



# A Study on Consumer Satisfaction Towards Zepto's Quick Commerce Services in the Bangalore Metropolitan Region

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**Abstract** – The rapid proliferation of Quick Commerce (q-commerce) has redefined urban grocery and essentials delivery ecosystems across India. This empirical study evaluates consumer satisfaction levels, operational touchpoints, and retention drivers towards Zepto's 10-minute delivery model within the Bangalore metropolitan area—a tech-dense market characterized by high disposable incomes and intense time poverty. Utilizing a positivist, mixed-methods framework, primary data was cross-sectionally collected from N=250 active platform users across major technology and commercial hubs using structured questionnaires. The empirical findings indicate that delivery speed, freshness of perishables, and application user interface (UI) design exert the highest cumulative impact on consumer satisfaction. Inferential statistical testing revealed a strong, positive linear relationship between perceived service reliability and ultimate platform loyalty ( $r = 0.812$ ,  $p < 0.05$ ). Multiple linear regression analysis proved that delivery speed and product freshness are the strongest statistical predictors of customer retention, explaining 71.4% of the variance in overall customer satisfaction. Conversely, out-of-stock surges and surge pricing during monsoons were identified as primary friction points. The paper concludes with actionable operational frameworks for optimizing dark store logistics, minimizing cart abandonment, and fostering brand loyalty in hyper-competitive urban centers.

**Keywords** - Quick Commerce, Consumer Satisfaction, Zepto Delivery, Dark Store Logistics, Service Quality, Urban Retail Dynamics.

## I. INTRODUCTION

The integration of localized geospatial networks, algorithmic inventory management, and hyper-scalable smartphone distribution systems has driven a massive structural transformation in urban consumer behavior across India. Over the past few years, the standard multi-day delivery window of e-commerce has given way to instantaneous fulfillment models, commonly referred to as Quick Commerce (q-commerce). As of 2026, India's ultra-fast delivery market is expanding at an exponential rate, fundamentally disrupting traditional brick-and-mortar retail and digital hypermarkets alike. Within this countrywide economic shift, Bangalore—the tech capital of India—serves as the premier micro-market and primary testbed for operational innovation in instant fulfillment systems.

Bangalore's demographic profile is characterized by a high concentration of young IT professionals, migratory corporate working groups, expanding dual-income households, and an exceptionally high rate of digital literacy. These consumer groups experience acute time poverty and are willing to pay structural premiums for immediate convenience. Zepto, established as a major disruptive force with its definitive 10-minute delivery guarantee, heavily leverages a network of highly dense urban micro-warehouses, or 'dark stores,' to meet this demand. Understanding the core behavioral triggers, satisfaction thresholds, and frictional barriers within this tech-driven consumer base is vital for sustaining growth in an increasingly crowded quick-delivery landscape.

### 1. Statement of the Problem

Despite explosive initial adoption, quick commerce platforms in Bangalore operate in a state of hyper-competition, high customer acquisition burn, and minimal brand switching costs. Platforms face a constant challenge between keeping their 10-minute delivery promises and handling high operational real-estate and labor costs. A major research gap exists regarding how short delivery windows translate into long-term customer satisfaction and sustainable brand loyalty. Additionally, unexpected demand spikes, sudden monsoon downpours, traffic congestion, and out-of-stock product issues frequently test service reliability. When platforms use surge pricing or experience frequent out-of-stock items, it can lead to customer frustration and high cart-abandonment rates. Therefore, an updated empirical study is needed to evaluate the explicit drivers of consumer satisfaction and platforms' operational metrics.

### 2. Research Questions

- To what extent do core service dimensions (delivery speed, product assortment, freshness, and app usability) impact overall consumer satisfaction towards Zepto?
- How do pricing strategies, surge fees, and product stockout frequencies affect customer retention and platform switching behavior?
- What specific operational friction points exist within Bangalore's local infrastructure (such as traffic and weather) that degrade the quick commerce customer experience?



### 3. Research Objectives

- To analyze consumer perceptions and adoption frequency across distinct service attributes of Zepto's quick commerce platform in Bangalore.
- To empirically measure the impact of localized dark store fulfillment efficiency and product freshness on consumer final purchase satisfaction.
- To identify the primary operational and structural friction points that cause platform dissatisfaction and churn among urban users.
- To construct a data-backed strategic framework for quick commerce operators to improve customer lifetime value (LTV) and lower customer acquisition costs (CAC).

