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# The Impact of Logistics Service Quality on Consumer Satisfaction in E-Commerce Distribution Channels in Indonesia

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## Abstract

**Purpose:** This study examines the correlation between Logistics Service Quality and Customer Satisfaction in Indonesia's e-commerce distribution channels. As the e-commerce distribution channel in Indonesia is rapidly growing, logistics services become the backbone of this industry. This research aims to identify the factors that correlate positively and significantly with customer satisfaction. **Research design, data, and methodology:** This research employs an explanatory quantitative approach. This study surveyed 516 e-commerce users in Indonesia. We collected data via the survey web platform (Jakpat) using non-probability purposive sampling. The study used SmartPLS and Partial Least Squares Structural Equation Modeling (SEM-PLS) to examine how the quality of logistics services affects customer satisfaction. **Results:** The finding reveals a positive and significant correlation between (1) Timeliness and Customer Satisfaction, (2) Order Discrepancy and Customer Satisfaction, (3) Order Condition and Customer Satisfaction, and (4) Operational Information Sharing and Customer Satisfaction. However, there is a hypothesis that is rejected because the result was negative and significant between Personnel Contact Quality and Customer Satisfaction. **Conclusions:** This research contributes to the field of distribution science by demonstrating how Logistics Service Quality influences Customer Satisfaction in the e-commerce industry. The findings offer insights into optimizing distribution strategies through timeliness, order discrepancy, order condition, and operational information-sharing performance.

**Keywords :** Logistics Service Quality, Customer Satisfaction, E-commerce, Distribution Channel

**JEL Classification Code :** D91, E71, L81, M21

## 1. Introduction

The growing use of electronic commerce in Indonesia has created a challenging situation for logistics service companies. The number of third-party logistics and express delivery service companies has increased. The rapid growth

of the e-commerce distribution channel in Indonesia has prompted considerable change in the logistics sector (Febransyah & Camelia, 2022). Since logistics providers have a significant effect on the e-commerce market, consumer perception and experience with the service provided by the logistics firm are crucial parts of this appreciation (Kawa & Swiatowiec-szczepa, 2021).

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Logistics service quality is widely regarded as the best predictor of consumer satisfaction (Akil & Ungan, 2022; Gupta et al., 2023; Rashid & Rasheed, 2024; Uvet, 2020). Regarding recent trends, the growth of the e-commerce sector means that the role of logistics service firms will be increasingly influential. Therefore, it is critical to study the determinants of consumer loyalty in the e-commerce context, especially in the context of logistics. In general, this paper presents an analysis of the theoretical overview problem by including this explanation on logistics providing e-commerce satisfaction.

E-commerce growth has made a significant impact on the evolution of retail commerce worldwide, and Indonesia is no exception to this (Ridhwan et al., 2023). Developing modern technology has diversified consumers' ways of shopping, reducing their need to physically interact with different suppliers. As e-commerce has grown in Indonesia, however, logistics has taken the lead as the most important sector in e-commerce, typically making its competitors a common necessity for the entire world of electronic retail (Febransyah & Camelia, 2022). In e-commerce, Indonesia's supply chain and transaction expenses are seen as having the wrong size in the industry, with several other obstacles deteriorating the program, such as infrastructure, transportation, and environmentally harmful emissions. Consumers are unlikely to be successful in e-commerce when providing goods in such an environment, regardless of the advertising plan. This can affect earnings and success. The retailer strives to fulfill orders that align with the advertised and anticipated product and service standards. This achievement impacts logistics provider services and become factors that influence customer satisfaction, particularly within the retail industry. Indonesian e-commerce is a concern to logistics suppliers and is common to consumers. In addition to quality and price, the products and brands must also be interesting, modern, dynamic, and domestic to ensure effective delivery (Chaerudin & Syafarudin, 2021).

Recent advancements in big data show that it's important to enhance every part of the logistics supply chain by combining systems in e-commerce distribution channels. In seeking customer satisfaction, service quality will significantly determine a website's capability and assurance (Gajewska et al., 2020). The logistics service's performance will directly determine customer satisfaction, and there will be a reduction in costs, which in turn will determine win-win strategies in the product distribution. Earlier studies on this topic have focused on business-to-business transactions in manufacturing, but there has been little research on consumer satisfaction (Vasić et al., 2020). Logistics service quality has direct implications for consumer satisfaction; unfortunately, no empirical data has been found regarding logistics performance that drives consumer satisfaction

(Rashid & Rasheed, 2024). There is a need for empirical data in the Indonesian context that connects service quality with consumer satisfaction in e-commerce. In this case, the problem under study is that the low honesty and trust of e-commerce companies in fulfilling service offerings creates anxiety among consumers and ruins purchasing experiences. Indonesian consumers view daily life logistics as difficult, especially in the context of damaged perishable goods. Tracking goods is also a big challenge, even when customers are prompted by the arrival of the goods occasionally; sometimes customers forget that they have ordered. Besides that, there is a common perception in Indonesia that online shopping and the actual goods received are different.

