as a consumer tendency to continue using the same product or service due to habit and comfort with existing choices, highlighting its relevance in behavioral loyalty outcomes where repeated positive experiences reduce switching. This suggests that logistics service quality through reliability, timeliness, and accurate information can increase inertial beliefs, which in turn reinforce customer loyalty by embedding habitual usage and reducing the motivation to switch.

Similarly, customer inertial belief may mediate the relationship between logistics flexibility and customer loyalty, as repeated positive experiences with flexible logistics responses foster resistance to change. When logistics systems adapt successfully to customer needs, such as dynamic scheduling or route adjustments, customers develop inertia, supporting continued patronage (Aisyah & Suharto, 2024). This highlights that logistics flexibility can indirectly enhance loyalty by strengthening habitual engagement and reinforcing comfort with the provider's consistent responsiveness. Empirical evidence shows that customer inertia can mediate the effects of customer satisfaction and repeated positive experiences on loyalty, suggesting that consistent positive interactions strengthen habitual usage patterns and long-term commitment (Amoroso et al., 2017).

H8: Customer inertial belief mediates the relationship between logistics service quality and customer loyalty.
H9: Customer inertial belief mediates the relationship between logistics flexibility and customer loyalty.
H10: Customer inertial belief mediates the relationship between customer experience and customer loyalty.

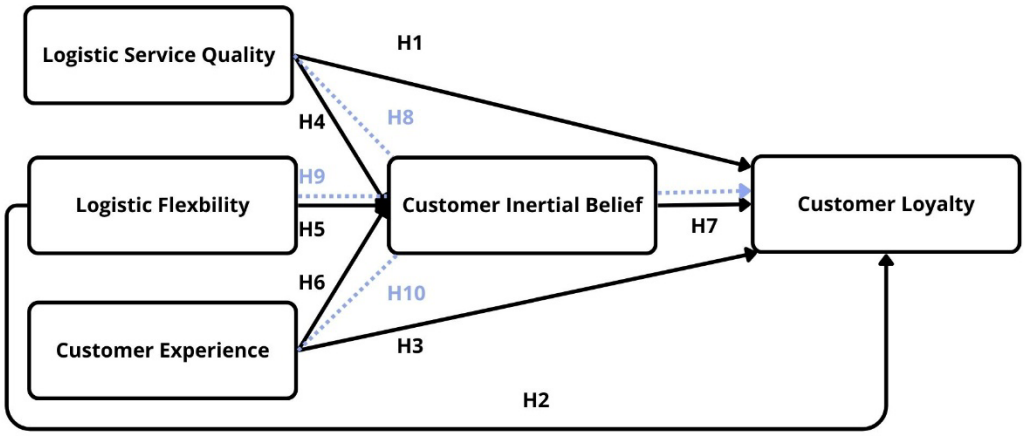

Figure 1. Conceptual Framework

Figure 1 presents the conceptual framework of this study, showing the relationships among logistic service quality, logistic flexibility, customer experience, customer inertial belief, and customer loyalty. Logistic service quality, logistic flexibility, and customer experience are depicted as directly influencing customer loyalty, while customer inertial belief acts as a mediating factor, transmitting the effects of these variables to loyalty. The diagram highlights both direct and indirect pathways, illustrating how operational capabilities and customer experiences collectively shape habitual behaviors and long-term commitment to the service provider.

RESEARCH METHODS

This study employs a quantitative research method with a causal research design to examine the cause-and-effect relationships among the variables under investigation. A quantitative approach is considered appropriate because it allows for systematic measurement, statistical analysis, and objective evaluation of the relationships between constructs. The primary data for this research were collected through structured questionnaires distributed to individuals who are users of courier service companies in Indonesia. The questionnaire items were designed to capture respondents' perceptions and experiences related to logistics services, and all responses were measured using a five-point Likert scale ranging from strongly disagree to strongly agree. This scaling technique enables the transformation of subjective opinions into quantitative data that can be statistically analyzed.

The collected data were analyzed using the Structural Equation Modeling–Partial Least Squares (SEM-PLS) approach, specifically utilizing SEM-PLS version 4, as recommended by Hair et al. (2019). SEM-PLS was chosen because of its suitability for analyzing complex research models involving multiple variables and indicators, as well as its ability to handle non-normal data distributions and relatively large models. In addition, this study adapts and modifies a research model developed by McCarter et al. (2022) by incorporating a service recovery dimension, particularly focusing on speed and process aspects. This modification was made to ensure that the research model aligns with the characteristics and operational realities of the online delivery service industry.

