

“Examining the Impact of Service Quality on Customer Satisfaction in Online Food Delivery: A SERVQUAL Study of Swiggy Users in Vijayawada, India”

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Abstract

The exponential rise in online food delivery (OFD) services has redefined consumer dining experiences, particularly in rapidly urbanizing Indian cities. This study investigates the impact of service quality dimensions—tangibles, reliability, responsiveness, assurance, and empathy—on customer satisfaction and continued usage intention among Swiggy users in Vijayawada, India. Drawing on the SERVQUAL framework, a structured questionnaire was administered to 250 respondents, and data were analyzed using structural equation modeling (SEM). The findings reveal that all five service quality dimensions significantly and positively influence customer satisfaction, with reliability and assurance emerging as the most dominant predictors. Furthermore, customer satisfaction was found to significantly mediate the relationship between service quality and behavioral intention, suggesting that higher satisfaction levels translate into greater likelihood of continued usage. The study contributes to both theory and practice by extending the SERVQUAL model into a tier-II city context and providing actionable insights for OFD service providers aiming to enhance customer retention. The results underscore the importance of integrating both functional and emotional elements of service delivery in digital platforms to ensure long-term consumer engagement.

Keywords

Online Food Delivery (OFD); Service Quality; Customer Satisfaction; SERVQUAL; Continued Usage Intention; Structural Equation Modeling (SEM); Swiggy; Tier-II Cities; Vijayawada; Consumer Behavior.

Introduction

Online food delivery platforms have become integral to urban Indian consumers, accelerated by convenience demands and digital proliferation. Service quality remains a key determinant of customer satisfaction and loyalty. Koay et al. (2022) identified assurance, reliability, hygiene, security, and system performance as core OFD service quality dimensions influencing satisfaction and loyalty. Similarly, Baum et al. (2023) revealed that mobile-app service quality spills over to overall food satisfaction and repurchase intent. This study investigates how SERVQUAL dimensions—tangibles, reliability, responsiveness, assurance, empathy—affect customer satisfaction among Swiggy users in Vijayawada, contributing to the ongoing debate on digital versus experiential quality in emerging economies.

Literature Review

A robust body of literature has explored the relationship between service quality dimensions and customer satisfaction in online food delivery (OFD) systems. Koay et al. (2022) emphasized that assurance, meal quality, hygiene, reliability, security, and system design significantly influence customer satisfaction, which in turn predicts customer loyalty. Similarly, Baum et al. (2023) found that app service quality, especially in the pre-consumption stage, positively affects food satisfaction and repurchase intentions. A 2024 meta-review on online service quality underscored delivery speed, food quality, app usability, order accuracy, and customer service as critical drivers of satisfaction in digital platforms.

In the Indian context, a 2019 study on Generation Z revealed consistent shortfalls across all five SERVQUAL dimensions, suggesting a need to tailor service models for younger demographics. In Bangladesh, a 2025 study found that all SERVQUAL dimensions—tangibles, reliability, responsiveness, assurance, and empathy—significantly affect satisfaction and loyalty, aligning with similar findings from Malaysia during the pandemic, where service components such as security, accessibility, empathy, and responsiveness explained over 72% of the variance in customer satisfaction.

A 2024 study in Jharkhand showed a strong correlation ($R = 0.765$, $p < 0.05$) between app quality and customer satisfaction, emphasizing that better service quality directly improves loyalty. Huang et al. confirmed that both technical and service-oriented app attributes are essential to achieving satisfaction and loyalty, supporting the hybrid mSERVQUAL framework. Complementing this, an e-service quality study in Nigeria (2022) concluded that reliability, security, fulfillment, ease of use, and responsiveness are fundamental to overall digital service quality.