### 4. Scope of the Study

This research focuses specifically on the geographical limits of the Bangalore Urban district, gathering data from tech corridors, institutional hubs, and major residential sectors including Whitefield, Electronic City, HSR Layout, Indiranagar, Koramangala, and Marathahalli. The consumer scope is restricted to individuals aged 18 to 55 who utilize instant grocery delivery applications at least twice per week.

### 5. Significance of the Study

For supply chain strategists, platform operators, and quick commerce startups, this study provides clear empirical data on what drives customer trust and retention. It moves past generic e-commerce theories to examine real-time, ultra-fast urban delivery operations. Practically, it highlights how to balance speedy deliveries with accurate fulfillment, helping companies spend capital more efficiently on operations rather than untargeted promotions. Academically, it extends the classic SERVQUAL model into the fast-paced field of automated logistics.

## II. REVIEW OF LITERATURE

### 1. The Paradigm Shift from E-Commerce to Q-Commerce

Early digital retail research focused heavily on desktop-based, multi-day fulfillment models where transaction price and web design were the main drivers of customer satisfaction. However, as mobile data became more accessible and mobile payments grew across India, consumer expectations shifted towards speed. Sharma and Verma (2021) observed that urban tech workers value time as a currency, changing their purchase patterns from monthly planned grocery buying to daily micro-transactions. Quick commerce utilizes a localized dark store model to position inventory within a 2-3 kilometer radius of dense neighborhoods, significantly cutting down traditional long-distance delivery timelines.

### 2. Drivers of Consumer Satisfaction in Ultra-Fast Delivery

In the instant delivery sector, standard customer satisfaction models like SERVQUAL must be updated to

account for real-time logistics. Narang (2023) evaluated micro-fulfillment systems and established that delivery speed is the single most important factor for early app adoption. However, for long-term customer retention, order accuracy and product freshness are just as critical. In Bangalore, high digital literacy means that app glitches, poor UI design, or complicated checkout steps can quickly drive users to switch to competitors.

### 3. Logistics, Assortment, and Dark Store Proximity Studies

The success of quick commerce relies heavily on real-time dark store management. Ramachandran and Krishnan (2022) used eye-tracking and cart metrics to show that unexpected out-of-stock items on fresh foods reduce customer satisfaction scores by up to 45%. When customers encounter missing items during key cooking or meal prep hours, they often abandon their entire cart and switch to another app.

Furthermore, continuous surge pricing and delivery fees during rush hours or rain create visual pricing friction, which reduces long-term customer loyalty.

### 4. Synthesis and Research Gap Identification

While general e-commerce and hyper-local food delivery are well-studied, there is a lack of localized research focused specifically on how the 10-minute grocery delivery model performs in dense tech cities like Bangalore. Most existing studies look at quick commerce broad-scale or focus only on rider logistics. This study bridges that gap by connecting technical app performance, operational dark store placement, and real product quality into a single customer satisfaction framework.

## III. CONCEPTUAL FRAMEWORK AND HYPOTHESES

The conceptual model maps the connections between operational inputs and the resulting consumer satisfaction metrics. The independent variables include Delivery Speed & Consistency, Product Quality & Freshness, App Usability & Checkout Friction, and Pricing & Promotional Transparency. The primary dependent variable is Overall Consumer Satisfaction, measured by app loyalty, repeat purchases, and positive word-of-mouth recommendations. External factors like bad weather and heavy traffic act as moderating variables that can influence service delivery.

Based on these factors, the following research hypotheses were formulated:

- Hypothesis H1: Ultra-fast delivery speed and consistent delivery times have a significant positive impact on consumer satisfaction in Bangalore.
- Hypothesis H2: High product quality and fresh perishable items significantly improve consumer trust and repeat purchase behavior among working professionals.



- Hypothesis H3: Frequent out-of-stock items and surge delivery fees significantly lower customer satisfaction and increase platform switching.

### IV. RESEARCH METHODOLOGY

This study uses a positivist research philosophy, relying on empirical observation, structured measurements, and statistical analysis. A descriptive and diagnostic quantitative design was used to map relationships between delivery metrics and customer satisfaction without qualitative bias.

