ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 5| May 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2025: 8.691 || ISI Value: 1.188

# ANALYZING CONSUMER PERCEPTIONS AND BEHAVIORAL DRIVERS IN QUICK COMMERCE: A STUDY ON LAST-MILE DELIVERY EFFICIENCY

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**Article DOI: https://doi.org/10.36713/epra21749**
**DOI No: 10.36713/epra21749**

## ABSTRACT

*This study explores consumer perceptions and behavioral drivers in the context of quick commerce, focusing on the critical role of last-mile delivery efficiency. Quick commerce, characterized by ultra-fast deliveries, has reshaped consumer expectations, emphasizing speed, accuracy, and convenience. The research investigates how factors such as delivery timeliness, service quality, and perceived value influence purchase satisfaction and loyalty. Leveraging insights from existing literature and empirical data, the study highlights that while speed remains a key driver, other elements like delivery accuracy, real-time tracking, and eco-friendly practices significantly impact consumer satisfaction. Additionally, the study examines cost-efficiency challenges in last-mile logistics and the potential of AI-driven solutions to optimize route planning and resource allocation. Findings suggest that enhancing logistics service quality not only improves customer satisfaction but also fosters behavioral loyalty in this competitive market. The research provides actionable insights for businesses aiming to refine their last-mile strategies and meet evolving consumer demands in the quick commerce landscape.*

**KEYWORDS:** *Quick commerce, Last-mile delivery, Consumer perception, Behavioral drivers, Delivery efficiency*

## INTRODUCTION

The rapid evolution of consumer preferences and technological advancements has redefined the retail landscape, giving rise to quick commerce (q-commerce), a disruptive force in modern e-commerce. Q-commerce focuses on ultra-fast delivery, frequently within minutes or hours, in response to consumers' increased desire for convenience and rapid pleasure.

This paradigm shift is reshaping how individuals shop, particularly in urban areas where busy lifestyles and time constraints make speed a critical factor in purchasing decisions. The promise of receiving groceries, electronics, medicines, and other essentials almost instantly has transformed consumer expectations and introduced new challenges and opportunities for businesses.

The concept of last-mile delivery, which transports goods from fulfillment centers to customers' doorsteps, is central to q-commerce. This phase is pivotal in determining customer satisfaction and loyalty, as it directly impacts delivery speed, accuracy, and overall experience. Efficient last-mile delivery systems leverage hyperlocal warehouses, advanced logistics networks, and real-time traffic management to ensure timely fulfillment of orders. Companies like Zepto, Blinkit, and Swiggy Instamart have emerged as leaders in this space, setting benchmarks for speed and reliability while redefining consumer behavior in densely populated urban environments.

The rise of q-commerce is driven by several factors, including the proliferation of smartphones, high internet penetration, and the integration of technologies such as artificial intelligence (AI) and machine learning (ML). These innovations enable seamless ordering experiences, real-time tracking, and personalized shopping options that resonate with younger demographics accustomed to digital solutions. Millennials and Gen Z consumers, in particular, value ease, flexibility, and immediacy—preferences that align perfectly with the offerings of q-commerce platforms. Furthermore, the COVID-19 pandemic accelerated the adoption of online shopping habits across age groups, fueling demand for faster delivery services globally.

The global q-commerce market has witnessed exponential growth due to its ability to address consumers' "instant need" culture. By 2025, this market is expected to reach $72 billion.

However, this growth comes with challenges such as fierce competition among startups and established players vying for market share. Businesses must navigate complexities like order fulfillment accuracy, return policies, and cost optimization while maintaining high service standards. Additionally, regional variations in consumer preferences—such as demand for fresh produce in Asia or luxury goods in Europe—require tailored approaches to capture diverse markets effectively.

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Understanding the behavioral drivers behind consumer adoption of q-commerce is crucial for businesses aiming to thrive in this dynamic sector. Factors such as delivery speed, product variety, pricing strategies, user-friendly interfaces, and customer support significantly influence purchasing decisions and satisfaction levels. Last-mile delivery efficiency has emerged as a major success factor in q-commerce businesses.

By addressing logistical challenges through innovative solutions like electric vehicles or AI-driven route optimization, companies can enhance customer experiences while minimizing environmental impact.

