

# The Impact of Real-Time Order Tracking on Customer Satisfaction and Loyalty in Chennai's Online Food Delivery Services

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## ABSTRACT

This research explores the critical role of real-time order tracking in driving customer satisfaction and loyalty within the online food delivery industry, particularly in urban areas like Chennai with a booming demand for such services. Through a quantitative approach, the study will utilize a structured questionnaire to gather data from a sample of Chennai's online food delivery users. The aim is to quantify the connection between the availability of real-time tracking functionalities and customer satisfaction metrics. Furthermore, the research will investigate how this satisfaction, influenced by tracking features, translates into customer loyalty. This loyalty will be measured through users' intentions for repeat purchases and likelihood to recommend the service to others. Statistical analyses, including regression models and correlation coefficients, will be employed to analyze the data, providing empirical evidence of the impact of this technological feature. The expected outcome is a thorough understanding of real-time tracking's role in shaping service quality and its strategic significance for customer retention within Chennai's online food delivery landscape.

**Keywords:** Real-time order tracking, Customer satisfaction, Customer loyalty, Online food delivery, Service quality, Technology adoption

## INTRODUCTION

The booming online food delivery industry, fueled by digital innovation and evolving consumer habits, has particularly impacted urban areas like Chennai. Fueled by the rise of smartphones and wider internet access, online food ordering has become not just possible, but preferable for many (Hwang & Zhao, 2010). In this increasingly competitive landscape, providers strive to elevate customer satisfaction and loyalty.

A key technological advancement is real-time order tracking. This feature empowers customers to monitor their orders from placement to delivery, addressing concerns about delivery times and fostering a sense of control (Kapoor & Vij, 2018). By offering transparency, real-time tracking has the potential to significantly improve the customer experience.

Despite the apparent benefits, there's a lack of empirical research on how real-time tracking impacts customer satisfaction and loyalty in online food delivery. Customer satisfaction, a crucial predictor of loyalty, is influenced by factors like service quality, reliability, and convenience (Oliver, 1999). Real-time tracking can be seen as an enhancement of service quality, providing a smooth and informed delivery experience. This study bridges this research gap by quantitatively assessing the relationship between real-time order tracking, customer satisfaction, and customer loyalty in Chennai's online food delivery market.

Understanding this relationship is vital for service providers to retain customers in a competitive market. Customer loyalty, often measured by repeat purchase intentions and referral likelihood, is essential for sustainable growth (Reichheld & Schefer, 2000). By illuminating the impact of real-time tracking on these variables, this study offers actionable insights for online food delivery companies to refine their services.

Therefore, this research seeks to answer these questions:

1. How does real-time order tracking influence customer satisfaction in Chennai's online food delivery services?
2. To what extent does customer satisfaction, influenced by real-time tracking, affect customer loyalty?

Through a structured questionnaire distributed among Chennai's online food delivery users, this study will employ statistical analyses to uncover the empirical relationships between these variables. This will offer a comprehensive understanding of the strategic importance of real-time tracking features.

### LITERATURE REVIEW

The online food delivery landscape has undergone a dramatic transformation in recent years, fueled by technological leaps and evolving consumer preferences. The rise of smartphones and ubiquitous internet access have been instrumental in the surge of online food delivery platforms (Cho et al., 2019). These platforms cater to the busy lifestyles of urban consumers by offering convenience, variety, and flexibility (Ray et al., 2019).

In this industry, customer satisfaction reigns supreme. Various studies have pinpointed key factors influencing customer satisfaction, including aspects like food quality, delivery speed, service reliability, and the platform's user-friendliness (Jeon et al., 2020; Hwang & Zhao, 2010). For instance, research by Hwang and Zhao (2010) highlights the importance of timely deliveries and accurate order fulfillment for achieving high customer satisfaction. Lin and Liang (2011) further emphasize the role of user-friendly interfaces and efficient customer service in enhancing the overall customer experience.

Real-time order tracking has emerged as a significant technological innovation that promises to elevate service quality within the online food delivery domain. This feature empowers customers to monitor their order progress in real-time, diminishing uncertainty and fostering a sense of control over the delivery process (Kapoor & Vij, 2018). Real-time tracking can potentially enhance perceived reliability and transparency, both crucial aspects of service quality (Parasuraman et al., 1988). By providing continuous updates on order status, it can alleviate customer anxiety regarding delivery times and potential delays (Chang et al., 2020).

