

A Study on The Relationship Between Service Quality and Customer Satisfaction in Logistics Services

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Abstract

Customer satisfaction has become one of the most critical factors determining the success of logistics service providers. With the rapid growth of e-commerce and global trade, logistics companies must deliver reliable, responsive, and efficient services to meet increasing customer expectations. This study examines the relationship between service quality and customer satisfaction in logistics services. A descriptive research design was adopted and data were collected from 176 logistics service users using a structured questionnaire. Statistical techniques including reliability analysis, ANOVA, regression analysis, and chi-square tests were applied to analyze the relationship between service quality dimensions and customer satisfaction. The findings reveal that service quality factors such as reliability, responsiveness, assurance, empathy, and tangibility significantly influence customer satisfaction. The results also indicate a strong positive relationship between service quality and satisfaction levels. The study concludes that improving delivery reliability, customer communication, and technology-based tracking systems can significantly enhance customer satisfaction in logistics services.

Keywords— Logistics Services, Customer Satisfaction, Service Quality, Reliability, Responsiveness

I. INTRODUCTION

The logistics industry plays a crucial role in the global supply chain by facilitating the movement of goods from manufacturers to consumers. Efficient logistics operations ensure timely delivery, reduced operational costs, and improved customer satisfaction. With the rapid expansion of e-commerce and globalization, customers now expect faster deliveries, real-time tracking, and responsive customer service. Service quality has therefore become a major competitive factor in the logistics sector. Companies that consistently provide reliable and efficient services are more likely to retain customers and build long-term relationships. Customer satisfaction is influenced by several service quality dimensions such as reliability, responsiveness, assurance, empathy, and tangibility. Understanding the relationship between service quality and customer satisfaction helps logistics companies identify operational strengths and areas that require improvement. This study aims to examine these factors and

analyze how service quality affects customer satisfaction in logistics services.

I) OBJECTIVES OF THE STUDY

- ❖ To analyze the relationship between service quality and customer satisfaction in logistics services.
- ❖ To measure the level of customer satisfaction with logistics services.
- ❖ To identify key service quality dimensions influencing customer satisfaction.
- ❖ To evaluate customer perceptions regarding logistics service performance.
- ❖ To recommend strategies to improve service quality in logistics services.

II) SCOPE OF THE STUDY

The scope of the study focuses on examining the relationship between service quality and customer satisfaction in logistics services. The research evaluates important service

quality dimensions such as reliability, responsiveness, assurance, empathy, and tangibility, which influence customer perceptions of logistics services.

The study analyzes customer experiences related to delivery performance, communication efficiency, service reliability, and problem resolution. It also examines how these service quality factors affect overall customer satisfaction and customer loyalty towards logistics service providers. Furthermore, the research considers the role of technology, service efficiency, and customer support in improving logistics service quality. The findings of the study aim to provide useful insights for logistics service providers to improve service performance, strengthen customer relationships, and enhance overall customer satisfaction in the logistics sector.

III) LIMITATIONS OF THE STUDY

The study has certain limitations that should be considered when interpreting the results.

- ❖ The research is limited to 176 respondents.
- ❖ The study focuses mainly on customer perceptions and may not include operational perspectives.
- ❖ External factors such as fuel price changes, infrastructure issues, and economic conditions may influence logistics performance.
- ❖ Time constraints limited the scope of the research.

IV) REVIEW OF LITERATURE

Lin, X., Mamun, A. A., Yang, Q., & Masukujjaman, M. (2023) studied the relationship between logistics service quality and customer satisfaction. The study found that service quality significantly influences customer satisfaction and reuse intention. Reliability and responsiveness were identified as the most important factors affecting customer perception of logistics services.

Hajduk, I., Poliak, M., & Gašparik, J. (2022) examined customer satisfaction in transportation services and highlighted the importance of punctual delivery, communication, and service consistency. The study concluded that maintaining high

service quality standards helps transportation companies retain customers and improve service performance.

Uvet, H. (2020) conducted an empirical study on logistics service quality and found that reliability, assurance, and responsiveness significantly affect customer satisfaction. The study emphasized that improving these service quality dimensions leads to higher customer loyalty and long-term business success.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988) introduced the SERVQUAL model to measure service quality across service industries. The model identifies five key dimensions of service quality: reliability, responsiveness, assurance, empathy, and tangibility. These dimensions help organizations evaluate customer expectations and improve service performance to enhance customer satisfaction.

V) THEORETICAL BACKGROUND

The study is based on **Service Quality Theory** and **Customer Satisfaction Theory**. Service quality theory emphasizes the importance of reliability, responsiveness, assurance, empathy, and tangibility in delivering effective services. Customer satisfaction theory suggests that satisfaction occurs when service performance meets or exceeds customer expectations.

