

## Analysis of the Influence of Service Quality, Price, and Facilities on Customer Satisfaction: A Case Study at PT. J&T Express

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### ABSTRACT

Customer satisfaction is a key indicator of long-term success in the logistics industry. This study aims to empirically examine the simultaneous influence of service quality, price, and facilities on customer satisfaction among PT's customers. J&T Express, a major courier company operating amid Indonesia's rapid e-commerce expansion. Data were collected from 200 active customers via a quantitative, cross-sectional survey. Service quality was measured using an adaptation of the five SERVQUAL dimensions. The data were analyzed using partial least squares structural equation modeling (PLS-SEM) with SmartPLS 4.0. Results indicate service quality is the strongest predictor of customer satisfaction ( $\beta = 0.46$ ,  $p < 0.001$ ), followed by price ( $\beta = 0.32$ ,  $p = 0.004$ ) and facilities ( $\beta = 0.21$ ,  $p = 0.012$ ). The structural model explains 62% of the variance in customer satisfaction ( $R^2 = 0.62$ ). Further analysis revealed that responsiveness and tangibles were the most influential subdimensions of service quality. These findings suggest that PT. J&T Express should prioritize improving service responsiveness and physical service evidence while maintaining competitive pricing. This study provides empirical evidence on the relative importance of satisfaction determinants in the courier service industry and offers practical guidance for enhancing services.

**Keywords:** service quality; pricing policy; facilities; consumer satisfaction; logistics; PT. J&T Express



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## 1. Introduction

Customer satisfaction is widely recognized as a key indicator of organizational success, particularly in the highly competitive logistics and delivery services industry. In this context, customer satisfaction is primarily influenced by service quality, pricing strategies, and the availability of supporting facilities [1]. As one of the leading courier companies in Indonesia, PT. J&T Express faces increasing pressure to meet rising customer expectations, a challenge that is further intensified by the rapid expansion of the national e-commerce sector [2].

Service quality in the logistics industry is commonly conceptualized as a multidimensional construct encompassing reliability, assurance, responsiveness, empathy, and tangibles, as proposed in the service marketing framework developed by Lovelock and Wirtz [3]. These dimensions have been consistently linked to positive customer satisfaction outcomes. Nevertheless, price remains a crucial factor in shaping consumer decisions, particularly in parcel delivery services where customers often exhibit high price sensitivity [4]. In addition, the functional characteristics of service facilities—such as accessibility of service points and adequacy of supporting infrastructure—also contribute significantly to customers' perceptions of service value [5].

Despite extensive research on customer satisfaction in service industries, prior studies report inconsistent findings regarding the relative importance of service quality, price, and facilities. While several studies emphasize service quality as the dominant determinant of satisfaction, others suggest that price competitiveness or facility convenience may play a more influential role, especially in markets with diverse purchasing power and logistical accessibility constraints [6,7]. However, empirical studies that simultaneously examine these three factors within the Indonesian logistics context remain limited.

Therefore, this study aims to address this research gap by analyzing the combined influence of service quality, price, and facilities on customer satisfaction at PT. J&T Express. By identifying the relative contribution of each factor, the study will provide empirical evidence to support strategic decision-making and service improvement initiatives in the logistics service sector.



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## 2. Materials and Method

### *Research Design*

This study employed a quantitative research approach with a cross-sectional survey design to examine the relationships between service quality, price, facilities, and customer satisfaction at one point in time. This design allows for the empirical testing of the proposed relationships and provides reliable statistical evidence of the effects of service attributes on customer satisfaction within the operational context of PT. J&T Express.

### *Sampling and Data Collection*

The primary dataset was collected through a survey of 200 active PT customers. J&T Express, drawn from various regions across Indonesia. For the purposes of this study, active customers were defined as individuals who had used J&T Express's delivery services at least twice within the last six months prior to the survey. J&T Express's delivery services at least twice within six months prior to the survey. This sample size meets the statistical power requirements for structural equation modeling (SEM) using SmartPLS, ensuring the reliability of the statistical analysis.

A purposive sampling technique was used to select respondents with sufficient service experience. This approach included customers with diverse demographic characteristics, usage frequencies, and service access experiences. Thus, the representativeness and external validity of the research findings within the company's customer base were enhanced [10].