The unit of analysis in this research is the individual consumer, specifically users who have utilized delivery services provided by the five courier companies with the highest

brand index in Indonesia in 2021, namely JNE, J&T, TIKI, Pos Indonesia, and DHL. The research population comprises all active courier service users in DKI Jakarta, which is estimated at approximately 7.6 million individuals, representing about 68% of the total population of DKI Jakarta in 2024. This large population reflects the high level of reliance on courier services in urban areas.

Sampling was conducted using the Proportional Stratified Random Sampling technique. This method involves dividing the population into several strata based on the demographic characteristics of courier service users, ensuring that each subgroup is proportionally represented in the sample. According to the guidelines provided by Hair et al. (2019) for multivariate analysis, the minimum required sample size is determined by multiplying the number of indicators by ten. With a total of 30 indicators representing five research variables, the minimum sample size required for this study is 300 respondents. After data collection, the responses were summarized, processed using SmartPLS 4 software, and analyzed to test the proposed hypotheses and draw valid research conclusions.

RESULTS

Based on Table 1, all indicators in each dimension have an outer loading value above 0.70, which indicates a good level of convergent validity and shows that each indicator consistently represents the construct being measured. In the logistics service quality construct, the indicator with the highest value is service consistency in meeting customer demands (0.788), while the lowest value is found in tracking information accuracy (0.731), making service consistency the most dominant factor. In Logistics Flexibility (FL), the ability to use various modes of transportation obtained the highest value (0.852), indicating that customers place more emphasis on transportation mode flexibility than distribution route adjustments (0.713).

Furthermore, in customer experience, the highest indicator is customer feedback on social media (0.788), indicating that digital interaction has a greater influence on experience than service usage frequency (0.719). In the customer inertia belief, the highest indicator is reluctance to adapt to new brands (0.900), indicating that psychological barriers play a major role in maintaining customer inertia. Meanwhile, in customer loyalty, strong brand preference (0.867) has a greater influence than repurchase frequency (0.731), indicating that loyalty is driven more by emotional attachment than transactional behavior. Thus, these results prove that all indicators have adequate measurement strength and can be reliably used in the Partial Least Squares (PLS) analysis model.

The second is the test for construct reliability and validity. The findings in Table 1 indicate that every variable satisfies the standards for construct reliability and validity. Cronbach's Alpha scores for all variables exceed the minimum threshold of 0.70, demonstrating that the internal consistency among constructs (dimensions) within each variable is strong. Likewise, the Composite Reliability values for each variable exceed 0.70, suggesting that the indicators possess sufficient reliability in evaluating the intended constructs.

Based on Table 1, all variables meet the required measurement criteria. Cronbach's alpha values exceed the 0.70 threshold, indicating high internal consistency, logistics service quality (0.845), logistics flexibility (0.820), customer experience (0.837), customer loyalty (0.929), and customer inertia belief (0.908). Composite Reliability (CR) values are also above 0.70, confirming stable measurement: Customer loyalty (0.942) and customer inertia belief (0.930) show very strong reliability. The Average Variance Extracted (AVE) for all constructs exceeds 0.50, demonstrating good explanatory power: logistics flexibility (0.651), customer loyalty (0.670), and customer inertia belief (0.688). These results confirm that all constructs are reliable and valid for further SEM-PLS analysis.

Table 1. Loading Factor & Reliability Test

Variable	Construct	Loading Factor	Cronbach's Alpha	Composite Reliability	AVE
Logistics Service Quality (LSQ)	LSQ01	0.763	0.845	0.885	0.562
	LSQ02	0.788			
	LSQ03	0.744			
	LSQ04	0.734			
	LSQ05	0.737			
	LSQ06	0.731			
Logistics Flexibility (LF)	LF01	0.713	0.820	0.881	0.651
	LF02	0.828			
	LF03	0.852			
	LF04	0.826			
Customer Experience (CE)	CE01	0.713	0.837	0.880	0.550
	CE02	0.738			
	CE03	0.719			
	CE04	0.768			
	CE05	0.788			
	CE06	0.722			
Customer Loyalty (CL)	CL01	0.731	0.929	0.942	0.670
	CL02	0.850			
	CL03	0.867			
	CL04	0.827			
	CL05	0.726			
	CL06	0.851			
	CL07	0.866			
	CL08	0.818			
Customer Intertial Belief (CIB)	CIB01	0.728	0.908	0.930	0.688
	CIB02	0.795			
	CIB03	0.804			
	CIB04	0.845			
	CIB05	0.894			
	CIB06	0.900			

Based on Table 2, the f^2 values indicate that logistics service quality has a small effect on customer inertia belief (0.019), while logistics flexibility (0.126) and customer experience (0.167) have moderate effects, with customer experience being slightly stronger. Customer inertia belief strongly influences customer loyalty (0.340), whereas the direct effects of logistics service quality (0.009), logistics flexibility (0.079), and customer experience (0.032) on loyalty are small. These results emphasize that the independent variables influence customer loyalty more effectively indirectly through customer inertia belief, underscoring its critical mediating role.