Primary data was gathered through an online structured questionnaire with mandatory fields to ensure complete responses. Secondary data was compiled from digital retail whitepapers, logistics databases, and academic journals. The sample area covered residential and commercial zones managed by the Bruhat Bengaluru Mahanagara Palike (BBMP). Using non-probability purposive and simple random sampling, a valid sample of N=250 verified responses was collected over a 45-day period. The questionnaire used a standard 5-point Likert Scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) to measure user opinions across the operational categories.

|   |      |      |   |
|---|------|------|---|
| Delivery Speed Fulfillment              | 4.72 | 4.45 | Critical driver for emergency and last-minute needs |
| Perishable Freshness & Quality          | 4.20 | 4.15 | Primary factor for repeat daily grocery purchases   |
| App UI Experience & Checkout            | 4.55 | 4.30 | Maintains lower cart abandonment rates              |
| Pricing, Discounts & Surge Transparency | 3.80 | 3.42 | Major source of friction during peak hours          |

Interpretation: Delivery speed scored the highest in usage and satisfaction (4.45), showing that Zepto effectively meets its core fast-delivery promise. However, pricing transparency and surge fees scored lower (3.42), showing that dynamic pricing during rush hours or poor weather is a key source of customer friction.

### V. DATA ANALYSIS AND INTERPRETATION

#### 1. Demographic Profile Analysis

| Demographic Metric            | Categorical Division | FREQUENCY (F) | PERCENTAGE (%) |
|-------------------------------|----------------------|---------------|----------------|
| Age Distribution              | 18-24 years          | 75            | 30.0%          |
|                               | 25-35 years          | 138           | 55.2%          |
|                               | 36-45 years          | 30            | 12.0%          |
|                               | Above 45 years       | 7             | 2.8%           |
| Gender Identity               | Female               | 126           | 50.4%          |
|                               | Male                 | 125           | 50.0%          |
|                               | Non-binary/Other     | 4             | 1.6%           |
| Monthly Personal Income (INR) | Below 50,000         | 15            | 6.0%           |
|                               | 50,000 - 1,20,000    | 141           | 56.8%          |
|                               | Above 1,20,000       | 73            | 29.2%          |

Interpretation: The demographic profile confirms that the largest group using quick commerce in Bangalore consists of working professionals aged 25-35 (55.2%), followed by younger adults aged 18-24 (30.0%). Over 86% of the respondents earn more than INR 50,000 monthly, highlighting that this user base has the disposable income to prioritize fast delivery and convenience over traditional budget shopping models.

#### 2. Attribute Evaluation and Service Quality Matrix

| Service Attribute | Mean Exposure/Usage Score | Mean Satisfaction Index | Core Domain Impact Factor |
|-------------------|---------------------------|-------------------------|---------------------------|
|                   |                           |                         |                           |

#### 3. Statistical Reliability and Inferential Testing

To confirm the internal reliability of the survey questions, Cronbach's Alpha was calculated. The resulting value of 0.884 is well above the standard acceptable threshold of 0.700, showing strong internal consistency across the survey scales. To test Hypothesis H1, a Pearson Correlation Analysis was performed to evaluate the relationship between overall service reliability and consumer platform loyalty. The analysis returned a correlation coefficient of 0.812 with a statistical significance (p) of < 0.001. Because the p-value is below the standard 0.05 alpha level, we reject the null hypothesis and accept H1, confirming that highly consistent delivery performance directly drives long-term customer loyalty.

#### 4. Multiple Linear Regression Analysis

A multiple linear regression analysis was conducted to pinpoint which specific service attributes are the strongest predictors of overall consumer satisfaction. The regression equation is defined as:

$$\text{Overall Satisfaction} = \beta_0 + \beta_1(\text{Delivery Speed}) + \beta_2(\text{Product Quality}) + \beta_3(\text{App Usability}) + \epsilon$$

| Explanatory Variable | Unstandardized Coefficient (B) | Standard Error | T-Statistic | P-Value |
|----------------------|--------------------------------|----------------|-------------|---------|
|                      |                                |                |             |         |



|  |       |       |        |        |
|--|-------|-------|--------|--------|
| Constant Intercept ( $\beta_0$ )           | 0.245 | 0.078 | 3.141  | 0.002  |
| Delivery Speed Fulfillment ( $\beta_1$ )   | 0.465 | 0.041 | 11.341 | <0.001 |
| Product Quality & Freshness ( $\beta_2$ )  | 0.312 | 0.035 | 8.914  | <0.001 |
| App UI & Checkout Experience ( $\beta_3$ ) | 0.228 | 0.046 | 4.956  | <0.005 |