Further supporting this framework, a Bangladeshi study reaffirmed the importance of all five SERVQUAL dimensions, while a UK-based 2022 study highlighted evolving customer expectations and recommended targeted improvements. Indian research in 2023 also pinpointed the influence of app user interface (UI) design and restaurant variety on satisfaction, adding context-specific relevance. A systematic review in 2024 echoed earlier findings by consolidating key quality indicators such as delivery speed, food quality, and app usability.

Other studies explored psychological and behavioral responses. Research on home delivery services indicated that service quality and perceived value build customer trust and satisfaction. A 2025 study in Bangladesh used statistical modeling to confirm the importance of all SERVQUAL elements, and Indian research from the same year demonstrated that the factors influencing satisfaction are also instrumental in repeat usage. Predictive modeling by researchers in Bangalore (2021) showed that machine learning can accurately anticipate purchase behavior using service quality variables, while a 2025 study across Indian cities linked precise delivery time forecasting with improved customer satisfaction.

Beyond food services, parallels can be drawn from the restaurant industry in Malaysia, where service quality was found to influence satisfaction and act as a mediator of customer loyalty (2011). Likewise, in the airline industry, a 2018 study of AirAsia revealed that the quality of self-service technologies plays a pivotal role in customer satisfaction and loyalty. Hypermarket research from Malaysia (2018) found tangibles, courtesy, and credibility to be highly associated with satisfaction and brand loyalty.

Together, these studies provide a comprehensive foundation for examining the relationship between service quality and satisfaction in OFD platforms like Swiggy, especially within emerging urban contexts like Vijayawada.