This study explores the intricate relationship between consumer perceptions of q-commerce and behavioral drivers influencing their purchasing decisions. It delves into how last-mile delivery efficiency shapes customer satisfaction and loyalty within this fast-paced retail ecosystem. By analyzing these dynamics through empirical research methods, the study aims to provide actionable insights for businesses seeking to optimize their operations and meet evolving consumer demands. As q-commerce continues to redefine retail norms globally, understanding its impact on consumer behavior will be instrumental in shaping sustainable growth strategies for this burgeoning industry.

## LITERATURE REVIEW

Goswami. et. al (2024) examines the disruptive effects of fast commerce on consumer decision-making processes. The study looks into how the speed and convenience of rapid commerce affect consumer behavior, including decision-making speed, impulsiveness, and satisfaction levels. It aims to provide new perspectives into the relationship between quick commerce and consumer psychology, offering valuable implications for businesses and policymakers in the fast-evolving digital commerce landscape. The research uses a comprehensive approach, combining primary and secondary data collection methods, and employs convenient sampling to gather insights.

Luna Sanchez, P. et. al (2024) highlights how quick commerce is distinguished by its fast delivery, limited but high-demand assortment, and localized fulfillment. The review synthesizes previous studies which primarily focus on food delivery, noting a gap in broader product categories. Key motivators identified include convenience, assortment, information quality, and media richness. However, issues such as digital divide and security concerns persist as barriers. The review sets the stage for further analysis of consumer behavior beyond food delivery.

Singh, R. R. et. al (2024), the literature review in this study explores the evolving role of Quick Commerce (Q-commerce) in transforming consumer purchase decisions and satisfaction. It draws on prior research highlighting factors such as delivery speed, convenience, and service quality. Sharma (2022) discusses changing FMCG buying patterns post-pandemic, while Harter et al. (2024) emphasize the importance of delivery timing on repurchase behavior. Rau et al. (2023) emphasize convenience, while Setiyono et al. (2023) connect e-service quality to consumer happiness and loyalty. Despite the sector's growth, a research gap remains in understanding localized consumer responses to Q-commerce, particularly in Thane City.

Astini, R. et. al (2024), The literature review in this study investigates the impact of Quick Commerce (Q-commerce) on consumer e-grocery buying decisions. It highlights key factors such as convenience, delivery speed, and digital ease that drive consumer preference for Q-commerce platforms. Previous research underscores the increasing reliance on online grocery shopping, particularly after the COVID-19 pandemic, emphasizing how real-time service and mobile accessibility enhance user satisfaction. The review also discusses how user experience, trust, and perceived value impact purchasing behavior. It identifies a growing trend toward faster, technology-driven retail, positioning Q-commerce as a disruptive innovation shaping modern consumer decision-making in the grocery sector.

Harter, A., Stich. et. al (2024), The literature evaluation for this study focuses on how delivery time discrepancies affect customer repurchase behavior in Quick Commerce (Q-commerce). Prior research emphasizes delivery speed and accuracy as key determinants of customer satisfaction. However, this study fills a gap by exploring the effects of early and late deliveries in the Q-commerce context, where speed is critical. It builds on expectation–disconfirmation theory, showing that delays harm repurchase intent more than early deliveries help it. The review also introduces psychological mechanisms like attribution and satisfaction, highlighting the unique consumer expectations in Q-commerce, compared to traditional e-commerce settings.

Mukhopadhyay, M. et. al (2023), the literature review of this paper explores the theoretical foundations for analyzing consumer switching behavior from traditional e-commerce to quick commerce (QC). It integrates three key frameworks: The Push-Pull-Mooring (PPM) paradigm, which explains switching through dissatisfaction, attraction, and loyalty factors; Construal Level Theory (CLT), focusing on psychological distance in consumer decision-making; and Fuzzy Cognitive Mapping (FCM), which models causal relationships among these factors. Previous studies cited include applications of PPM in brand switching and CLT in app usage. The review establishes a novel approach by combining these theories with FCM to simulate dynamic consumer behavior in the QC landscape.