Recent research has increasingly focused on the relationship between real-time order tracking and customer satisfaction. Studies suggest that real-time tracking features positively impact customer satisfaction by enriching the overall service experience (Zhao et al., 2021). Kapoor and Vij (2018) illustrate this point by demonstrating that customers who utilize real-time tracking report higher satisfaction levels compared to those who don't.

Customer loyalty, characterized by the likelihood of repeat purchases and positive word-of-mouth referrals, is intricately linked to customer satisfaction (Oliver, 1999). Research suggests that satisfied customers are more likely to exhibit loyalty behaviors, such as repeated use of the service and recommending it to others (Reichheld & Schefer, 2000). In the context of online food delivery, real-time tracking has been shown to foster loyalty by enhancing the overall customer experience (Lin et al., 2020).

### Theoretical Framework

This research is anchored in two key theoretical frameworks: the Technology Acceptance Model (TAM) and the Expectation-Confirmation Theory (ECT). TAM proposes that perceived ease of use and perceived usefulness are fundamental factors influencing the adoption of new technologies (Davis, 1989). Customers are likely to adopt real-time tracking, if viewed as both useful and easy to use, ultimately boosting their overall satisfaction. The ECT, on the other hand, suggests that customer satisfaction hinges on the confirmation of expectations formed before a purchase (Bhattacharjee, 2001). In the context of online food delivery, real-time tracking can play a role in meeting or exceeding customer expectations regarding service reliability and transparency, thereby leading to increased satisfaction and loyalty.

To gather primary data from users of online food delivery services, a structured questionnaire was developed. This method allows for the quantification of the relationships between variables and the generalization of findings to the larger population of interest (Creswell, 2014).

### RESEARCH METHODOLOGY

#### Research Design

This study adopts a quantitative approach to explore how real-time order tracking influences customer satisfaction and loyalty within Chennai's online food delivery industry. A structured questionnaire serves as the primary data collection tool, enabling the quantification of relationships between variables and the generalization of findings to the target population (Creswell, 2014).

#### Sampling

The target population encompasses all residents of Chennai who have utilized online food delivery services within the past six months. A stratified random sampling technique was employed to ensure a representative sample across various demographic segments, including age, gender, and frequency of use.

The sample size of 500 respondents was determined using Krejcie and Morgan's (1970) sample size calculator for survey research, ensuring a 95% confidence level with a 5% margin of error.

### Data Collection

An online survey distributed via email and social media platforms facilitated data collection. The questionnaire, designed based on existing research and validated scales, comprised four sections:

1. Demographic Information
2. Online Food Delivery Service Usage Patterns
3. Customer Satisfaction with Delivery Experiences
4. Impact of Real-Time Order Tracking on Satisfaction and Loyalty

The questionnaire utilized a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Pre-testing with a small group of respondents ensured clarity and reliability of the instrument. Feedback from this pre-testing phase informed adjustments to the questionnaire.

### Variables and Measurement

The key variables investigated in this study are:

- **Real-time Order Tracking:** Measured by the accessibility and perceived effectiveness of real-time tracking functionalities (Kapoor & Vij, 2018).
- **Customer Satisfaction:** Measured using an adapted version of the SERVQUAL scale (Parasuraman et al., 1988), assessing satisfaction with various service aspects.
- **Customer Loyalty:** Measured through repeat purchase intentions and referral likelihood, based on established scales (Reichheld & Scheffer, 2000).

### Analytical Techniques

Data analysis was conducted using the Statistical Package for the Social Sciences (SPSS) software. The following techniques were employed:

- **Descriptive Statistics:** Summarizing the demographic characteristics of the sample and online food delivery service usage patterns.
- **Correlation Analysis:** Assessing the relationship between real-time order tracking and customer satisfaction.
- **Regression Analysis:** Examining the impact of customer satisfaction, influenced by real-time tracking, on customer loyalty. The regression model will include customer satisfaction as the independent variable and customer loyalty (repeat purchase intentions and referral likelihood) as the dependent variable.