Table 2. f^2 Value

Path	f^2	Effect
Logistics Service Quality → Customer Intertial Belief	0.019	Small
Logistics Flexibility → Customer Intertial Belief	0.126	Moderate
Customer Experience → Customer Intertial Belief	0.167	Moderate
Customer Intertial Belief → Customer Loyalty	0.340	Large
Logistics Service Quality → Customer Loyalty	0.009	Small
Logistics Flexibility → Customer Loyalty	0.079	Small
Customer Experience → Customer Loyalty	0.032	Small

Table 3. Predictive Relevance

Variable	SSO	SSE	Q² (=1-SSE/SSO)
Customer Inertia Belief	1800	1083.035	0.399
Customer Loyalty	2400	1330.144	0.446

According to the predictive relevance findings in Table 3, the customer inertia belief variable exhibits a q² value of 0.399, indicating that the model demonstrates strong predictive capability since the value surpasses 0. This indicates that 39.9% of the details in the customer inertia belief data can be precisely forecasted by the model. The customer loyalty variable has a Q² value of 0.446, signifying sufficient predictive capability with an accuracy of 44.6%. In general, these two Q² values suggest that the constructed model can effectively predict endogenous variables, showing a greater prediction accuracy for variable Y compared to variable Z.

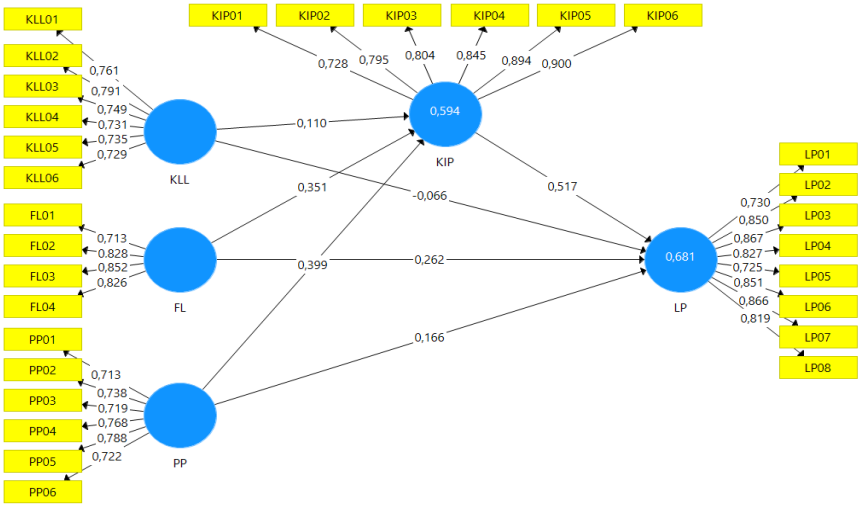

Figure 2. Outer and Inner Models

Figure 2 presents the results of the SEM-PLS model analyzing the effects of LSQ, LF, and CE on CL, with CIB acting as a mediating variable. Structurally, LSQ, LF, and CE have positive effects on CIB, with the strongest influences coming from customer experience and logistics flexibility. Customer inertia belief, in turn, has a strong impact on customer loyalty. Meanwhile, the direct effect of logistics service quality on loyalty is weak and negative, while logistics flexibility and customer experience show positive but relatively smaller direct effects on loyalty.

The R² value of 0.594 for customer inertia belief indicates that 59.4% of the variance in customer inertia is explained by LSQ, LF, and CE. In addition, the R² value of 0.681 for customer loyalty shows that the overall model explains 68.1% of the variance in customer loyalty. The figure highlights that customer loyalty is more strongly formed through customer inertia beliefs rather than through the direct influence of logistics service quality, logistics flexibility, and customer experience alone.

