

DATA ANALYSIS FOR INSTANT DELIVERY APPLICATIONS DATASET USING TABLEAU

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ABSTRACT - This dataset provides detailed information on instant delivery apps operating in various Indian cities. It includes key attributes such as app names, categories, user ratings, delivery time, discounts, shipping fees, payment methods, and customer satisfaction levels. The data helps explore trends in user app performance, and service behavior, efficiency. By analyzing this dataset, we aim to understand how factors like delivery speed, discounts, and digital payments influence customer satisfaction. The insights can support decision-making for app developers, marketers, and businesses in the fast-growing quickcommerce sector in India.

1.INTRODUCTION

LITERATURE SURVEY:

Bonini, Tiziano, et al. analysed how food delivery workers use private chat groups on messaging platforms like WhatsApp, Telegram, Messenger, and WeChat to create supportive networks among themselves. The paper also contributes to affordance theory by showing how digital tools are shaped by users' practices within specific cultural contexts. They concluded that Private chat groups empower food delivery workers to reclaim agency, foster solidarity, and resist the limitations imposed by delivery platforms.[1]

Dablanc, Laetitia, et al. analysed how digital marketplaces are disrupting urban freight services

through the rise of instant delivery platforms that connect senders, couriers, and recipients for ondemand delivery within two hours. They Concluded that The rapid growth of instant deliveries poses a significant challenge to urban infrastructure, potentially intensifying congestion and straining kerbside space in already busy city centers. [2]

Mello, C.A., et al. analysed the link between delivery fees and courier earnings in eight Brazilian cities, using data from major instant delivery apps. Through linear regression analysis, it reveals variations in fixed and variable fees across cities.They Concluded that the peer-to-peer delivery model in Brazil leads to long work hours and low earnings, making it difficult for couriers to achieve even minimum wage.[3]

Aleksandrov, Andrey, et al. analysed the impact of Google Play Instant, a new delivery model in the Android ecosystem that allows users to access apps instantly without full installation. The study examines both theoretical and practical aspects of this model. They concluded that Google Play Instant is easy to implement with minimal changes, though limitations exist for large or cross-platform apps, and broader testing is needed for comprehensive insights. [4]

Madane, Krushna, et al. analysed the development of an Android app that connects users directly with manufacturers, eliminating third-party sellers to offer a more affordable and efficient shopping experience. The ultimate goal is to deliver a simple yet powerful solution that meets user needs with high-quality products directly from the source. They Concluded that this Android-based application



simplifies daily shopping by offering multiple services on one platform, enhancing convenience and saving time for users—even in remote areas.[5]

Pal, Shish, et al.analysed consumer perceptions of Zomato's newly introduced 10-minute instant delivery model, based on data from 178 respondents in Haryana. Findings show mixed reactions: while over 40% believe hot food can be delivered within 10 minutes, only 18% think it can be hygienically delivered. While the model has potential benefits, it also raises serious concerns about safety, quality, and practicality. They concluded that the

consumer satisfaction through timely delivery, food quality, responsive service, and advanced technologies like user-friendly apps and AI-driven personalization.[6]

Wen, Haomin, al. analysed the first et comprehensive survey on service Route & Time Prediction (RTP) in instant delivery services, a key factor in improving customer satisfaction and reducing operational costs. It also identifies current research gaps and suggests future directions. This work aims to guide and accelerate progress in the RTP research domain.They Concluded а foundational survey of deep learning approaches for route and time prediction in instant delivery, aiming to advance research and innovation in this critical domain.[7]

Galindo-Muro, Ana Bricia, et al analysed the electrification in instant deliveries to reduce CO₂ emissions in urban areas by proposing an optimal route-planning solution for electric bikes. The model prioritizes energy efficiency by considering road slope, distance, and cycling infrastructure. This contributes to a novel energy-based routing sustainable approach for urban delivery systems. They Concluded that an energy-optimized instant delivery solution using real-world data and simulations from Mexico City, demonstrating improved route efficiency but noting simulation time as a limitation for larger networks.[8]

Huang, Chengyuan, et al. analysed customer preferences for autonomous delivery vehicles (ADVs) versus traditional couriers, focusing on factors like cargo damage, delivery price, and usage frequency. Using a random parameter logit model with interactions. captures it customer heterogeneity and attribute effects. A statedpreference survey in China with 309 responses revealed significant influences of gender, privacy, income, and order habits. The findings help logistics providers better target potential ADV users. They concluded that this study offers a foundational understanding of customer preferences for ADVs in instant delivery, guiding future research and practical implementation while highlighting key factors and limitations for broader application.[9]