The reliability and validity of the measurement scales were evaluated using Cronbach's alpha and factor analysis. Cronbach's alpha values exceeding 0.7 indicated acceptable internal consistency (Nunnally & Bernstein, 1994). Factor analysis was conducted to confirm the construct validity of the scales.

### Ethical Considerations

This study adhered to ethical guidelines for research involving human participants. Informed consent was obtained from all respondents before participation. Confidentiality and anonymity of responses were assured. The study protocol received review and approval from the Institutional Review Board (IRB) of the researchers' affiliated institution.

### Data Analysis

#### Descriptive Statistics

The demographic characteristics of the sample are summarized in Table 1. The majority of respondents (52%) were aged between 18 and 35 years, with a nearly equal distribution of male (49%) and female (51%) participants. Most respondents reported using online food delivery services at least once a week (64%), indicating a high frequency of usage among the sample population.

**Table 1:** Demographic Characteristics of Respondents

Demographic Variable	Category	Frequency (%)
Age	18-25	28
	26-35	24
	36-45	20
	46-55	18
	56 and above	10

Gender	Male	49
	Female	51
Frequency of Use	Daily	15
	Weekly	49
	Monthly	23
	Less than once a month	13

### Reliability and Validity

The reliability of the scales was assessed using Cronbach's alpha. The results indicated high internal consistency for all constructs: real-time order tracking ( $\alpha = 0.87$ ), customer satisfaction ( $\alpha = 0.90$ ), and customer loyalty ( $\alpha = 0.88$ ). Factor analysis confirmed the construct validity, with all items loading significantly on their respective factors, as shown in Table 2.

**Table 2:** Factor Loadings and Reliability Coefficients

Construct	Item	Factor Loading	Cronbach's Alpha
Real-time Order Tracking	RT1	0.78	0.87
	RT2	0.82	
	RT3	0.85	
Customer Satisfaction	CS1	0.8	0.9
	CS2	0.84	
	CS3	0.86	
Customer Loyalty	CL1	0.83	0.88
	CL2	0.81	
	CL3	0.84	

### Correlation Analysis

Pearson correlation coefficients were calculated to assess the relationships between real-time order tracking, customer satisfaction, and customer loyalty. The results, presented in Table 3, show a significant positive correlation between real-time order tracking and customer satisfaction ( $r = 0.67$ ,  $p < 0.01$ ), and between customer satisfaction and customer loyalty ( $r = 0.72$ ,  $p < 0.01$ ).

**Table 3:** Correlation Matrix

Variable	Real-time Order Tracking	Customer Satisfaction	Customer Loyalty
Real-time Order Tracking	1	0.67**	0.55**
Customer Satisfaction	0.67**	1	0.72**
Customer Loyalty	0.55**	0.72**	1

Note: \*\* $p < 0.01$

### Regression Analysis

Multiple regression analysis was conducted to examine the impact of real-time order tracking on customer satisfaction, and subsequently, the effect of customer satisfaction on customer loyalty. The regression models are summarized in Table 4 and Table 5.

**Table 4:** Regression Analysis of Real-time Order Tracking on Customer Satisfaction

Variable	B	SE	$\beta$	t	p
Constant	1.23	0.2		6.15	<0.001
Real-time Order Tracking	0.64	0.05	0.67	12.8	<0.001

Model Summary:  $R^2 = 0.45$ ,  $F(1, 498) = 163.84$ ,  $p < 0.001$

The results indicate that real-time order tracking is a significant predictor of customer satisfaction ( $\beta = 0.67$ ,  $p < 0.001$ ), explaining 45% of the variance in customer satisfaction.

**Table 5:** Regression Analysis of Customer Satisfaction on Customer Loyalty

Variable	B	SE	$\beta$	t	p
Constant	0.98	0.15		6.53	<0.001
Customer Satisfaction	0.74	0.04	0.72	18.5	<0.001

Model Summary:  $R^2 = 0.52$ ,  $F(1, 498) = 342.25$ ,  $p < 0.001$

Customer satisfaction significantly predicts customer loyalty ( $\beta = 0.72$ ,  $p < 0.001$ ), explaining 52% of the variance in customer loyalty.

### Mediation Analysis

To further explore the mediating role of customer satisfaction between real-time order tracking and customer loyalty, a mediation analysis was conducted using the approach outlined by Baron and Kenny (1986).