Table 4. Direct Effect Hypothesis Testing

Hypothesis	Direct Effect	Coef	Bootstrap	SD	T-Statistic	p-value	f²	Results
H1	LSQ → CL	-0.066	-0.064	0.047	1.426	0.072	0.009	Rejected
H2	LF → CL	0.262	0.255	0.060	4.373	0.000	0.079	Accepted
H3	CE → CL	0.166	0.172	0.055	3.032	0.003	0.032	Accepted
H4	LSQ → CIB	0.110	0.113	0.054	2.060	0.040	0.019	Accepted
H5	LF → CIB	0.351	0.348	0.074	4.768	0.000	0.126	Accepted
H6	CE → CIB	0.399	0.402	0.076	5.287	0.000	0.167	Accepted
H7	CIB → CL	0.517	0.518	0.062	8.359	0.000	0.340	Accepted

Table 4 presents the results of direct effect hypothesis testing using SEM-PLS, including path coefficients, t-statistics, p-values, and effect sizes (f²). The results show

varying levels of influence among the tested relationships. Logistics service quality does not significantly affect customer loyalty, with a negative coefficient of –0.066, a p-value of 0.072, and a negligible effect size ($f^2 = 0.009$), leading to the rejection of H1. in contrast, logistics flexibility positively and significantly affects customer loyalty ($\beta = 0.262$; $p = 0.000$; $f^2 = 0.079$), supporting H2, while customer experience also positively influences loyalty ($\beta = 0.166$; $p = 0.003$; $f^2 = 0.032$), supporting H3.

Regarding the customer inertia belief, all related hypotheses are supported. Logistics service quality has a weak but significant effect on customer inertia belief ($\beta = 0.110$; $p = 0.040$; $f^2 = 0.019$; H4 accepted). Logistics flexibility shows a stronger influence ($\beta = 0.351$; $p = 0.000$; $f^2 = 0.126$; H5 accepted), and customer experience has the strongest effect ($\beta = 0.399$; $p = 0.000$; $f^2 = 0.167$; H6 accepted). Finally, customer inertia belief has a very strong impact on customer loyalty ($\beta = 0.517$; $p = 0.000$; $f^2 = 0.340$; H7 accepted), confirming its role as a critical determinant and mediator in the research model.

Table 5. Indirect Effect

Path	Relationship	Original Sample (O)	Sample Mean (M)	Std. Deviation (STDEV)	T-Statistic (|O/STDEV|)	P Values
LSQ-CIB-CL	CIB -> CL	0.746	0.746	0.043	17.544	0.000
	LSQ -> CIB	0.514	0.519	0.053	9.724	0.000
	LSQ -> CL	0.144	0.146	0.044	3.262	0.001
LF-CIB-CL	LF -> CIB	0.680	0.683	0.035	19.251	0.000
	LF -> CL	0.361	0.358	0.056	6.477	0.000
	CIB -> CL	0.574	0.578	0.057	10.083	0.000
CE-CIB-CL	CIB -> CL	0.593	0.595	0.055	10.800	0.000
	CE -> CIB	0.693	0.695	0.036	19.520	0.000
	CE -> CL	0.327	0.327	0.052	6.334	0.000

Table 5 shows that logistics service quality significantly affects customer loyalty ($p = 0.000 < 0.05$), as does customer inertia's belief in customer loyalty ($p = 0.000 < 0.05$). The effects of logistics service quality on customer inertia belief (b) and of customer inertia belief on customer loyalty (c) are also significant. The Variance Accounted For (VAF) is calculated as follows: direct effect (a) = 0.544; indirect effect ($b \times c$) = $0.514 \times 0.746 = 0.383$; total effect = 0.927; VAF = 0.544 / 0.927 = 0.59. Since VAF < 0.80, Customer Inertia Belief partially mediates the effect of Logistics Service Quality on Customer Loyalty. Thus, it is a significant partial mediator (H8 accepted).

Logistics Flexibility significantly affects customer loyalty ($p = 0.000 < 0.05$), as does customer inertia belief on customer loyalty ($p = 0.000 < 0.05$). The effects of logistics flexibility on customer inertia belief (b) and of customer inertia belief on customer loyalty (c) are also significant. The VAF is: direct effect (a) = 0.752; indirect effect ($b \times c$) = $0.68 \times 0.574 = 0.390$; total effect = 1.142; VAF = 0.752 / 1.142 = 0.66. Since VAF < 0.80, customer inertia belief partially mediates the effect of logistics flexibility on Customer Loyalty, making it a significant partial mediator (H9 accepted).

Customer experience significantly affects customer loyalty ($p = 0.000 < 0.05$), as does customer inertia belief on customer loyalty ($p = 0.000 < 0.05$). The effects of customer experience on customer inertia belief (b) and of customer inertia belief on customer loyalty (c) are also significant. The Variance Accounted For (VAF) is: direct effect (a) = 0.742; indirect effect ($b \times c$) = $0.693 \times 0.593 = 0.411$; total effect = 1.153; VAF = 0.742 / 1.153 = 0.64. Since VAF < 0.80, customer inertia belief partially mediates the effect of customer experience on customer loyalty, making it a significant partial mediator (H10 accepted).