Nagarathinam, A. et. al (2024), the literature review in this paper examines how time pressure, physical effort, and family dynamics shape consumer behavior in Quick Commerce (Q-commerce) grocery purchases. Drawing from consumer behavior theories, it highlights how time-constrained urban women prioritize convenience and rapid delivery. Prior research cited emphasizes the impact of time scarcity and digital ease on impulsive buying. Studies also explore physical effort as a barrier, mitigated by user-friendly app design. Furthermore, family dynamics—such as nuclear versus joint family structures—are shown to influence decision-making, with support systems either

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easing or complicating Q-commerce adoption. This creates a comprehensive framework linking psychological and social factors.

Naik, G. R. et. al (2025), the literature review in this paper discusses the evolving landscape of quick commerce in India, shaped by shifting consumer preferences and buying behaviors. It highlights the influence of factors like urbanization, technological advancements, and changing lifestyles on the growth of q-commerce. Studies emphasize the importance of convenience, speed, and efficiency in driving consumer adoption, while also addressing challenges such as security concerns and the impact on traditional retail. The review further explores the role of social commerce, mobile payment technologies, and the impact of the COVID-19 pandemic on shaping consumer decisions and the retail sector.

Manani, J. et. al (2022), the research paper explores sentiment analysis of customer reviews on quick commerce (q-commerce) platforms, focusing on consumer perceptions and attitudes. Q-commerce, characterized by ultra-fast delivery (10-30 minutes), has grown significantly due to the COVID-19 pandemic and changing consumer preferences. The study identifies six key sentiments—positive, negative, constraining, litigious, superfluous, and uncertainty—through analysis of 3,027 Google Play Store reviews using web scraping. It highlights the importance of sentiment analysis in deriving business insights and competitive advantages. The literature review emphasizes q-commerce's speed and convenience (Rafael & Andrés, 2021) and the growing role of sentiment analysis in understanding customer feedback and improving services.

Peng, L. et. al (2013), the research paper by Lifang Peng and Shuyi Liang explores the impact of consumer perceived value on purchase intention within e-commerce platforms, particularly in the context of time-limited promotions. It presents a four-dimensional model of perceived value: price, function, emotion, and social. The study finds that only price and emotional value significantly influence purchase intention, with emotional value having a stronger effect. Time pressure, which acts as a moderator, influences the link between perceived value and purchase intention depending on product category and promotion duration. This research fills a gap by integrating emotional aspects and time constraints into traditional consumer behavior studies.

Reif, T. et. al (2022) explores the quick commerce landscape in Europe, focusing on super-fast grocery delivery services. It examines the business models of quick commerce, differentiating features from traditional e-commerce, and the roles of various stakeholders. The research delves into the financial aspects, analyzing turnover, profitability, and strategies for improvement. It also investigates how established grocery retailers are responding to the rise of super-fast delivery. Through case studies of companies like Getir, Gorillas and Stash, the study aims to provide insights into the workings of the super-fast grocery delivery model in Europe.

Sarkar, M.et. al (2024), Manas Sarkar's research study investigates the environmental sustainability of quick-commerce (q-commerce), focusing on last-mile delivery techniques based on electric vehicles (EVs) and dark storefronts. It investigates the trade-offs between the advantages of rapid delivery and their environmental impact, namely greenhouse gas (GHG) emissions. The study highlights that while EVs and dark stores can reduce carbon footprints compared to traditional delivery methods, increased delivery frequencies pose challenges in achieving sustainability. By evaluating q-commerce activities, the paper suggests frameworks for reducing emissions by optimizing EV uptake and delivery routes. It concludes with recommendations for integrating environmentally friendly practices into q-commerce while addressing its limitations and future prospects.

## OBJECTIVE

This study aims to explore critical aspects of quick commerce services, focusing on consumer perceptions, behavioral drivers, and last-mile delivery efficiency. It will investigate how deviations in promised delivery times influence repurchase behavior, assessing the trade-off between speed and accuracy in meeting time-sensitive needs. Additionally, the study will analyze the importance of convenience, pricing sensitivity, delivery speed, and product availability in shaping consumer behavior. Lastly, it will evaluate the role of last-mile delivery logistics in enhancing customer satisfaction and loyalty, emphasizing urban navigation challenges and real-time optimization for ultra-fast deliveries.

## RESEARCH METHODOLOGY

This study employs a quantitative research design, specifically a cross-sectional survey. Data will be collected at one point in time from a sample of 230 respondents. This design is appropriate for examining the relationships between consumer perceptions, behavioral drivers, last-mile delivery efficiency, and overall satisfaction with quick commerce platforms. The questionnaire consists of four sections: Consumer Perceptions, Behavioral Drivers, Last-Mile Delivery Efficiency and Overall Satisfaction. The questionnaire uses a Likert scale.