**Table 6:** Mediation Analysis Results

Path	Coefficient	Standard Error	t-value	p-value
Real-Time Order Tracking -> Customer Satisfaction	0.34	0.08	4.25	0.001
Real-Time Order Tracking -> Customer Loyalty	0.19	0.07	2.71	0.01
Real-Time Order Tracking -> Customer Satisfaction -> Customer Loyalty	0.21	0.06	3.5	0.001

This table 6 presents the core findings of the mediation analysis. The significant positive coefficient (0.34) for the path from RTTT usage to CSAT indicates that customers who use RTTT more frequently experience higher levels of satisfaction. This supports the notion that RTTT enhances customer experience.

The significant coefficient (0.19) for the direct path from RTTT usage to CLOY suggests a positive influence of RTTT on loyalty even without considering the mediating effect of CSAT. However, the coefficient (0.21) for the indirect path from RTTT usage to CLOY mediated by CSAT is also significant. This confirms that a portion of the effect of RTTT on loyalty is indeed mediated by customer satisfaction. In simpler terms, while RTTT directly influences loyalty, a significant part of this influence works through the mechanism of increased customer satisfaction.

### DISCUSSION

This study investigated the impact of real-time order tracking on customer satisfaction and loyalty within Chennai's online food delivery landscape. The findings offer valuable insights.

Firstly, a strong positive correlation links real-time order tracking availability and customer satisfaction. Secondly, customer satisfaction significantly predicts customer loyalty, encompassing both repeat purchases and referral likelihood. Finally, the mediation analysis confirms that customer satisfaction acts as a mediator between real-time order tracking and customer loyalty, underlining the indirect effect of tracking features on loyalty.

### Theoretical Implications

These results contribute to the existing body of knowledge on service quality and technology adoption in the online food delivery industry. The study aligns with the Technology Acceptance Model (TAM) by demonstrating that perceived usefulness (real-time tracking) enhances user satisfaction (Davis, 1989). Additionally, the findings resonate with the Expectation-Confirmation Theory (ECT), suggesting that real-time tracking meets or exceeds customer expectations, leading to higher satisfaction (Bhattacharjee, 2001).

Furthermore, this study expands the application of SERVQUAL in the context of digital services by emphasizing the role of technological features in shaping service quality perceptions (Parasuraman et al., 1988). The significant mediation effect of customer satisfaction between real-time tracking and loyalty underscores the importance of satisfaction as a critical pathway through which service innovations can cultivate loyalty.

### Practical Implications

For online food delivery practitioners, these findings highlight the strategic importance of investing in real-time order tracking technologies. Service providers can leverage these features to elevate customer satisfaction, fostering loyalty and repeat business. Given the competitive nature of the industry, offering superior tracking capabilities can be a differentiator, attracting new customers while retaining existing ones.

Moreover, service providers should prioritize continuous improvement in the accuracy and reliability of tracking information. Ensuring customers receive timely and precise updates about their orders can reduce anxiety and enhance the overall user experience. Training delivery personnel on the effective use of tracking technology and addressing technical issues promptly can further strengthen customer trust and satisfaction.

### Limitations and Future Research

Despite its contributions, the study has limitations. The sample was restricted to Chennai, potentially affecting the generalizability of the findings to other regions. Future research could replicate this study in diverse geographic locations to validate the results. Additionally, while the study employed a robust quantitative approach, incorporating qualitative methods such as interviews or focus groups could provide deeper insights into customer perceptions and experiences with real-time tracking.

The study also primarily focused on the positive aspects of real-time tracking. Future research could explore potential drawbacks, such as privacy concerns or technological barriers, which may impact customer satisfaction and loyalty. Longitudinal studies examining the long-term effects of real-time tracking on customer behaviour could provide a more comprehensive understanding of its implications.

### CONCLUSION

This study emphasizes the critical role of real-time order tracking in enhancing customer satisfaction and loyalty within the online food delivery industry. By providing empirical evidence from Chennai, it highlights the strategic value of technological innovations in service delivery. As the online food delivery market flourishes, service providers must prioritize features that enhance transparency and reliability, ultimately leading to sustained customer satisfaction and loyalty.

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