### *Instrumentation and Measurement*

Data were collected using a structured questionnaire that adapted validated measurement scales from previous service marketing studies. Service quality was operationalized using five dimensions derived from the SERVQUAL model: reliability, responsiveness, assurance, empathy, and tangibles. Price perception was measured using indicators of affordability and perceived price fairness, both of which are widely recognized as key determinants of consumer price sensitivity in research



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[12]. Facility-related variables captured the physical accessibility of service branches and the usability of the company's digital service platforms. This reflects the growing importance of omnichannel service delivery in the logistics industry.

Instrument reliability was assessed using Cronbach's alpha, and all constructs exceeded the recommended threshold of 0.85, indicating strong internal consistency. Construct validity was evaluated using confirmatory factor analysis (CFA), which confirmed that all measurement items appropriately loaded onto their respective latent variables [14].

### ***Data Analysis Procedure***

The analyzed the collected data using Smart PLS 4.0 to estimate the path coefficients and assess the significance of the relationships between service quality, price, facilities, and customer satisfaction. Due to its suitability for predictive analysis and its robustness when handling complex models and non-normally distributed data, partial least squares structural equation modeling (PLS-SEM) was selected [9].

### ***Ethical Considerations***

Throughout the research process, ethical standards were strictly observed. Participants were informed of the study's objectives, provided informed consent, and assured confidentiality and anonymity. Data were collected voluntarily and stored securely in accordance with accepted ethical guidelines for research involving human participants [15].

## **3. Result**

The quantitative analysis, performed on the data collected from the 200 surveyed customers of PT. J&T Express, demonstrated that service quality, price, and facilities are all statistically significant predictors of customer satisfaction, albeit with varying degrees of relative importance.

### ***Regression Findings and Model Fit***

Service quality emerged as the most powerful determinant, exhibiting the highest positive influence on customer satisfaction, demonstrated by



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a 0.46 standardised regression coefficient ( $\beta$ ). This relationship was highly statistically significant ( $p<0.001$ ). Price also demonstrated a notably positive and statistically significant impact, registering a moderate standardized coefficient of 0.82 ( $p=0.004$ ). Meanwhile, the influence of facilities was relatively smaller but remained statistically meaningful, with a standardized coefficient of 0.21 ( $p=0.012$ ).

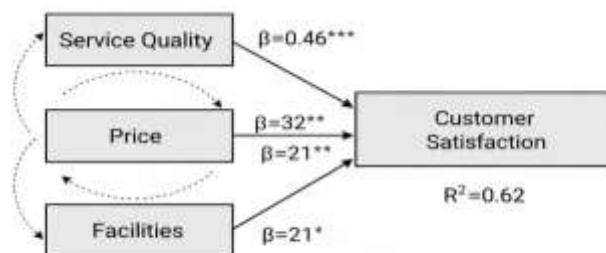
All things considered, the suggested model provided a convincing explanation for the observed variation in the dependent variable. In the case of PT. J&T Express, the adjusted  $R^2$  value of 0.62 indicates that together, facilities, pricing, and service quality account for 62% of the variance in customer satisfaction levels.

### ***Subdimension Insights***

Further analysis at the subdimension level revealed the particularly critical roles of responsiveness and tangibles (physical evidence) within the overarching service quality construct. This finding reinforces established theoretical frameworks regarding the paramount importance of prompt service delivery and visible service components in shaping customer perceptions of excellence.

### ***Graphical Representation of the Model***

The structural relationships and their respective coefficients are visually represented in the path diagram below:



\*\*\*\* $p<0.001$ , \*\* $p<0.01$ , \* $p<.05$

**Figure 1. Results of the Structural Model Analysis (PLS-SEM)**

The path coefficients ( $\beta$ ) show the magnitude and direction of the effect of each independent variable (service quality, price, and facilities) on



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customer satisfaction. Higher  $\beta$  values indicate a stronger influence on customer satisfaction. Statistical significance is denoted by asterisks:  $p < 0.001$ ,  $*p < 0.01$ , and  $***p < 0.05$ . An  $R^2$  value of 0.62 indicates that the model explains 62% of the variance in customer satisfaction at PT. J&T Express.