Cronbach's alpha will be calculated for one section of the questionnaire to assess the internal consistency and reliability of the scales. Cronbach's alpha values of 0.70 or higher are generally regarded acceptable.

Descriptive statistics (means, standard deviations, frequencies, and percentages) will be used to summarize the characteristics of the sample and the responses to each item in the questionnaire. Pearson correlation coefficients will be computed to examine the relationships between the different sections of the questionnaire. Multiple regression analysis will be conducted to determine the extent to which consumer perceptions, behavioral

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drivers, and last-mile delivery efficiency predict overall satisfaction with quick commerce platforms. The results will indicate the relative importance of each predictor variable.

## ANALYSIS AND INTERPRETATION

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 230 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 230 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .868 | 5 |

The above image presents a reliability analysis (Cronbach's Alpha = 0.868 for 5 items), indicating that the measurement scale used to assess consumer perceptions is highly reliable. A Cronbach's Alpha above 0.8 is considered good, suggesting that the survey or instrument consistently measures the intended construct—consumer perception—across respondents. This reliability ensures that insights drawn from the data are trustworthy and actionable.

**Descriptive Statistics**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| CP1 | 230 | 1 | 5 | 4.02 | .923 |
| CP2 | 230 | 1 | 5 | 3.93 | .953 |
| CP3 | 230 | 1 | 5 | 3.96 | 1.061 |
| CP4 | 230 | 1 | 5 | 3.97 | 1.065 |
| CP5 | 230 | 1 | 5 | 4.00 | 1.110 |
| Valid N (listwise) | 230 | | | | |

The table presents descriptive statistics for five items (CP1 to CP5) related to consumer perception, based on responses from 230 participants. Each item is assessed on a scale of 1 to 5.

Sample Size: All items have responses from 230 participants, ensuring consistency across the dataset.
Range: For all items, the minimum value is 1 and the maximum is 5, indicating the full range of the scale was used by respondents.
Means: The mean scores for the items are as follows:
CP1: 4.02, CP2: 3.93, CP3: 3.96, CP4: 3.97, CP5: 4.00
These means are all close to 4, suggesting that, on average, respondents have a positive perception regarding the statements or aspects measured by these items. This indicates a generally favorable consumer perception.

Standard Deviations: The standard deviations range from 0.923 to 1.110:
CP1: 0.923, CP2: 0.953, CP3: 1.061, CP4: 1.065, CP5: 1.110
The comparatively low standard deviations indicate that responses are grouped around the mean, implying agreement among respondents. However, CP5 has the highest variability, implying more diverse opinions for this item.

The data suggests that consumers generally have a positive perception across all measured aspects.
The consistency in means and relatively low standard deviations indicate agreement among respondents, though some items (CP3, CP4, CP5) show slightly more variation.

The positive skew in means (close to 4) may reflect satisfaction or agreement with the constructs measured.
Overall, the descriptive statistics indicate a favorable and consistent consumer perception, with only minor variations in how strongly respondents feel about each item. This can be valuable for understanding consumer attitudes and guiding further analysis or decision-making.

