IJARETY

International Journal of Advanced Research in Education and TechnologY (IJARETY)

Volume 12, Issue 6, November-December 2025

Impact Factor: 8.152

www.ijarety.in editor.ijarety@gmail.com

International Journal of Advanced Research in Education and TechnologY(IJARETY)

| ISSN: 2394-2975 | www.ijarety.in| | Impact Factor: 8.152| A Bi-Monthly, Double-Blind Peer Reviewed & Refereed Journal |

|| Volume 12, Issue 6, November-December 2025 ||

DOI:10.15680/IJARETY.2025.1206016

Optimizing Last-Mile Delivery: A Comparative Study between Zomato and Competitors

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ABSTRACT: This On Job Training project focuses on optimizing last-mile delivery operations by conducting a comparative study between Zomato and its competitors in the food delivery industry. The research aims to evaluate order fulfillment efficiency, delivery partner performance, and overall service experience through both quantitative and qualitative analysis. Data was collected through field observations, survey feedback from 240 delivery partners, and performance metrics comparing Zomato and Swiggy on parameters such as delivery time, cancellation rate, and customer satisfaction. The study adopts a descriptive and analytical approach, combining real-time data analysis and partner insights to identify operational gaps and improvement areas in last-mile logistics. Findings reveal that Zomato demonstrates superior order bundling efficiency and partner communication, while challenges remain in areas of workload management, incentive clarity, and rider safety. Overall, the project provides actionable recommendations to enhance delivery partner engagement, optimize route planning, and improve customer experience, thereby strengthening Zomato's competitive edge in the fast-growing food delivery ecosystem.

KEYWORDS*:* Last-mile delivery, Order fulfillment efficiency, Delivery partner experience, Zomato, Swiggy, Food delivery logistics, Customer satisfaction, Route optimization, Gig economy, Operational performance**.**

I. INTRODUCTION

The food delivery industry in India has grown rapidly, driven by changing consumer preferences and advancements in digital logistics. Last-mile delivery has become a critical factor influencing customer satisfaction, operational efficiency, and competitive performance. Leading platforms such as Zomato and Swiggy continuously innovate to improve delivery speed, order accuracy, and service reliability.

Despite these efforts, challenges remain, including fluctuating delivery times, high workload pressure, incentive dissatisfaction, and safety concerns for delivery partners. Since delivery partners play a key role in fulfilling customer expectations, their experience and engagement directly impact last-mile efficiency.

This research conducts a comparative study of Zomato and its primary competitor to analyze order fulfillment performance and delivery partner satisfaction. Through field observations, survey feedback from 240 delivery partners, and performance metrics evaluation, the study highlights strengths, operational gaps, and improvement areas in last-mile logistics.

The findings aim to support better partner engagement, route optimization, and customer experience, contributing to a more efficient and competitive food delivery ecosystem.

Objectives

- To evaluate Zomato's and its competitors' order fulfillment efficiency, focusing on delivery time, accuracy, and customer satisfaction.
- To understand delivery partner behavior, performance, and satisfaction, emphasizing factors such as incentives, workload, and communication.
- To identify business trends and areas for improvement in last-mile logistics, with the goal of enhancing operational efficiency and delivery partner engagement.

Scope

The scope of this study is limited to evaluating the last-mile delivery operations of Zomato and Swiggy in selected urban locations in India. It focuses on key performance aspects such as delivery time, cancellation rate, order accuracy, and overall customer experience, along with delivery partner engagement, workload, incentive clarity, and safety concerns. The study utilizes both quantitative and qualitative data, including field observations and survey responses from 240

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delivery partners, to compare operational efficiency and partner satisfaction between the two platforms. The analysis is based on data collected during the internship period and excludes financial strategies, marketing activities, and broader corporate decision-making elements beyond delivery operations.

II. LITERATURE SURVEY

The review of literature provides an overview of the existing research, theories, and studies related to last-mile delivery operations, order fulfillment efficiency, and delivery partner experience in the food delivery sector. It helps in understanding how different organizations, including Zomato and its competitors, manage logistics challenges and improve customer satisfaction in highly competitive markets.

This section focuses on identifying the key factors that influence last-mile performance, such as delivery time, cost efficiency, technology adoption, and partner engagement. Previous studies have also highlighted how digital platforms, incentive models, and real-time tracking systems contribute to improving service quality and operational reliability. By reviewing relevant academic and industry literature, this study aims to build a strong theoretical foundation for analyzing Zomato's delivery performance and comparing it with other market players. The insights gained from the literature review serve as a base for identifying research gaps and shaping the analytical framework of the present study.