A possible solution to this problem appears to be present in marketing logistics. Logistics service quality must be equal in importance to consumer satisfaction to guarantee a quality transaction in e-commerce. The main concept of marketing logistics is that as a service, logistics supports marketers in winning the customer satisfaction war, not just product sales. Therefore, the problem that occurred will become the research topic discussed in the next section, which is the impact of logistics service quality on consumer satisfaction in e-commerce.

This research study shall emphasize the relationship that exists between a consumer's perceptions of logistics service quality and their subsequent behavioral intentions. The study will not only investigate whether, how, and to what extent each dimension of logistics service quality influences consumer perceptions with performance and consumer satisfaction variables. The primary goal is to identify and measure how the consumer tends to perceive the impact of logistics service quality from a customer satisfaction perspective. Further, the research aims to explore peculiar factors that directly affect logistics service quality-related issues within an e-commerce landscape in a developing country.

## **2. Literature Review**

### **2.1. Customer Satisfaction**

Consumer satisfaction is a fundamental concept in marketing and management that has been extensively researched for its impact on consumer behavior, loyalty, and overall business success (Khan et al., 2020). In the context of e-commerce, consumer satisfaction is especially important as the online shopping experience is different from in-store shopping, where customers have direct access to products and can interact with staff. In e-commerce, consumer satisfaction is heavily dependent on service quality, particularly in areas such as delivery and logistics management (Gajewska et al., 2020). It is generally defined

as consumers' subjective assessment of a product or service based on how well it meets or surpasses their expectations.

Various factors, including product and service quality, price, shopping convenience, and logistics services, influence consumer satisfaction in e-commerce (Rashid & Rasheed, 2024). Satisfied consumers are more likely to make repeat purchases and provide positive reviews, which are essential for business sustainability, particularly in the highly competitive e-commerce market. They are also more likely to engage in positive word-of-mouth, ultimately expanding the customer base and boosting profitability (Ryu & Park, 2020). Customer retention also plays a crucial role in increasing profitability in e-commerce, as satisfied consumers tend to have higher brand loyalty. Research has shown that the satisfaction of e-commerce consumers heavily depends on delivery quality and the ease of returns. As a result, ensuring consumer satisfaction through high-quality logistics services is crucial, particularly in countries like Indonesia where logistics infrastructure faces challenges (Gajewska et al., 2020).

The correlation between logistic service quality and customer satisfaction in Indonesian e-commerce is a crucial factor that directly impacts the success of online businesses (Akil & Ungan, 2022). The correlation between logistic service quality and customer satisfaction in Indonesian e-commerce is a crucial factor that directly impacts the success of online businesses (Pasaribu et al., 2022). Customer satisfaction in e-commerce is influenced by various factors such as delivery speed, product quality, and customer service (Gajewska et al., 2020). Companies in the Indonesian e-commerce industry need to prioritize improving their logistic service quality to enhance customer satisfaction and ultimately drive business success. Improving logistic service quality can lead to higher levels of customer satisfaction, which in turn can positively impact business success. Companies should focus on timely delivery, order accuracy, and customer support to meet the expectations of Indonesian e-commerce customers. For example, ensuring that packages are delivered on time and in excellent condition can greatly impact customer satisfaction in the Indonesian e-commerce sector. Some key factors that can influence customer satisfaction in Indonesian e-commerce include reliability of delivery, quality of packaging, and responsiveness of customer service (Monoarfa et al., 2024).

In conclusion, consumer satisfaction in e-commerce is the result of various interconnected factors, including product and service quality, logistics, and perceived value. Logistic service quality has emerged as a critical factor in determining consumer satisfaction, as it directly impacts consumers' experiences with receiving their products. Therefore, it is vital for e-commerce platforms and logistics providers to ensure high-quality service to meet and exceed

consumer expectations in the competitive industry.