DISCUSSION

Logistics service quality, including reliability, security, and tracking systems, is expected to enhance customer loyalty through increased satisfaction, as explained in the SERVQUAL model. However, the findings of this study show that the effect of logistics service quality on customer loyalty is not significant and even tends to be negative,

indicating a gap between customer expectations and perceived service performance. Loyalty theory suggests that repeat behavior is often influenced by situational factors rather than service quality alone. Gunawardane (2023) emphasizes that strong loyalty is more strongly driven by emotional experiences and long-term relationships. Therefore, service innovation and trust-building interactions play a greater role in shaping loyalty than purely technical service aspects (Cotarelo et al., 2021; Saputra & Mahaputra, 2022; Rane, 2023).

The results indicate that logistics flexibility has a positive and significant effect on customer loyalty. The ability of logistics providers to adjust delivery times, routes, and transportation methods enhances perceived customer value and encourages repeat usage and favorable attitudes toward the service provider. This finding is consistent with Wan et al. (2024) and Cotarelo et al. (2021), who demonstrate that distribution and transportation flexibility increase customer satisfaction, repurchase intention, and customer attachment. It also aligns with Närvänen et al. (2019), who argue that service flexibility strengthens both affective and cognitive loyalty by meeting customer expectations and optimizing perceived benefits. In addition, customer experience has a positive and significant effect on customer loyalty in freight-forwarding companies. Positive experiences increase customers' intention to continue using the same service (Manyanga et al., 2022). Affective experiences strengthen emotional bonds, while behavioral experiences such as ease of use, service speed, and reliability encourage repeat usage (Chaudhuri & Ligas, 2022). Furthermore, positive social interactions enhance trust and favorable attitudes toward the company, supporting the findings of Gunawardane (2023).

The results show that logistics service quality has a positive and significant effect on customer inertial belief. Reliable and consistent services foster habitual usage, comfort, and a sense of security, encouraging customers to continue using the same provider. This finding is consistent with Fauziah et al. (2023), who report that high perceived service quality strengthens customer relationships and reduces switching intentions. Moreover, Alrawad et al. (2023) and Saputri et al. (2024) explain that non-financial switching costs and perceived risks discourage customers from trying new service providers, thereby reinforcing customer inertia.

Similarly, logistics flexibility has a positive and significant effect on customer inertial belief. The ability of freight-forwarding companies to adapt their services enhances customers' sense of security and comfort, reducing their motivation to seek alternative providers. This result aligns with Alrawad et al. (2023), who argue that service flexibility increases repurchase intention, and Kotamena et al. (2020), who highlight that operational adaptability strengthens trust and lowers switching intentions. In addition, logistics flexibility fosters emotional bonds with customers, supporting the findings of Rohwiyati et al. (2020).

The findings show that customer experience has a positive and significant effect on customer inertia, meaning that positive, consistent experiences make customers more comfortable and less willing to switch providers. This result supports consumer behavior theory and is consistent with Nguyen (2021) and Chaudhuri and Ligas (2022), who found that good experiences build trust, satisfaction, and long-term customer retention. Furthermore, the study confirms that customer inertia has a positive and significant effect on customer loyalty. Customers who feel comfortable, familiar, and confident with a service tend to remain loyal. This finding aligns with Gunawardane (2023) and Muhammad et al. (2024), who emphasize that trust, consistency, and perceived stability strengthen loyalty.

The results also indicate that customer inertia belief mediates the relationship between logistics service quality and customer loyalty. High service quality builds trust and satisfaction, which then develops inertia and leads to long-term loyalty. This finding is in line with Mehdi et al. (2023) and Akbari et al. (2023). Similarly, customer inertia mediates the effect of logistics flexibility on customer loyalty. Flexible and adaptive services strengthen customer trust and habits, making customers more likely to stay loyal. This is

consistent with Sabokro et al. (2021) and Rosário and Casaca (2023). Finally, the study confirms that customer inertia mediates the influence of customer experience on customer loyalty. Positive experiences alone may only create short-term satisfaction, but when reinforced by inertia, they lead to sustainable loyalty. This finding supports previous studies by Triyono and Susanti (2021) and Gunawardane (2023). Thus, the findings highlight that customer inertia is a key psychological mechanism that transforms service quality, flexibility, and experience into long-term customer loyalty.