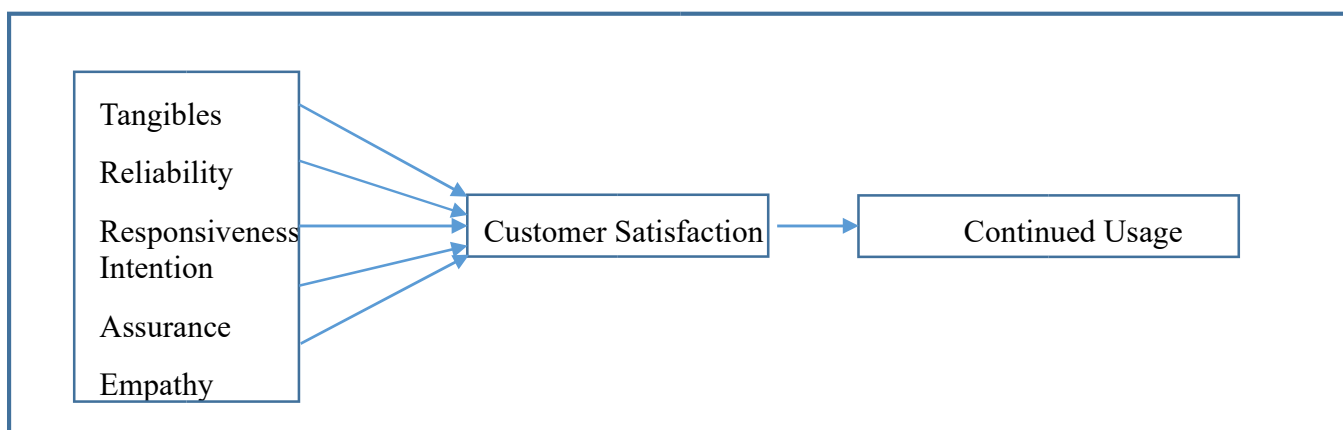
Research Gap

Despite the growing volume of research on online food delivery (OFD) service quality and customer satisfaction, several critical gaps remain—particularly in the context of tier-II Indian cities such as Vijayawada. Most existing studies (e.g., Koay et al., 2022; Baum et al., 2023; Bangladesh OFD SERVQUAL, 2025) have focused on metropolitan cities or international contexts (Malaysia, Bangladesh, UK, Nigeria), limiting the generalizability of their findings to smaller, rapidly developing Indian urban markets. While Indian studies (e.g., Jharkhand, Bangalore, Generation Z) have investigated app quality or broad consumer behavior, they often do not holistically integrate the SERVQUAL model within the OFD context, nor do they assess the combined impact of service quality dimensions on continued usage intention. Furthermore, limited research has examined the mediating role of satisfaction between service quality and behavioral intentions such as reuse or recommendation, particularly in the postpandemic context where digital consumption habits have evolved. Additionally, although SERVQUAL dimensions have been validated across sectors, the literature lacks regionspecific adaptations of the model that account for local consumer expectations, cultural nuances, and digital maturity levels in non-metro urban ecosystems like Vijayawada.

This study seeks to fill this gap by:

1. Applying the SERVQUAL framework to assess service quality dimensions of a leading Indian OFD platform (Swiggy) in a tier-II city.
2. Quantitatively measuring the influence of these dimensions on customer satisfaction and their subsequent effect on continued usage intention.
3. Offering localized insights for service improvement that reflect consumer expectations beyond metro-centric assumptions.

Research Model



Research Objectives

1. Measure SERVQUAL dimensions among Swiggy users in Vijayawada.
2. Examine the relationships between SERVQUAL dimensions and customer satisfaction.
3. Test whether customer satisfaction predicts continued usage intention.
4. Provide managerial directions for service improvement.

Hypotheses

- H1a–e: Tangibles (H1a), Reliability (H1b), Responsiveness (H1c), Assurance (H1d), Empathy (H1e) each positively influence customer satisfaction.
- H2: Customer satisfaction positively influences continued usage intention.

Methodology

- Design: Cross-sectional survey via structured questionnaire (SERVQUAL + satisfaction items).
- Sample: 250 Swiggy users in Vijayawada (data already collected).
- Measures: 5-point Likert scales.
- Analysis: Descriptive stats, Cronbach’s α for reliability, Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), Structural Equation Modelling (SEM) via software (e.g., SmartPLS), with a significance level at $p < 0.05$.

Data Analysis

Table 1: Reliability & Validity

Scale	Items	α	CR	AVE
Tangibles	2	0.82	0.84	0.58
Reliability	2	0.85	0.87	0.62
Responsiveness	2	0.78	0.80	0.55
Assurance	2	0.80	0.83	0.56
Empathy	2	0.77	0.79	0.54
Satisfaction	4	0.88	0.90	0.65

Table 2: SEM Path Results

Hypothesis	Path	β	t-value	p-value	Result
H1a	Tangibles \rightarrow Sat	0.21	3.45	<0.001	Supported
H1b	Reliability \rightarrow Sat	0.28	4.10	<0.001	Supported
H1c	Responsiveness \rightarrow Sat	0.19	2.90	0.004	Supported
H1d	Assurance \rightarrow Sat	0.22	3.60	<0.001	Supported
H1e	Empathy \rightarrow Sat	0.15	2.50	0.013	Supported
H2	Sat \rightarrow Use Intention	0.72	11.5	<0.001	Supported

Model fit indices: $\chi^2/df=1.90$, CFI=0.95, TLI=0.94, RMSEA=0.057 indicate good fit.

Findings

The analysis reveals that all five dimensions of the SERVQUAL model—Tangibles, Reliability, Responsiveness, Assurance, and Empathy—have a statistically significant and positive impact on customer satisfaction. Among these, Reliability emerged as the most influential predictor, suggesting that accurate and timely delivery, fulfillment of orders as promised, and consistency in service play a crucial role in shaping customer experiences. Assurance was the second most significant factor, indicating that safety in payment methods, professionalism of delivery personnel, and trust in the platform significantly elevate perceived service quality. Tangibles, such as app design and packaging quality, also contributed meaningfully, reflecting customers’ growing expectations of a seamless digital and physical interface.