## 2.2. Logistics Service Quality (LSQ)

In consumer perceptions, service quality in logistics can be reflected in logistic service quality when the ordered goods are in the hands of the recipient (Uvet, 2020). Empirical evidence shows relationships between customer satisfaction and the level of privacy and security, flexibility, timeliness, speed, and accuracy of shipping, and the supplier's availability of the ordered goods. The attribute that focuses on logistics in most quantitative studies is the speed of shipments, the time of shipment errors, and the conditions, presence, and packaging associated with the delivery of the goods (Gupta et al., 2023).

The movement of goods in the supply chain responds to the development of e-commerce, which is also part of the supply chain business. One of the activities that focus on delivery is more commonly known by the term "logistics" (Zhu, 2020). The design or selection of logistics strategies for the company's e-commerce relevant to customer satisfaction includes the performance of the pool, the restoration of goods, the initial service for receiving the goods from the supplier, transportation to customers, and the final service of goods to customers (Kawa & Swiatowicz-szczepa, 2021). The movement of goods must support the growth of e-commerce activities in Indonesia. The target or range of new logistics has shifted to a shorter range but increased transport time on the same day. Indonesia's e-commerce businesses must align with the quality of the logistics services offered to consumers. Preference for service quality and external quality has increased because better quality of service will produce more value for customers shopping online. Several low-cost e-commerce players require quality logistics operations to reach desirable geographical regions (Qi et al., 2024). However, this logistics process requires a wide range of existing operations and even flexibility in Indonesia's logistics business.

LSQ, or logistics service quality, refers to the level of quality in the logistics services provided to consumers. It encompasses dimensions such as timeliness, reliability, the condition of goods upon arrival, and flexibility (Mentzer et al., 2001). In the context of e-commerce, logistics services play a crucial role in directly influencing consumer satisfaction and loyalty, acting as a vital link between the e-commerce platform and the end customer (Akil & Ungan, 2022). Several key dimensions of LSQ have been identified as impacting consumer satisfaction, such as timeliness, order accuracy, condition of goods upon delivery, information transparency, and personalized service (Mentzer et al., 2001). Recent studies have added more factors to consider, like how easy it is to return items, the flexibility of delivery options, and the quality of

communication. This is especially important in online shopping, where consumer expectations are high and constantly changing (Hafez et al., 2021). Faster delivery times significantly enhance overall satisfaction, particularly in competitive e-commerce environments (Davis & Mentzer, 2006). Reliability and accuracy in delivery times are crucial, as inaccurate or delayed deliveries reduce consumer trust and satisfaction, leading to a higher likelihood of customer churn (Rane et al., 2023). The condition of goods upon arrival is also a key component of LSQ, particularly in e-commerce, where damaged or mishandled products can result in negative consumer experiences and erode trust in the logistics provider and e-commerce platform (Esper et al., 2007). Information transparency, particularly tracking updates and real-time communication, has been shown to positively affect consumer satisfaction, manage expectations, and reduce anxiety regarding delivery status (Rafique et al., 2020). High LSQ can lead to increased consumer loyalty, repeat purchases, and positive word-of-mouth, enhancing the brand's reputation (Karia & Wong, 2013). However, in emerging markets such as Indonesia, LSQ faces unique challenges, including infrastructure limitations, geographic barriers, and traffic congestion, contributing to logistical inconsistencies. To address these challenges and improve LSQ, e-commerce distribution channels, and logistics providers are adopting advanced technologies and flexible delivery options, such as same-day or next-day delivery (Rafique et al., 2020). Improving logistics infrastructure, forming partnerships, and using technology are important for meeting and exceeding customer expectations. This focus is also necessary for further research into specific challenges and new ideas in logistics quality (LSQ) in Indonesia (Kucukaltan et al., 2022).

## 2.3. Hypothesis Development

### 2.3.1. Personnel Contact Quality

A study on logistics service quality found that personal contact quality, such as the politeness, empathy, and responsiveness of service personnel, directly influences customer satisfaction by enhancing trust and emotional connection (Hao & Chon, 2021; Hossain et al., 2021). Good communication between staff is crucial for keeping customers happy in e-commerce and B2B settings. Quality communication is key to ensuring customer satisfaction (Bienstock et al., 2008; Lasrado et al., 2023).