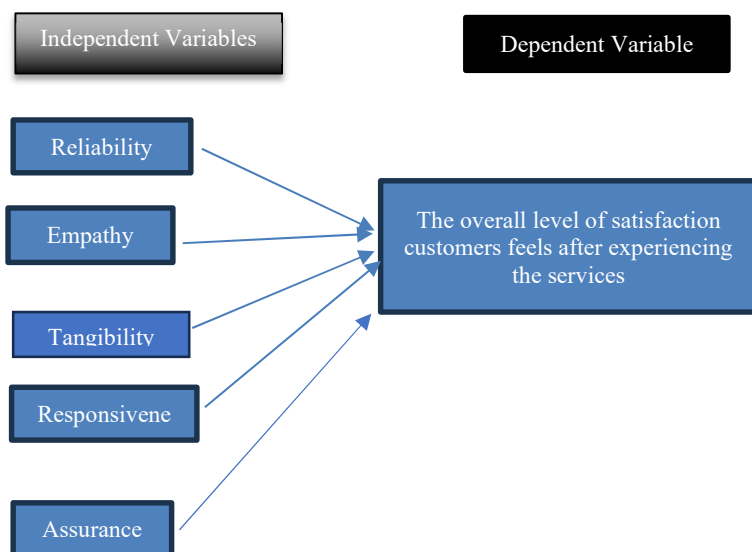


FIGURE 1: CONCEPTUAL MODEL

VII) RESEARCH DESIGN

A descriptive research design was adopted for the study. Data were collected through a structured questionnaire distributed to logistics service users. Convenience sampling was used due to accessibility and time constraints.

A total of **176 respondents** participated in the study. Statistical techniques such as reliability analysis, ANOVA, regression analysis, and chi-square tests were used to analyze the data.

VIII) DATA ANALYSIS

Variables	Category	Frequenc y	Percentag e (%)
Age	Below 25	40	22.7
	26-35	42	23.9
	36-45	39	22.2
	46-60	35	19.9
	Above 60	20	11.4
	Total		176
Gender	Male	89	50.6
	Female	87	49.4
	Total	176	100
Annual Income	Below 100000	86	48.9
	100001-200000	67	38.1
	200001-300000	11	6.3
	300001-400000	7	4.0
	Above 400000	5	2.8
	Total	176	100
Educational Qualificatio n	Student Participant	97	80.8
	Faculty Coordinator	18	15.1
	Institutional Representativ e	04	3.3
	Others	01	0.8

	Total	176	100
Occupation	Student	14	8.0
	Self employed	75	42.6
	Private sector	72	40.9
	Government sector	12	6.8
	Others	3	1.7
	Total	176	100
Services	Courier	99	56.3
	Air cargo	30	17.0
	Warehousing	9	5.1
	Sea cargo	36	20.5
	All of the above	2	1.1
	Total	176	100
Customer Services	Yes	104	59.1
	No	72	40.9
	Total	176	100

TABLE 1: Demographic Profile of Respondents

Most respondents belong to the 26–35 age group (23.9%), with an almost balanced gender distribution (50.6% male and 49.4% female). A large proportion of respondents have an annual income below ₹1,00,000 (48.9%), followed by those earning ₹1,00,001–₹2,00,000 (38.1%), and most participants are graduates or above (69.9%). The majority are self-employed (42.6%) or private sector employees (40.9%), indicating a strong representation of entrepreneurial and working professionals. Most respondents prefer courier services (56.3%), and 59.1% reported receiving assistance, showing that support services are accessible to more than half of the participants.

Model	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
				R Square Change	F Change	df1	df2	Sig. F Change	
1	.705 ^a	.497	.494	.3841	.497	171.990		74	.000

a. Predictors: (Constant), mean sqf

TABLE 2: Regression Analysis of Service Quality Factor and Customer

The regression output indicates that the independent variable mean sqf significantly predicts the dependent variable. The correlation coefficient (R = .705) shows a strong positive relationship, and thsqfodel explains about 49.7% of the variance in the outcome (R Square = .497; Adjusted R Square = .494), which is a substantial proportion. The standard error of the estimate is .3841, suggesting a moderate level of prediction error. The change statistics confirm that the model accounts for a significant amount of variance, with an F change of 171.99 (df1 = 1, df2 = 74, p < .001), indicating that the predictor contributes meaningfully to explaining the dependent variable. Overall, the regression model is highly significant and demonstrates that mean sqf is a strong predictor of the outcome variable.

IX) MANAGERIAL IMPLICATIONS

- ❖ Improve shipment tracking systems with real-time updates.
- ❖ Enhance customer communication during delivery delays.
- ❖ Provide employee training to improve customer service quality.
- ❖ Implement advanced technology systems to improve logistics efficiency.
- ❖ Introduce loyalty programs to retain existing customers.

X) CONCLUSION

This study examined the relationship between service quality and customer satisfaction in logistics services. The findings indicate that service quality dimensions such as

reliability, responsiveness, assurance, empathy, and tangibility significantly influence customer satisfaction.

Customers expect timely deliveries, efficient communication, and reliable services from logistics providers. While overall satisfaction levels are relatively high, improvements in technology, particularly shipment tracking systems, can further enhance the customer experience.

The study concludes that logistics companies that focus on improving service quality will achieve higher customer satisfaction, stronger customer loyalty, and better competitive positioning in the logistics industry.

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