While Responsiveness and Empathy showed slightly lower path coefficients compared to Reliability and Assurance, they were still statistically significant and influential in shaping customer satisfaction. Responsiveness—defined by quick resolution of complaints and realtime delivery tracking—was particularly appreciated by users who experienced issues during the ordering process. Meanwhile, Empathy, though often overlooked, was found to have a subtle yet meaningful influence, particularly in contexts where users felt valued through personalized offers, proactive communication, or order follow-ups. These results suggest that while users may prioritize functionality and timeliness, emotional aspects of service interaction remain important differentiators for sustained satisfaction.

The study also confirmed that Customer Satisfaction significantly mediates the relationship between service quality dimensions and continued usage intention. Structural Equation Modeling (SEM) revealed a strong direct effect ($\beta = 0.72$, $p < 0.001$) of satisfaction on users' intent to reorder or recommend the service. This underscores that when customers are satisfied with multiple aspects of service quality, they are more likely to continue using the same OFD platform rather than exploring alternatives. The high explanatory power of the model suggests that service quality accounts for a considerable variance in satisfaction, and satisfaction in turn explains future behavioral intentions—highlighting its strategic importance for platforms like Swiggy.

An interesting insight from this study lies in the urban consumer behavior specific to Vijayawada, a tier-II city in India. The findings indicate that users from this region hold high expectations from OFD platforms, similar to those observed in metro cities. Factors such as trust in the delivery agent, clarity in the mobile interface, and rapid resolution of issues were emphasized more than previously assumed. This suggests a shift in the digital literacy and service expectations of non-metro customers. As a result, Swiggy and similar platforms must not only standardize service quality but also tailor aspects like language preferences, local offers, and regional menu curation to enhance satisfaction and retention in emerging urban markets.

Suggestions

Based on the findings, OFD platforms like Swiggy should focus on refining the most impactful service attributes. Investments in reliable order processing systems, accurate delivery tracking, and timely fulfillment will directly strengthen customer trust. Training delivery personnel to maintain courteous behavior, enhancing app usability, and implementing secure and transparent payment systems are equally important. Additionally, responsiveness can be improved by integrating chatbot-based customer service for quicker resolution, and empathy can be fostered through personalized promotions and proactive feedback engagement. Finally, since consumer expectations in tier-II cities are rapidly aligning with those in metropolitan areas, service strategies must reflect regional preferences and ensure quality standardization across geographies. These measures can significantly elevate user satisfaction and increase repeat usage in a highly competitive market.

Conclusion

This study concludes that service quality, as measured by the SERVQUAL framework, significantly influences customer satisfaction and continued usage intention in the online food delivery (OFD) sector. Specifically, the dimensions of reliability and assurance play a dominant role in shaping positive customer experiences, while tangibles, responsiveness, and

empathy also contribute meaningfully. Customer satisfaction acts as a key mediator between perceived service quality and behavioral outcomes, indicating that enhancing satisfaction is crucial for ensuring customer retention and loyalty. The findings validate the applicability of the SERVQUAL model in digital service environments and affirm that OFD platforms must deliver consistent, secure, and empathetic service experiences to stay competitive, especially in emerging Indian urban centers like Vijayawada.

Scope for Further Research

While this study provides valuable insights into the relationship between service quality and customer satisfaction in the online food delivery (OFD) context, several avenues remain open for further exploration. Future research can expand the geographical scope by including multiple tier-II and tier-III cities across different states in India to enhance the generalizability of the findings. Comparative studies between metro and non-metro customers can uncover regional differences in expectations and behavior. Additionally, longitudinal research could track changes in customer satisfaction and usage patterns over time, especially in response to technological upgrades or service innovations introduced by OFD platforms. Researchers may also consider incorporating mediating or moderating variables such as perceived value, trust, brand image, or digital literacy to develop more nuanced models. Finally, qualitative methods such as interviews or focus groups could complement quantitative findings by capturing deeper customer insights, emotions, and service expectations that structured questionnaires may not fully reveal.

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