**H1:** There is a positive and significant correlation between Personnel Contact Quality and Customer Satisfaction.

### Timeliness

The study emphasized that timeliness remains one of the most critical determinants of customer satisfaction,

especially in logistics and e-commerce services. Customers perceive timely delivery as a sign of reliability and value, reinforcing positive experiences (Goutam et al., 2021). Another research study validated that meeting delivery deadlines consistently enhances satisfaction levels and builds loyalty in competitive markets (Mentzer et al., 2001; Uvet, 2020).

**H2:** There is a positive and significant correlation between Timeliness and Customer Satisfaction

### 2.3.2. Order Condition

Recent Evidence: The quality and condition of orders received significantly affect customer satisfaction. A 2023 study showed that getting products in good shape and as promised makes customers happier, especially in areas like logistics where getting things right is very important (Ali et al., 2021; Alzoubi et al., 2022; Gajewska et al., 2020; Hossain et al., 2021). Another research identified order condition as a key factor in logistics service quality, emphasizing its role in meeting customer expectations (Rashid & Rasheed, 2024).

**H3:** There is a positive and significant correlation between Order Condition and Customer Satisfaction

### 2.3.1. Order Discrepancy Handling

Studies conducted in 2023 showed that handling order problems, such as wrong or damaged products, is crucial for maintaining customer satisfaction. Efficient resolution builds trust and mitigates the negative impact of initial errors (Otto et al., 2020; Uvet, 2020). Another research confirmed that prompt and fair discrepancy handling improves customer satisfaction and encourages repeat business (Miao et al., 2022; Rane et al., 2023).

**H4:** There is a positive and significant correlation between Order Discrepancy Handling and Customer Satisfaction

### 2.3.4. Operational Information Sharing

Transparency and proactive sharing of operational information, such as real-time order tracking, significantly enhance customer satisfaction. Studies in 2023 emphasized that providing accurate information reduces customer anxiety and builds trust in logistics and e-commerce services (Rane et al., 2023). Another research study found that operational information sharing contributes to perceived service reliability and fosters long-term customer relationships in the online retail sector (Burity, 2021; Uvet, 2020).

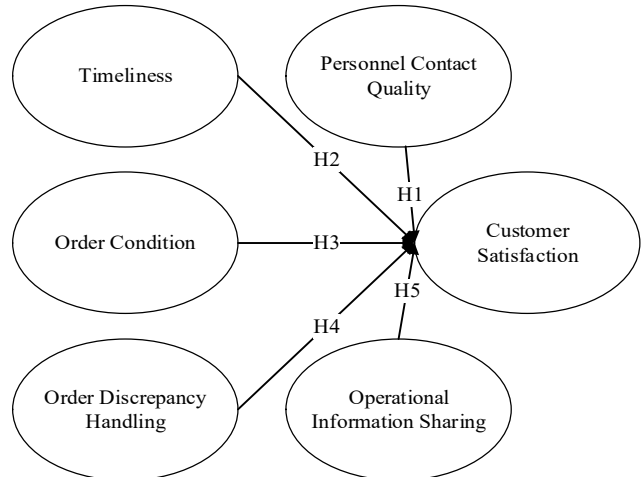
**H5:** There is a positive and significant correlation between Operational Information Sharing and Customer Satisfaction

### 3. Research Methods and Materials

This research used quantitative methods. Data was collected through online questionnaires. The data collection process employs convenience sampling. The population of this research consists of individuals who already have experience buying things from e-commerce, specifically tangible products in Indonesia. The questionnaire design is based on previous studies. The first part of the questionnaire is to reflect the socio-demographic profile of the respondents. Next, the questionnaire uses a Likert scale to rate each statement's agreement. We conducted the analysis using SmartPLS 3. The total number of samples collected is 516. We automatically eliminated the uncompleted survey, so there was no missing sample. Regarding the sample size, there are many approaches in literature. However, the highest sampling size is 20 observations per indicator variable (Kline, 2015). This research uses 20 indicators, which showed that the minimum sample size is 400 (20x20). A sample size of 516 is considered sufficient since it is larger than the minimum requirement.

The research aims to study the effect of Logistics Service

Quality (LSQ) on Customer Satisfaction in Indonesian e-commerce. Below is an illustration of the research model.



**Figure 1: Research Conceptual Model**

The construction variables included in this study and the items associated with them are presented in Table 1.