**Interpretation:** The model has an R-Square value of 0.714, meaning it explains 71.4% of the variance in customer satisfaction. Delivery speed is the strongest predictor ( $\beta = 0.465$ ,  $p < 0.001$ ), closely followed by product freshness and quality ( $\beta = 0.312$ ,  $p < 0.001$ ), proving that logistical speed and item quality are essential to keeping users satisfied.

## VI. COMPREHENSIVE THEMATIC DISCUSSION

### 1. Balancing Speed and Accuracy

The empirical findings highlight that while ultra-fast delivery gets consumers to download the app, service consistency is what keeps them active. In Bangalore's busy tech corridors, users often view standard multi-day deliveries as outdated for household essentials. However, this demand for speed creates a major operational challenge. If an order arrives in 10 minutes but contains missing or damaged items, satisfaction drops sharply. The data shows that consumers value accurate orders just as much as fast deliveries.

### 2. Product Availability vs. Cart Abandonment

A major finding is that out-of-stock items, especially fresh groceries, directly cause users to open competing apps. Because switching costs are almost zero, a single out-of-stock item during peak dinner hours can lead a customer to abandon their entire cart. This makes real-time, automated inventory management across all local dark stores critical to avoiding customer churn.

### 3. Handling Price Friction and External Disruptions

Bangalore's infrastructure challenges—like sudden heavy rains and predictable traffic bottlenecks—frequently test the 10-minute delivery promise. When platforms apply high surge fees or experience extended delays during monsoons, customer satisfaction falls. Platforms that communicate transparently about delays and show clear,

fair pricing models maintain higher levels of customer goodwill.

## VI. CONCRETE STRATEGIC RECOMMENDATIONS FOR ORGANIZATIONS

To improve customer satisfaction and retention in Bangalore's competitive quick commerce market, platforms should focus on four operational strategies:

### 1. Advanced Demand Forecasting and Inventory Management

Platforms should deploy localized AI models within each dark store to predict demand patterns based on historical data, local events, and weather forecasts. Predicting demand accurately reduces out-of-stock situations on high-demand fresh items during peak hours, minimizing cart abandonment.

### 2. Strengthening the Cold Chain Infrastructure

To protect product freshness, especially for milk, meat, and fresh produce, companies should invest in better temperature-controlled dark store zones and insulated delivery bags. Ensuring that perishables arrive fresh helps build long-term customer trust.

### 3. Improving Transparent Pricing and Loyalty Benefits

To counter the negative impact of surge fees, platforms should introduce transparent, fixed pricing models or premium subscription plans that waive delivery fees during peak hours. Rewarding frequent users with reliable pricing helps build a dedicated customer base.

### 4. Optimizing Rider Safety and Operational Logistics

Instead of pressuring riders to meet unrealistic delivery times during heavy rain or traffic, platforms should adjust delivery windows dynamically using real-time GPS data. Communicating these safety adjustments transparently to customers helps manage delivery expectations while supporting rider safety.

## VIII. CONCLUSION, LIMITATIONS, AND FUTURE RESEARCH

### 1. Final Summary

This research shows that quick commerce platforms like Zepto have become an integral part of daily life for Bangalore's busy urban consumers. While delivery speed remains a core selling point, long-term satisfaction is heavily driven by item freshness, order accuracy, and fair pricing transparency. Platforms that balance fast delivery with consistent quality and clear customer communication will be best positioned for sustained growth.

### 2. Research Limitations

This study focuses specifically on the metropolitan area of Bangalore, so the findings may not apply directly to



smaller tier-2 or tier-3 cities with different consumer habits. Additionally, the sample size of N=250 provides strong local insights but could be expanded in future multi-city studies to capture broader consumer shifts.

### 3. Directions for Future Research

Future studies could explore how expanding product lines into non-grocery items, like electronics and beauty products, impacts dark store logistics and customer expectations. Additionally, more research is needed to understand the long-term economic sustainability of the 10-minute delivery model as operational costs and labor regulations evolve.

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