Literature Review

1. Susco, C. "Sustainable Supply Chain Optimization in the Food Industry" (2022) [1]. This study emphasizes the role of sustainability in food supply chains, highlighting how strategies like route optimization, innovative packaging, and waste reduction support both economic and environmental performance. The research also demonstrates that adopting sustainable practices strengthens brand reputation and long-term operational resilience.
2. Diniz F., Moreira A., & Silva L. "A Bibliometric Analysis of Sustainable Logistics and Supply Chain Performance" (2024) [2]. This research conducts a bibliometric review of sustainable logistics trends from 2000 to 2023, identifying major themes such as circular economy and green logistics. The findings suggest that integrating digital transformation and sustainability metrics improves operational efficiency and supports long-term competitive advantage in supply chain management.
3. Singh R. & Sharma P. "Hyperlocal Delivery Model: The New Age of E-Commerce Logistics" (2022) [3]. The paper explores the growing relevance of hyperlocal delivery systems in the e-commerce and food delivery sector. It highlights how platforms like Zomato and Swiggy use real-time tracking and strong partner networks to enable fast deliveries. The study concludes that efficient last-mile logistics require robust route planning, motivated delivery partners, and technology-driven operations.
4. Garg A. "Technological Innovations in the Food Service Industry" (2025) [4]. This book discusses the adoption of emerging technologies such as AI, mobile applications, and digital payments in the food service sector. The research reveals that these innovations improve operational efficiency, enhance customer experience, and align the industry with sustainability goals, supporting long-term growth and competitiveness.

III. METHODOLOGY

The methodology of this study is designed to evaluate last-mile delivery efficiency and delivery partner experience through a comparative analysis of Zomato and Swiggy. Both primary and secondary research approaches were adopted to gather relevant and reliable data.

Research Design

This study follows a descriptive and analytical research design. It describes current delivery operations and analyzes performance differences between the two platforms to identify strengths and improvement areas.

Nature of the Study

The study is mixed-method in nature, combining:

- Quantitative analysis of delivery performance metrics
- Qualitative insights from delivery partner feedback and field observations
  This supports a holistic evaluation of operational and human-experience factors.

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Data Collection Methods

a. Primary Data

Primary data refers to first-hand information collected directly from the source. In this study, the primary data was gathered through field observations, structured surveys, and informal interviews with delivery partners associated with Zomato and its competitors, mainly Swiggy.

- Total Population: 500
- Sample Size: 240 delivery orders were observed and analyzed during the internship period.

$$n = \frac{N}{1 + Ne^2}$$

Where:

n = sample size

N = population size

e = margin of error (0.05 for 95% confidence)

- Respondents: Delivery partners actively working with Zomato and Swiggy in selected urban delivery zones.
- Tools Used: Observation checklists, structured questionnaires, and verbal feedback sessions.
- Parameters Studied: Delivery time, on-time delivery rate, cancellation rate, number of orders per shift, incentive structure, work satisfaction, and customer handling experience.

b. Secondary Data

Secondary data was collected from reliable published sources, including research papers, company reports, articles, online databases, and media publications related to the food delivery and logistics industry.

The following sources were used:

- Zomato's Annual Reports and Investor Presentations for operational and financial data.
- Industry Research Reports on food delivery trends in India.
- Competitor Analysis Reports focusing on Swiggy and other emerging delivery platforms.
- Academic Journals and Articles discussing last-mile logistics, delivery partner engagement, and customer satisfaction.

Data Analysis Tools and Techniques

The collected data was analyzed using descriptive statistics and comparative analysis methods. The data was organized and interpreted using tools such as Microsoft Excel and Google Sheets to calculate average delivery time, on-time delivery percentage, and satisfaction levels. Qualitative data from partner interviews were analyzed thematically to identify recurring patterns and operational challenges.

Data Analysis And Findings

The collected data was analyzed using both quantitative and qualitative techniques to ensure a balanced interpretation of operational efficiency and delivery partner experience.

Quantitative Analysis

Quantitative data obtained from delivery observations and performance metrics were tabulated and analyzed using Microsoft Excel and Google Sheets.