**Table 1: LSQ Instrument and Corresponding Scale**

Variable	Dimension	Code	Item	Source
Logistic Service Quality	Personnel Contact Quality	PCQ1	Ability to understand consumer conditions	(Bienstock et al., 2008)
		PCQ2	Ability to resolve the problems	
		PCQ3	Contact employee knowledge	
	Timeliness	TL1	The time between placing a requisition and receiving delivery	(Mentzer et al., 2001; Uvet, 2020)
		TL2	Deliveries arrive as promised	
		TL3	Rapid time on backorder	
	Order Discrepancy	OD1	The correction of delivered quality discrepancies is satisfactory	
		OD2	Adequate process of reporting discrepancy	
		OD3	The response to order discrepancies is satisfactory	
	Order Condition	OC1	The order received from logistics services is undamaged	
		OC2	Order damage rarely occurs because of the transport mode	
		OC3	Order damage rarely occurs because of the material handling	
	Operational Information Sharing	OIS1	Operational information is shared effectively with customers	(Uvet, 2020)
OIS2		Services have an adequate ability to share information		
OIS3		The information is accurate		
OIS4		Real-time shipping information can be accessed anytime		
Consumer Satisfaction		CS1	I am generally pleased with the company's online service	(Lin et al., 2016)
		CS2	The company's website is enjoyable to use	
		CS3	I am very satisfied with the company's online service	
		CS4	I am happy with this website company	

### 4. Results and Discussion

#### 4.1. Result

The respondent's profile is shown in Table 2. The distribution of males and females is not significantly

different. Most of the respondents are under 45 years old with an educational background of high school and undergraduate. Most of the respondents are employed in the private sector and are also students.

**Table 2:** Demographic Distribution

	Category	Frequency	Percentage
Gender	Male	234	44%
	Female	282	56%
Age	18<	154	30%
	18-25	109	21%
	36-45	144	28%
	46-55	58	11%
	56-65	31	6%
	>65	20	4%
Education	Uneducated	0	0%
	Elementary School	0	0%
	Secondary School	29	6%
	High School	139	27%
	Undergraduate	238	46%
	Master	99	19%
	Doctorate	11	2%
Occupation	Public Sector	75	15%
	Private Sector	154	30%
	Entrepreneur	67	13%
	Retired	39	8%
	Unemployed	4	1%
	Student	177	34%
	Others	0	0%

The construct was evaluated in terms of its convergent and discriminant validity, as outlined by Anderson & Gerbing in 1988. To check convergent validity, we used these rules: variable loadings should be 0.60 or higher, composite reliabilities (CR) for each factor should be 0.8 or higher, and the average variance extracted (AVE) for each factor should be 0.5 or higher (Henseler et al., 2014; Fornell & Larcker, 1981; Hair et al., 1998). The findings are presented in Table 3.

All requirements for convergent validity have been satisfied. To evaluate discriminant validity, a method proposed by Fornell and Larcker (1981) was utilized. This involved calculating the square root of AVE for each construct and then comparing it with the correlations between the other constructs. The variance inflation factors (VIF) for the indicators and constructions were all below 5, meaning there are no problems with multicollinearity. Specifically, the VIF for the indicators ranged between 1,252 and 4,005, while for the constructions it ranged between 1,229 and 3,496 (Ringle et al., 2015).

**Table 3:** Evidence of Reliability and Validity

Indicator	Mean	Std. Dev	Factor Loadings	t-Statistics	VIF	Cronbach's Alpha	CR	AVE
PCQ					2.679	0.816	0.891	0.732
PCQ1	3.143	0.646	0.819	29.803	1.604			
PCQ2	3.105	0.635	0.900	77.396	2.207			
PCQ3	3.124	0.659	0.846	38.013	1.933			
TL					2.72	0.808	0.887	0.724
TL1	3.147	0.672	0.884	66.783	2.103			
TL2	3.171	0.689	0.895	73.29	2.313			
TL3	3.159	0.642	0.769	26.545	1.472			
OD					1.229	0.762	0.859	0.67
OD1	2.988	0.790	0.811	31.532	2.052			
OD2	2.953	0.796	0.834	32.062	2.12			
OD3	3.085	0.659	0.811	41.731	1.263			
OC					3.496	0.923	0.951	0.867
OC1	3.364	0.871	0.930	146.269	3.449			
OC2	3.298	0.880	0.933	150.901	3.544			
OC3	3.345	0.863	0.932	146.603	3.442			
OIS					3.185	0.864	0.905	0.705
OIS1	3.194	0.907	0.857	43.28	3.533			
OIS2	3.132	0.914	0.884	53.151	4.005			
OIS3	3.147	0.877	0.865	42.521	3.829			
OIS4	3.205	0.826	0.744	46.137	1.252			
CS						0.848	0.899	0.692
CS1	3.213	0.852	0.882	95.53	3.014			
CS2	3.236	0.850	0.900	113.889	3.239			
CS3	3.178	0.825	0.829	63.266	1.959			
CS4	3.078	0.822	0.702	24.216	1.364			

Table 4 presents the results of the discriminant validity evaluation. The data shows that the square root of the average variance extracted (AVE) is greater than all the correlations for each item, which means that we have successfully proven discriminant validity.