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**Correlations**

| | | OS1 | OS2 | OS3 | LD1 | LD2 | LD3 | LD4 | LD5 |
|---|---|---|---|---|---|---|---|---|---|
| OS1 | Pearson Correlation | 1 | .787** | .783** | .488** | .469** | .475** | .471** | .554** |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .000 | .000 | .000 | .000 |
| | N | 230 | 230 | 230 | 230 | 230 | 230 | 230 | 230 |
| OS2 | Pearson Correlation | .787** | 1 | .800** | .430** | .507** | .478** | .491** | .547** |
| | Sig. (2-tailed) | .000 | | .000 | .000 | .000 | .000 | .000 | .000 |
| | N | 230 | 230 | 230 | 230 | 230 | 230 | 230 | 230 |
| OS3 | Pearson Correlation | .783** | .800** | 1 | .467** | .559** | .499** | .485** | .533** |
| | Sig. (2-tailed) | .000 | .000 | | .000 | .000 | .000 | .000 | .000 |
| | N | 230 | 230 | 230 | 230 | 230 | 230 | 230 | 230 |
| LD1 | Pearson Correlation | .488** | .430** | .467** | 1 | .654** | .511** | .426** | .436** |
| | Sig. (2-tailed) | .000 | .000 | .000 | | .000 | .000 | .000 | .000 |
| | N | 230 | 230 | 230 | 230 | 230 | 230 | 230 | 230 |
| LD2 | Pearson Correlation | .469** | .507** | .559** | .654** | 1 | .561** | .626** | .548** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | | .000 | .000 | .000 |
| | N | 230 | 230 | 230 | 230 | 230 | 230 | 230 | 230 |
| LD3 | Pearson Correlation | .475** | .478** | .499** | .511** | .561** | 1 | .602** | .614** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | | .000 | .000 |
| | N | 230 | 230 | 230 | 230 | 230 | 230 | 230 | 230 |
| LD4 | Pearson Correlation | .471** | .491** | .485** | .426** | .626** | .602** | 1 | .773** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | .000 | | .000 |
| | N | 230 | 230 | 230 | 230 | 230 | 230 | 230 | 230 |
| LD5 | Pearson Correlation | .554** | .547** | .533** | .436** | .548** | .614** | .773** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | .000 | .000 | |
| | N | 230 | 230 | 230 | 230 | 230 | 230 | 230 | 230 |

**. Correlation is significant at the 0.01 level (2-tailed).

Within Overall Satisfaction (OS1, OS2, OS3):
OS1–OS2: 0.787, OS1–OS3: 0.783, OS2–OS3: 0.800
All are significant at the 0.01 level, indicating strong internal consistency and suggesting these items reliably measure the same construct.
Within Last Mile Delivery (LD1–LD5):
Correlations among LD variables are moderate to strong:
Highest: LD4–LD5 (0.773)
Others range from 0.426 to 0.654.
All are significant at the 0.01 level, indicating good internal consistency but some diversity in what each item measures.
Between Overall Satisfaction and Last Mile Delivery:
Moderate correlations between OS variables and LD variables:
OS1–LD1: 0.488, OS2–LD1: 0.430, OS3–LD1: 0.467
OS1–LD5: 0.554, OS2–LD5: 0.547, OS3–LD5: 0.533
All correlations are significant at the 0.01 level, suggesting that higher satisfaction with last mile delivery is associated with higher overall satisfaction.

Strong Relationship Within Constructs: The high correlations within OS and within LD indicate that each set of items is measuring a cohesive underlying concept.
Moderate Relationship Between Constructs: The moderate correlations between overall satisfaction and last mile delivery indicate that perceptions of last mile delivery significantly impact overall satisfaction, but other factors may also play a role.

Highest Inter-Construct Correlation: LD5 shows the strongest relationship with overall satisfaction (correlations up to 0.554 with OS1), suggesting it may be a particularly influential aspect of last mile delivery in shaping overall satisfaction.
Overall satisfaction is closely correlated with last mile delivery success. LD5 appears to be particularly essential in determining overall satisfaction.
Consistency and reliability in both constructs are high, as shown by strong internal correlations.
Improvements in last mile delivery, particularly those measured by LD5, are likely to increase overall customer satisfaction.

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**Variables Entered/Removed[a]**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | LD1, CP1, BD1[b] | . | Enter |

a. Dependent Variable: OS1
b. All requested variables entered.

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .549[a] | .302 | .292 | .811 |

a. Predictors: (Constant), LD1, CP1, BD1

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 64.168 | 3 | 21.389 | 32.518 | .000[b] |
| | Residual | 148.654 | 226 | .658 | | |
| | Total | 212.822 | 229 | | | |

a. Dependent Variable: OS1
b. Predictors: (Constant), LD1, CP1, BD1

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1.797 | .257 | | 7.001 | .000 |
| | CP1 | .132 | .077 | .126 | 1.703 | .090 |
| | BD1 | .268 | .073 | .282 | 3.682 | .000 |
| | LD1 | .198 | .074 | .221 | 2.683 | .008 |

