

## QuickBite Crisis Analysis – Customer Behavior, Operations, and Revenue Story

### Overview

QuickBite Express, a Bengaluru-based food-tech startup, faced a severe crisis in June 2025 following a viral food safety incident and a week-long delivery outage. The fallout created a rapid collapse in customer trust, demand, and operational performance.

This report presents a detailed analysis of how the crisis unfolded and what changed across customer behavior, order patterns, operations, and sentiment. The entire analysis is driven by SQL-based data preparation and Python-based exploratory analysis and visualization.

### Objective

The project aims to understand the crisis from multiple angles and recommend data-backed recovery strategies:

1. Identify customer segments that can be recovered and those requiring new strategies.
2. Analyze order trends across pre-crisis, crisis, and recovery phases.
3. Evaluate delivery performance, SLA compliance, and operational bottlenecks.
4. Recommend initiatives to restore trust and improve retention.
5. Study customer ratings, reviews, and sentiment shifts during the crisis.

### Executive Summary

QuickBite experienced a sudden demand collapse: revenue fell by ~64% and order volume by ~61.5%. This decline was driven entirely by reduced demand rather than pricing—average order value, discounts, and delivery fees per order remained stable.

Operational breakdown was the most significant factor: average delivery delay rose from ~8 minutes to over 20 minutes, and on-time deliveries fell from 43.6% to 12.2%. Customer sentiment deteriorated sharply, with ratings dropping from above 4.5 to around 2.5.

The company's recovery depends on operational improvements, targeted retention of high-value customers, and diversification of acquisition channels.

### Key Insights

#### Revenue and Order Trends

- Revenue dropped from ■37.6M to ■10.9M.
- Orders fell from 114K to 35K.
- The collapse was immediate and aligned with the outage and food-safety crisis.
- Stable discounts and order values confirm the decline was demand-driven.

### Customer Segmentation and Retention

- Pre-crisis, “Champions” and “Loyal Customers” drove most revenue.
- Retention fell to ~17% during the crisis.
- High-value segments showed the steepest behavioral decline.
- Buying behavior flattened across segments.

### Cancellation Behavior

- Cancellation rates nearly doubled across all hours and payment methods.
- The spike was systemic, not tied to meal-time or customer type.
- Reliable customers also began cancelling frequently.

### Operational Performance

- Delivery delays rose from 8 to 20+ minutes.
- SLA on-time performance fell from 39.5% to ~10.5%.
- Major metros experienced similar decline.
- Delivery distances remained stable; delays were operational.

### City-Level Observations

- Customer counts and order values declined 63–70% across major cities.
- Kolkata, Bengaluru, and Mumbai saw the highest increase in cancellation rates.
- Ratings declined uniformly.

### Customer Behavior Patterns

- Customers continued ordering within □200–□500.
- Frequency declined but spending capacity and ranges remained stable.

### Ratings and Sentiment Shift

- Pre-crisis ratings: 4–5 star dominance.
- Crisis ratings: ~2.5 average with strong negativity.
- Review themes shifted from freshness and quick delivery to quality, safety, and temperature concerns.

### Statistical Validation

- Delivery delay strongly reduces sentiment (correlation –0.325,  $p < 0.001$ ).
- Order value, cuisine, partner type had no significant effect.
- Long-term customers showed slight decline in sentiment.

### Methodology

#### SQL Data Preparation

Data was extracted, joined, and cleaned across multiple fact and dimension tables. Aggregations were created for orders, revenue, cancellations, delivery performance, and sentiment.

#### Python Analysis

Cleaned datasets were analyzed using Pandas, Matplotlib, and Seaborn. Visualizations focused on trends, operational gaps, customer behavior, and sentiment drivers.

#### Reporting Approach

Findings were compiled into a structured narrative prioritizing clarity and business interpretation.

#### Recommendations

#### Stabilize Operations

- Reduce delivery delays and improve routing.
- Implement real-time SLA monitoring.
- Pilot a sub-15-minute SLA in key metros.

#### Recover High-Value Customers

- Targeted reactivation for Champions and Loyal Customers.
- Free delivery credits or loyalty point matching.

#### Diversify Acquisition

- Restart referral and influencer-driven growth programs.
- Increase paid acquisition in underperforming cities.

#### Rebuild Trust

- Improve packaging quality and communicate safety protocols.
- Introduce “safety assurance” or freshness guarantees.

#### Author

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