**Table 4:** Discriminant Validity (Fornell-Larcker Criterion)

	CS	OC	OD	OIS	PCQ	TL
CS	0.832					
OC	0.816	0.931				
OD	0.489	0.394	0.819			
OIS	0.709	0.828	0.322	0.839		
PCQ	0.315	0.301	0.287	0.247	0.856	
TL	0.436	0.341	0.265	0.263	0.787	0.851

The changes in the dependent variable were explained by the independent variables and how strongly they are

related, following a particular structure as suggested by the hypothesis. We evaluated the model's ability to explain using R Square Adjusted. The study discovered that the structural model accounted for approximately 73.3 percent of the variability in Customer Satisfaction, indicating that the structural model was an appropriate explanatory model.

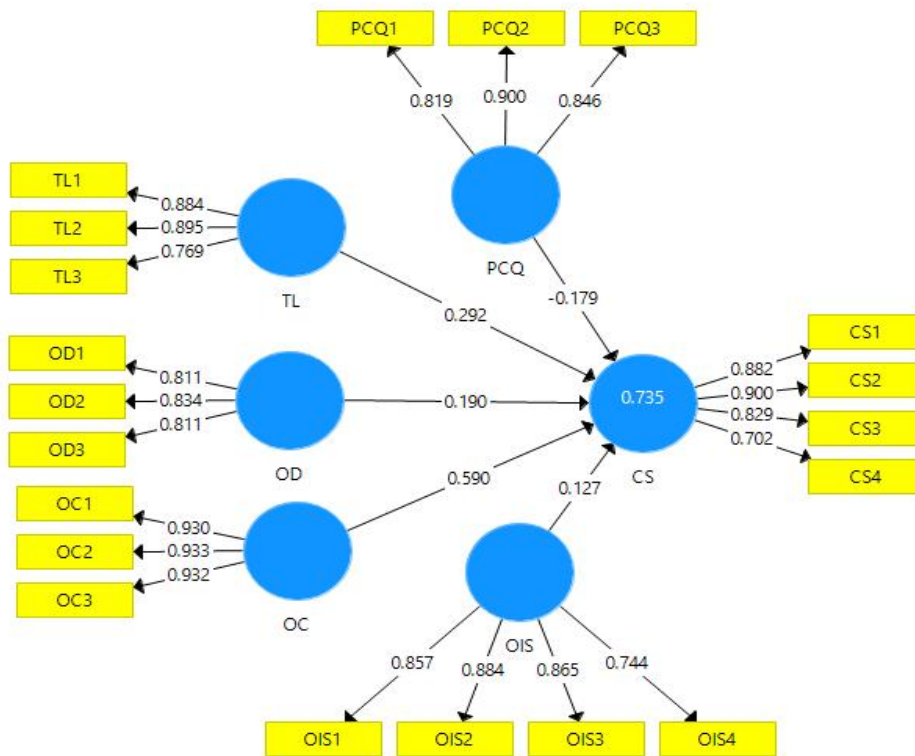
**Table 5:** Model Explanatory Power

	R Square	R Square Adjusted
CS	0.735	0.733

Table 6 presents the results of the hypothesis testing, carried out with a sample size of 500 through bootstrapping. The test results show that the hypotheses are statistically significant at reliability levels of 99%, 95%, and 90%. The p-values of 1%, 5%, and 10% demonstrate this. The results supported most of the hypotheses, except for hypothesis 1, which showed a negative correlation.