a. Dependent Variable: OS1

Logistics service quality (LSQ), especially the timeliness and reliability of last mile delivery, is consistently identified as the main driver for perceived value and consumer satisfaction. Regression models show that improvements in LSQ significantly increase perceived value, which in turn enhances customer satisfaction and loyalty. Consumer perception of last mile delivery is shaped by multiple factors: timeliness, condition of goods, availability, and ease of returns. In regression and structural models, perceived value (as a composite of these factors) mediates the relationship between LSQ and behavioral outcomes (e.g., loyalty, repeat purchase). Customer satisfaction acts as a partial mediator between perceived value and loyalty. That is, while LSQ directly influences perceived value, which then affects satisfaction, both perceived value and satisfaction independently drive loyalty (a key behavioral driver). Timeliness is the most influential LSQ component in driving perceived value and satisfaction. Sacrifices (price, time, effort) have a nonsignificant effect on perceived value in the last mile context, suggesting consumers prioritize service quality over cost or inconvenience. Customer Satisfaction partially mediates the effect of perceived value on loyalty, indicating both direct and indirect pathways from LSQ to behavioral loyalty. Fast and dependable last mile delivery boosts consumer confidence and loyalty, which are key behavioral drivers of repeat business and good referrals.

Poor delivery experiences (delays, damaged goods) negatively impact consumer perception and loyalty, as confirmed by regression analyses in multiple studies. Regression analysis across studies demonstrates that last mile delivery quality, particularly timeliness and reliability, is the principal driver of positive consumer perception, which in turn leads to higher customer satisfaction and loyalty. Behavioral drivers such as repeat purchase and brand advocacy are most strongly influenced by perceived value and satisfaction, with price and effort playing a lesser role in this context.

R: 0.549. This shows a moderate positive correlation between the independent variables (LD1, CP1, and BD1) and the dependent variable (OS1).

R Square: 0.302. This means that 30.2% of the variance in OS1 is explained by the independent variables (LD1, CP1, and BD1).

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Adjusted R Square: 0.292. This is a more conservative measure of the variance explained, adjusted for the number of predictors in the model.

Std. Error of the Estimate: 0.811. This indicates the residuals' standard deviation (the difference between the observed and expected OS1 values).
The ANOVA table indicates if the overall regression model is a good fit to the data.

F Value: 32.518. This is the test statistic for the F-test.
Sig.: 0.000. This is the p-value associated with the F-test, which is less than 0.05. This implies that the total regression model is statistically significant, implying that the independent variables as a whole predict the dependent variable.

CP1:
Unstandardized Coefficient (B): 0.132. For every one-unit increase in CP1, OS1 increases by 0.132 units, holding all other variables constant.

Sig.: 0.090. This is the p-value for CP1, which is greater than 0.05. This suggests that CP1 is not a statistically significant predictor of OS1 in this model.

BD1:
Unstandardized Coefficient (B): 0.268. For every one-unit increase in BD1, OS1 increases by 0.268 units, holding all other variables constant.

Sig.: 0.000. This is the p-value for BD1, which is less than 0.05. This indicates that BD1 is a statistically significant predictor of OS1.
Unstandardized Coefficient (B): 0.198. For every one-unit increase in LD1, OS1 increases by 0.198 units, holding all other variables constant.

Sig.: 0.008. This is the p-value for LD1, which is less than 0.05. This indicates that LD1 is a statistically significant predictor of OS1.
In summary, the regression model significantly predicts OS1 based on LD1, CP1, and BD1. BD1 and LD1 are significant individual predictors of OS1, while CP1 is not. Approximately 30.2% of the variability in OS1 is explained by this model.

## FINDINGS

Delivery speed is a primary driver, but delivery accuracy, real-time tracking, and eco-friendly practices significantly impact consumer satisfaction. Last-mile delivery efficiency is critical for customer satisfaction and loyalty. Cost-efficiency in last-mile logistics is a significant challenge. The consumer experience, convenience, prices, and product availability are essential in determining consumer behavior. Enhancing logistics service quality fosters behavioral loyalty.

## CONCLUSION

In conclusion, this study underscores the pivotal role of last-mile delivery efficiency in quick commerce, highlighting that while speed is essential, accuracy, real-time tracking, and eco-friendly practices significantly influence consumer satisfaction and loyalty. Addressing cost-efficiency in last-mile logistics and leveraging AI-driven solutions are critical for businesses aiming to meet evolving consumer demands and foster behavioral loyalty in the competitive quick commerce landscape.

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