CONCLUSION

Based on the research findings, this study concludes that logistics service quality does not have a direct and significant effect on customer loyalty, indicating that loyalty in the freight forwarding industry is not determined solely by service quality, which may be due to intense competition and relatively standardized services. In contrast, logistics flexibility and customer experience have a positive and significant effect on customer loyalty, showing that adaptive services and positive interactions strengthen customers' long-term commitment. The results also reveal that logistics service quality, logistics flexibility, and customer experience positively influence customer inertia belief. Furthermore, customer inertia belief has a significant positive effect on customer loyalty and plays a mediating role in the relationship between logistics service quality, logistics flexibility, customer experience, and customer loyalty.

The main implication of this study is that freight forwarding companies should not only focus on improving service quality but also emphasize flexibility and consistent customer experience to build customer inertia as a strategic mechanism for maintaining loyalty. By strengthening customers' comfort, habits, and trust, companies can retain customers even when alternative services are available. This study is limited to freight forwarding companies in DKI Jakarta and focuses on specific variables, which may limit the generalizability of the findings to other regions or industries. Therefore, future research is recommended to expand the research scope to different locations, include additional variables such as switching costs or customer trust, and apply longitudinal approaches to better capture changes in customer inertia and loyalty over time.

FUNDING STATEMENT: This research did not receive any specific grant from funding agencies in the public, commercial, or not - for - profit sectors.

CONFLICTS OF INTEREST: The author declares no conflict of interest.

DECLARATION OF GENERATIVE AI STATEMENT: During the preparation of this work, the author(s) used ChatGPT, Grammarly, and Turnitin in order to assist with language refinement, grammar checking, and originality verification. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

REFERENCES

[1] Abidin, R. A., Yudistria, Y., & Ramli, A. H. (2025). The effect of customer experience, customer satisfaction and word of mouth on customer loyalty. *Jurnal Ilmiah Manajemen Kesatuan*, *13*(2), 685-702.

[2] Aisyah, A. N., & Suharto, Y. (2023). Gen Z attention grabber: The influential power of customer inertia in Jakarta. *Tec Empresarial*, *18*(2), 319-339.

[3] Akbari, M., Bagheri Anilu, S., Bigdeli, M., & Rezasoltany, M. (2023). The consequences of the COVID-19 pandemic on marketing performance considering the role of technology (Case study: Iranian chain hotels). *Research in Globalization, 6*(8), 100-121.

[4] Alrawad, M., Lutfi, A., Almaiah, M. A., & Elshaer, I. A. (2023). Examining the influence of trust and perceived risk on customers' intention to use NFC mobile payment systems. *Journal of Open Innovation: Technology, Market, and Complexity, 9*(2), 100-117.

[5] Amoroso, D. L., Ackaradejruangsri, P., & Lim, R. A. (2017). The impact of inertia as mediator and antecedent on consumer loyalty and continuance intention. *International Journal of Customer Relationship Marketing and Management (IJCRMM)*, *8*(2), 1-20.

[6] Aygün, C., & Akyüz, İ. (2023). Pengaruh fleksibilitas dan kualitas layanan terhadap kepercayaan, kepuasan pelanggan, dan loyalitas pada perusahaan freight forwarder. *The Journal of International Scientific Researches, 8*(3), 305–322.

[7] Bowersox, D. J., Closs, D. J., Cooper, M. B., & Bowersox, J. C. (2013). *Supply chain logistics management* (4th ed.). New York: McGraw-Hill Education.

[8] Central Bureau of Statistics. (2019). *Statistik e-commerce 2019*. Jakarta: Badan Pusat Statistik.

[9] Chaudhuri, A., & Ligas, M. (2009). Consequences of value in retail markets. *Journal of Retailing, 85*(3), 406–419.

[10] Chopra, S., & Meindl, P. (2019). *Supply chain management: Strategy, planning, and operation* (7th ed.). Boston, MA: Pearson Education.

[11] Christopher, M. (2016). *Logistics and supply chain management* (5th ed.). Harlow: Pearson Education.

[12] Cotarelo, M., García, H., & Fayos, T. (2021). A further approach in omnichannel logistics service quality, satisfaction, and customer loyalty. *International Journal of Retail & Distribution Management, 49*(11), 1687–1705.

[13] DHL. (2022). *The future of logistics: Digital transformation and innovation in the supply chain*. Bonn: DHL Logistics.

[14] Fauziah, Y., Sumantyo, F. D. S., & Ali, H. (2023). Pengaruh online consumer review, kualitas produk, dan persepsi harga terhadap keputusan pembelian. *Jurnal Komunikasi dan Ilmu Sosial, 1*(1), 48-64.