**Table 6:** Hypotheses Test

Hypothesis	Link	Path Coefficient	T Statistics	P Values	Accepted
H1	PCQ -> CS	-0.179	6.018	0.000	No
H2	TL -> CS	0.292	9.196	0.000	Yes
H3	OC -> CS	0.59	16.598	0.000	Yes
H4	OD -> CS	0.19	7.442	0.000	Yes
H5	OIS -> CS	0.127	3.981	0.000	Yes



**Figure 2:** Path Model

## 4.2. Discussion

The main goal of this research was to investigate how the opinions of electronic commerce users as a distribution channel regarding logistics service quality impact their satisfaction perspective. One of the five hypotheses faces rejection due to its negative correlation. One of the five hypotheses facing rejection is Personnel Contact Quality. It has been a finding from other research that Personnel Contact Quality has a positive and significant impact on Customer Satisfaction.

There are some presumptions regarding this result. First, most of the big players in the e-commerce companies in Indonesia already employ robots as their contacts, such as Tokopedia and Shopee. Since respondents have not specified which e-commerce they use, we assume most have used those companies. Since the user notices that their contact is a robot, they did not expect the personal contact to be excellent. Second, Personnel Contact Quality has a positive and significant correlation with Customer Satisfaction that is not specified in the e-commerce industry. There arises an assumption that in the e-commerce industry, personal contact is not that matter in customer opinions. However, this assumption is only valid in the Indonesia region since the most visited e-commerce websites are Tokopedia and Shopee. Neither of those e-commerce sites produces their product and only acts as an intermediary between sellers and buyers. This result is related to Akil and Urgan (2022). Their research did not include Personnel Contact as their variable input. We assume that Personnel Contact is not a considerable variable for Logistics Service Quality in the e-commerce industry. Furthermore, other researchers have also found a negative correlation between Logistics Service Quality and Customer Satisfaction (Lin et al., 2016).

Aside from Personnel Contact Quality, the other variable, which is Timeliness, has a positive and significant correlation with Customer Satisfaction. Timeliness involves delivering products ordered to customers completely and reliably within the promised timeframe. If product delivery is delayed past the specified date, customers may not receive the expected benefits, leading them to consider another company for their next purchase. Researchers, such as Uvet (2020), Kim and Cheon (2020), and Wicaksono et al. (2022), have also found a positive and significant correlation between Timeliness and Customer Satisfaction.

Order Discrepancy and Customer Satisfaction have been positively and significantly correlated. If an order is delivered incorrectly, rectifying the mistake not only results in a loss of time but also leads to additional expenses for the company. Customers who receive an incorrect product are likely to recall this negative experience and may hesitate to place future orders with the same company. This discovery

aligns with similar findings from previous research, such as Akil and Urgan in 2022.

A correlation between Order Conditions and Customer Satisfaction has been positive and significant. Delivering the products to customers in a pristine and unharmed state is essential. We must use proper packaging to ensure the products remain undamaged during handling and transportation. It is also crucial to take anti-spoilage measures, especially for items with specific resistance limitations, such as health and food products, keeping in mind the duration of transport. Additional research by Yen et al. (2022), has reinforced this discovery.

The correlation between Operational Information Sharing and Customer Satisfaction has been positive and significant. In the dynamic and constantly evolving realm of the e-commerce industry, the significance of Operational Information Sharing becomes increasingly paramount with each passing day. Customers strongly want to know all the details about the products they choose to buy, including their status and location. This result aligns with the findings of other researchers like Uvet (2020), Hartanto et al. (2022), and Wicaksono et al. (2022).

## 5. Conclusions

This research aimed to extensively analyze and explore the profound impact that logistics service quality has on the satisfaction of e-commerce distribution channel users. By diligently scrutinizing five pivotal variables, this study seeks to provide crucial insights into the relationship between logistics service quality and customer satisfaction. The outcomes of this investigation remarkably divulged that there exists a significant and negative correlation between Personnel Contact Quality and Customer Satisfaction in the Indonesian e-commerce distribution channel. Nonetheless, a positive and significant correlation was observed between Timeliness, Order Discrepancy, Order Condition, and Operational Information Sharing in Customer Satisfaction. These intriguing findings unequivocally illustrate that the traditional assumptions surrounding the importance of personnel contact quality cannot be universally applied across industries. This research serves as a signal highlighting the distinctive dynamics in the context of e-commerce within Indonesia. For enterprises entering this domain, it is crucial to recognize and prioritize timely delivery while concurrently minimizing potential order discrepancies. Furthermore, ensuring optimal product conditions is essential while simultaneously striving to improve communication systems. By strictly adhering to these key requirements, businesses can meet and exceed customer expectations, fostering greater satisfaction among their clientele.

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