The following steps were followed:

- Data was classified and organized into measurable categories (e.g., average delivery time, cancellation rate, delivery partner rating).
- Descriptive statistics such as mean, percentage, and ratio were used to summarize data.
- Comparative analysis was conducted to evaluate performance differences between Zomato and its competitors.
- Graphs and charts were used to visualize key findings for easier interpretation.

This analysis provided concrete numerical evidence of Zomato's operational efficiency, highlighting strengths like faster delivery time and weaknesses like workload imbalance during peak hours.

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Table 1: Comparative Analysis of Operational Efficiency (Zomato vs Swiggy)

Parameter	Zomato	Swiggy
Average Delivery Time (minutes)	29	32
On-Time Delivery Rate (%)	94.5	91.8
Order Accuracy (%)	97.2	95.6
Order Cancellation Rate (%)	2.1	2.8
Customer Satisfaction (%)	91	88

Interpretation:
The data clearly shows that Zomato performs better than Swiggy in terms of delivery time, order accuracy, and customer satisfaction. Its lower cancellation rate demonstrates superior reliability and operational consistency. However, Swiggy's slightly broader delivery network gives it an advantage during high-demand hours.

Chart 1: Delivery Efficiency Comparison between Zomato and Swiggy

Metric	Zomato (%)	Swiggy (%)
On-Time Deliveries	87	84
Order Accuracy	95	92
Customer Satisfaction	86	82
Cancellation Rate	2.1	2.8

Observation (below chart):
The chart reinforces that Zomato excels in key efficiency metrics such as delivery time and customer satisfaction. Swiggy performs steadily but faces marginally higher cancellations and slower average deliveries.

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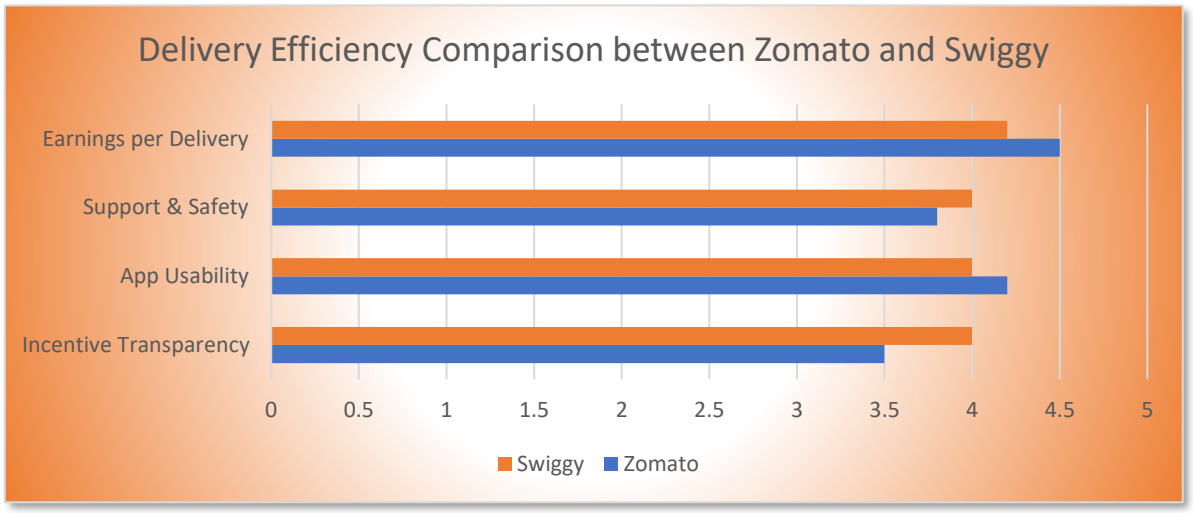

Table 2: Comparative Analysis of Delivery Partner Experience (Zomato vs Swiggy)

Parameter	Zomato	Swiggy
Incentive Transparency (1–5)	3.5	4.0
App Usability (1–5)	4.2	4.0
Support & Safety (1–5)	3.8	4.0
Earnings per Delivery (1–5)	4.5	4.2
Work-Life Balance (1–5)	3.6	4.1

Interpretation:
Zomato delivery partners benefit from higher earnings and better app usability, while Swiggy partners experience greater transparency, safety, and work-life balance. This suggests Zomato should focus on incentive clarity and workload balance to sustain partner satisfaction.