[15] Gao, L. X., Melero-Polo, I., & Sese, F. J. (2025). The role of customer experience dimensions in expanding customer–firm relationships: A customer expansion journey approach. *Journal of Retailing*, *7*(9), 88-99.

[16] Gentile, C., Spiller, N., & Noci, G. (2007). How to sustain the customer experience: An overview of experience components that co-create value with the customer. *European Management Journal, 25*(5), 395–410.

[17] Gunawardane, G. (2023). Enhancing customer satisfaction and experience in financial services: A survey of recent research in financial services journals. *Journal of Financial Services Marketing, 28*(2), 255–269.

[18] Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review, 31*(1), 2–24.

[19] Hartmann, E. V. I., & De Grahl, A. (2011). The flexibility of logistics service providers and its impact on customer loyalty: an empirical study. *Journal of Supply Chain Management*, *47*(3), 63-85.

[20] Hasan, H., Kiong, T. P., & Rahman, A. (2020). Effects of perceived value and trust on customer loyalty towards foreign banks in Sabah, Malaysia. *Global Journal of Emerging Trends in E-Business, Marketing and Consumer Psychology, 6*(1), 1–15.

[21] Hati, S. W., & Juliati, A. (2020). Analisis pengaruh logistics service quality terhadap kepuasan dan loyalitas pelanggan pada perusahaan logistik JNE. *Jurnal Akuntansi, Ekonomi dan Manajemen Bisnis, 7*(2), 240–249.

[22] Huang, H., Ali, S., & Solangi, Y. A. (2023). Analysis of the impact of economic policy uncertainty on environmental sustainability in developed and developing economies. *Sustainability, 15*(7), 58-66.

[23] Hübner, A. H., Holzapfel, A., & Kuhn, H. (2016). Last mile fulfilment and distribution in omni-channel grocery retailing: A strategic planning framework. *International Journal of Retail & Distribution Management, 44*(3), 228–247.

[24] Khairi, L. I., & Cahyadi, E. R. (2023). Pengaruh logistics service quality terhadap customer satisfaction dan customer loyalty pada pengguna JNE dan J&T Express di Jabodetabek. *Jurnal Aplikasi Bisnis dan Manajemen (JABM)*, *9*(2), 671-671.

[25] Kotamena, F., Andika, C. B., & Senjaya, P. (2020). Internal employee qualification affects adaptability to open office leading to workplace satisfaction. *Dinasti International Journal of Management Science, 1*(3), 265–276.

[26] Kotler, P., Keller, K. L., Brady, M., Goodman, M., & Hansen, T. (2019). *Marketing management* (4th European ed.). Harlow, England: Pearson Education.

[27] Lin Soh, K., Hui Chin, S., & Peng Wong, W. (2020). Supply chain modelling and business performance analysis. *Journal of Business Performance and Supply Chain Modelling, 7*(3), 212–232.

[28] Lowson, R. H. (2002). Assessing the operational cost of offshore sourcing strategies. *International Journal of Logistics Management, 13*(2), 79–90.

[29] Manyanga, W., Makanyeza, C., & Muranda, Z. (2022). The effect of customer experience, customer satisfaction, and word of mouth intention on customer loyalty: The moderating role of consumer demographics. *Cogent Business & Management, 9*(1), 208-215.

[30] McCarter, M. W., Haeruddin, M. I. M., & Mustafa, M. Y. (2022). How work discipline and leadership influence employees. *International Journal of Educational Administration, Management, and Leadership, 3*(1), 17–26.

[31] Mehdi, M., Ammari, N., Alami Merrouni, A., El Gallassi, H., Dahmani, M., & Ghennioui, A. (2023). An experimental comparative analysis of different PV technologies performance including

the influence of hot-arid climatic parameters: Toward a realistic yield assessment for desert locations. *Renewable Energy, 205*(10), 695–716.

[32] Melo, S., Coimbra, R., Costa, Á., & Baptista, P. (2015). Analyzing the effects of routing on the sustainability of the city and on the operational efficiency of urban logistics services. In *Proceedings of the URBE Conference* (pp. 1–15). Rome: URBE.

[33] Muhammad, M., Zen, M., Purbayati, R., Kristianingsih, K., Karnawati, H., Iswanto, B., & Juniwati, E. (2024). Customer loyalty to Islamic mobile banking: Evaluating the roles of justice theory, religiosity, satisfaction, and trust. *International Journal of Bank Marketing, 42*(2), 305–327.