**Table 1. Summary of Statistical Coefficients**

Variable	Beta ( $\beta$ )	p-value
Service Quality	0.46	<0.001
Price	0.32	0.004
Facilities	0.21	0.012
Adjusted R2	0.62	

The regression model is mathematically formulated as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

$Y$  = Customer Satisfaction (Dependent Variable)

$\beta_0$  = Intercept Term

$X_1$  = Service Quality

$X_2$  = Price

$X_3$  = Facilities

$\beta_1 = 0.46$ ,

$\beta_2 = 0.32$ ,

$\beta_3 = 0.21$  (Standardized Regression Coefficients)

$\varepsilon$  = Error Term

This equation offers a precise quantification of how incremental changes across service quality, price, and facilities predict subsequent alterations in customer satisfaction levels at PT. J&T Express, thereby providing empirical guidance for strategic management decisions focused on service optimization.

The principal finding is that Service Quality is the dominant driver of customer satisfaction at PT. J&T Express ( $\beta=0.46$ ), significantly



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outweighing the influence of Price ( $\beta=0.32$ ) and Facilities ( $\beta=0.21$ ). Furthermore, the model is highly effective, explaining 62% of customer satisfaction variance. This strongly suggests that strategic investment in service dimensions, particularly responsiveness and tangibles, will yield the greatest returns in terms of customer contentment.

#### 4. Discussion

The findings of this study confirm that service quality plays a dominant role in shaping customer satisfaction in the logistics industry, especially at PT. J&T Express. This is empirically evidenced by the highest standardized path coefficient for service quality ( $\beta = 0.46$ ), indicating that improvements in service quality generate a stronger impact on customer satisfaction than price ( $\beta = 0.32$ ) and facilities ( $\beta = 0.21$ ). This result is consistent with established service marketing theories, including the SERVQUAL framework, which emphasizes service reliability, responsiveness, assurance, empathy, and tangible elements as key drivers of perceived service excellence [11]. Similar conclusions have been reported in previous logistics and service-sector studies, highlighting that timely service delivery and responsiveness serve as critical competitive differentiators in highly dynamic markets [16].

Regarding price, the results indicate that although it is not the primary determinant, it remains an important factor influencing customer satisfaction, as reflected by its moderate yet statistically significant coefficient ( $\beta = 0.32$ ). This finding aligns with prior studies suggesting that price sensitivity is prevalent in emerging markets such as Indonesia, where customers tend to evaluate service value based on a balance between cost and performance [12]. However, unlike studies that identify price as the dominant satisfaction driver in price-driven markets [7], this research demonstrates that competitive pricing is more effective when supported by high service quality.

Facilities were found to have a smaller yet statistically meaningful influence on customer satisfaction ( $\beta = 0.21$ ). This outcome is in line with recent research emphasizing the growing importance of omnichannel service environments, where physical accessibility and digital platform usability jointly shape customer experiences [5]. Previous studies have



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similarly noted that well-integrated service facilities enhance customer convenience and contribute indirectly to satisfaction by improving overall service efficiency.

From a theoretical and managerial perspective, this study contributes to the ongoing debate concerning the relative importance of service quality, price, and facilities. The findings reinforce the argument that service quality should be prioritized as the primary strategic focus, while price competitiveness and facility modernization function as complementary factors. Moreover, the identification of responsiveness and tangibles as the most influential service quality subdimensions supports earlier research emphasizing the role of visible service cues and rapid problem resolution in strengthening customer trust and satisfaction [11]. These insights provide clear guidance for logistics service providers seeking to enhance customer satisfaction and sustain competitive advantage.

## 5. Conclusions

This study makes a contribution to the literature on service and logistics management by providing empirical evidence of the relative importance of service quality, price, and facilities in determining customer satisfaction in a rapidly growing logistics market. The findings highlight the strategic importance of prioritizing service quality as the primary driver of customer satisfaction, while positioning pricing strategies and facility improvements as complementary mechanisms that enhance perceived value.

From a practical perspective, the results provide actionable insights for PT. J&T Express by emphasizing the need for continuous improvements in service execution, particularly in areas related to service responsiveness and tangible service elements. Strategic investments in these dimensions are likely to generate the greatest returns in customer satisfaction and strengthen the company's competitive positioning in an increasingly competitive logistics industry.



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## Limitations and Future Research Directions

This study is limited by its cross-sectional research design and reliance on primary survey data collected from customers of a single logistics service provider, which may restrict the generalizability of the findings to other contexts or service industries. Future research is encouraged to employ longitudinal designs, comparative analyses across multiple logistics companies, or incorporate additional variables such as corporate image, customer trust, or service innovation to further enrich the understanding of customer satisfaction dynamics in the logistics sector.

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