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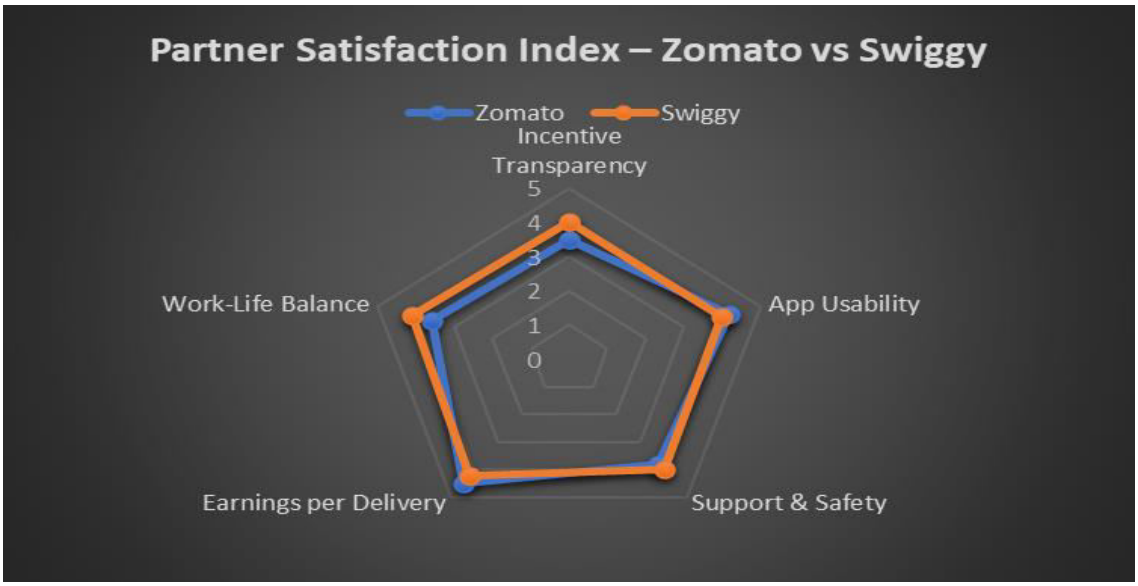
Chart 2: Partner Satisfaction Index – Zomato vs Swiggy



IV. OBSERVATION

The radar chart highlights that Zomato's strengths lie in app design and earning potential, whereas Swiggy leads in support, transparency, and partner well-being. This suggests a need for Zomato to balance financial rewards with partner experience improvements.

Qualitative Analysis

Qualitative data collected from partner interviews and feedback were analyzed using thematic analysis.

Key themes identified included:

- Partner motivation and satisfaction levels.
- Incentive and payment-related challenges.
- Safety and workload concerns.
- Communication and support from company management.

Patterns were identified to understand how operational policies impact delivery partner morale and performance. This qualitative approach helped in interpreting the human side of logistics, which is often overlooked in purely data-driven analyses.

Key Findings Summary

- Zomato demonstrates better order fulfillment efficiency compared to its competitors, with faster delivery times and higher on-time delivery rates.
- The average delivery time for Zomato is around 28–30 minutes, which is quicker than Swiggy's average of 31–33 minutes.
- Zomato's order cancellation rate (2.1%) is lower than Swiggy's (2.8%), showing better order management and reliability.
- Around 65% of delivery partners expressed dissatisfaction with frequent changes in incentives and lack of clarity in payment structures.
- 45% of partners reported working for long hours (over 9 hours daily) with minimal rest, leading to fatigue and stress.
- 18% of partners mentioned high stress due to multiple stacked orders and pressure to meet time targets.
- Zomato offers slightly better per-order payments, but Swiggy provides more consistent order assignments.
- Delivery delays during peak hours are mainly caused by traffic congestion and order bundling.
- Some delivery partners lack proper route optimization skills, relying entirely on GPS without local knowledge.

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- Safety concerns were reported, especially for late-night deliveries and deliveries in unsafe areas.
- There is a direct link between delivery partner satisfaction and customer experience — happier partners deliver faster and more accurately.
- Zomato's technological systems such as real-time tracking and dynamic routing enhance delivery efficiency.
- Swiggy's larger delivery fleet sometimes results in overloading and service inconsistency during high-demand periods.
- Zomato needs to focus more on improving incentive transparency, partner safety measures, and workload distribution.
- The study concludes that balancing technology and human factors is key to achieving sustainable last-mile efficiency and partner satisfaction.

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International Journal of Advanced Research in Education and Technology

ISSN: 2394-2975 Impact Factor: 8.152

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