[34] Närvänen, E., Mesiranta, N., Mattila, M., & Heikkinen, A. (2019). Introduction: A framework for managing food waste. In *Food waste management: Solving the wicked problem* (pp. 1-24). Cham: Springer International Publishing.

[35] Nguyen, T. (2021). *Improving competence of logistics services of Vietnamese freight forwarding companies post EU–Vietnam Free Trade Agreement period*. Helsinki: JAMK University of Applied Sciences. (Bachelor's dissertation).

[36] Nur'aini, R. D. (2020). Penerapan metode studi kasus Yin dalam penelitian arsitektur dan perilaku. *INERSIA: Informasi dan Ekspose Hasil Riset Teknik Sipil dan Arsitektur, 16*(1), 92–104.

[37] Pratama, M. P., Ramli, A. H., & Mariam, S. (2024). Customer engagement, customer satisfaction, customer commitment, and customer loyalty. *Jurnal Ilmiah Manajemen Kesatuan, 11*(3), 1437–1452.

[38] Putra, I. M. P. R., & Seminari, N. K. (2025). The role of customer satisfaction in mediating the effect of service quality on the intention to reuse (A Study on JNE Express customers in Denpasar City). *International Journal of Economic Literature*, *3*(3), 685-703.

[39] Rai, H. B., Van Lier, T., Meers, D., & Macharis, C. (2017). Improving urban freight transport sustainability: Policy assessment framework and case study. *Research in Transportation Economics*, *64*, 26-35.

[40] Rane, N. (2023). Role and challenges of ChatGPT and similar generative artificial intelligence in business management. *SSRN Electronic Journal*, *8*(7), 1–19.

[41] Rohwiyati, T. H., Setiawan, A. I., Wahyudi, L., Dwi, E., & Amperawati, M. R. A. P. (2020). E-trust and e-service quality on e-loyalty: The role of e-satisfaction and customer privacy. *Journal of Ecohumanism, 3*(4), 3130–3143.

[42] Rosário, A., & Casaca, J. (2023). Relational marketing and customer satisfaction: A systematic literature review. *Estudios Gerenciales, 39*(167), 516–532.

[43] Sabokro, M., Masud, M. M., & Kayedian, A. (2021). The effect of green human resources management on corporate social responsibility, green psychological climate, and employees' green behavior. *Journal of Cleaner Production, 313*(7), 127-133.

[44] Saputra, F., & Mahaputra, M. R. (2022). Effect of job satisfaction, employee loyalty, and employee leadership style (Human resource literature study). *Dinasti International Journal of Management Science, 3*(4), 762–772.

[45] Saputri, E., Yantiana, N., & Mustika, I. G. (2024). Pengaruh inventory turnover dan total assets turnover terhadap profitabilitas. *Sebatik, 28*(1), 11–20.

[46] Sirait, R. T. M., Ginting, M., & Suryani, W. (2024). Dynamic pricing and consumer inertia: An empirical analysis. *Journal of Innovation in Business and Economics*, *8*(02), 78-88.

[47] Situmorang, S. H., Rini, E. S., & Muda, I. (2017). Customer experience, net emotional value, and net promoter score on Muslim middle-class women in Medan. *International Journal of Economic Research, 14*(20), 269–283.

[48] Thai, V. V. (2013). Logistics service quality: Conceptual model and empirical evidence. *International Journal of Logistics Research and Applications, 16*(2), 114–131.

[49] Triyono, A., & Susanti, D. N. (2021). Pengaruh word of mouth, healthy lifestyle, dan brand image terhadap keputusan pembelian sepeda merek Polygon. *Jurnal Ilmiah Mahasiswa Manajemen, Bisnis dan Akuntansi (JIMMBA), 3*(3), 484–494.

[50] Wan, X., Gligor, D., Fan, X., Qi, Y., & Britto, R. (2024). The value of timing, frequency, and quantity: The effects of transshipments on inventory turnover and order fulfillment. *International Journal of Production Economics, 274*(10), 109-126.

[51] World Economic Forum. (2021). *Global trade and logistics in a post-pandemic era*. Geneva, Switzerland: World Economic Forum.

[52] Yukki. (2022). *Logistik urat nadi pembangunan ekonomi*. Retrieved on August 6, 2025 from https://www.alfijakarta.com/wp/logistik-urat-nadi-pembangunan-ekonomi/.

[53] Yuliantini, Olfebri, O., Gunawan, A., & Fahriza, B. (2025). The analysis of on-time performance, service quality, brand image, and promotion on passenger loyalty through passenger satisfaction. *Jurnal Ilmiah Manajemen Kesatuan, 13*(4), 2079–2096.