Qin, Wan et al. analysed how local grocery retailers can optimize pricing and delivery strategies using 020 instant delivery services to boost profits.Findings show raising product prices while offering free delivery is more profitable than charging delivery fees. The cost gap between online and offline services significantly impacts optimal decisions. Setting a reasonable delivery range and a starting price can improve efficiency and profitability. They concluded that Brick-and-mortar retailers can maximize profits under the O2O instant delivery model by setting low or no delivery fees, a starting price, and optimizing the delivery range.[10]

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MAYTERIALS AND METHODS:

Dataset:

The dataset titled **"Instant Delivery Apps in India"** consists of 1,000 records and 12 attributes. It captures various aspects of user interactions with instant delivery apps across different Indian cities.

Attributes Overview:

SI.N 0.	Attribute Name	Description	Example	Datatype
1.	App Name	Name of Delivery App	Swiggy	Character
2.	City	Place of the service used	Hyderabad	Character
3.	Category	Type of Product	Grocery, Medicine	Character
4.	Rating	App Rating out of 5 by User	2.7, 3.5	Float
5.	No.of Ratings	Total no. of ratings of an app	66,406	Integer
6.	Delivery Time	Time Taken for Delivery	30, 24	Integer
7.	Shipping Fee	Delivery Charges	50, 80	Integer
8.	Discount	Discount Offered on the Order	10%, 15%	Percentage
9.	User Age	Age of Customer	20, 35	Integer
10.	Payment Method	Method of Payment Used	Debit Card	Character

SOFTWARE: Tableau

Tableau is a **data visualization** and **business intelligence (BI)** software that allows users to connect, visualize, and share data insights in an interactive, easy-to-understand way.

It transforms raw data into visually appealing and insightful dashboards and reports without requiring any coding.

Key Features of Tableau includes Data Connectivity, Interactive Dashboards, Ease of Use (No Coding Required), Advanced Analytics, Sharing and Collaboration and Data Preparation.



Figure1: Order value for Different Categories

This bar chart represents **Order Value (in INR)** across different **Categories.** The **x-axis** represents the various categories including **All, Food, Grocery, and Medicine,**while the y-axis indicates the sum of order value. The Key Observation includes **Food** has the **highest order value**, approaching **280K INR** and the **Medicine** has the **lowest order value**, slightly above **240K INR**

DATA VISUALIZATION:



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This bar chart represents the Order Value (INR) across various App Names, indicating different online delivery applications or platforms. The Key observation is Fresh has the highest order value, standing out significantly with over 75K INR, much higher than the others.



Figure3: Shipping fee in various cities.

This Donut-Chart represents the Shipping fee Charged for an order in Various Cities. The key observation is Chennai has the highest Shipping Fee.



Figure4: Number of ratings in each state

This is a horizontal funnel chart (or stacked bar chart) showing the number of ratings (in millions) across various cities in India. Chennai has the highest number of ratings.



Figure5: Running Sum of Discount Percentage for **Different Apps**

This Waterfall-style Bar Chart (or a running total bar chart) that displays the Running Sum of Discounts (%) across various apps. The chart visually accumulates discounts offered by each app in order.Each bar adds to the total, showing how each app contributes to the overall discount percentage.





Figure6: Displaying Sum of Order Value on Different Payment Methods

This is a **Tree Map** that displays the distribution of different **Payment Methods** based on their usage or value.In this Tree Map, Each rectangle represents a **payment method**.The **size** of each block indicates the **proportion** or **frequency** of that payment method.



Figure7: Usage of Different Applications In Various Cities

This is a **Heat Map** that shows the **intensity of app usage** across different **cities** and **apps**. It is a Heat Map Where, Rows represent **Cities**, Columns represent **App Names** And Cell values represent **Shipping Fee.**

Sheet 5	
App Name	
apna mart	111.9
apollo 247	121.9
App_998	2.6
App_999	4.9
App_1000	3.4
bb daily	135.6
big basket	144.4
blinkint	140.4
borzo	134.5
country delight	118.9
dealshare	102.6
deliveryexpress	117.1
dunzo	142.4
ferry	142.7
Fresh	268.2
instacart	128.1
jiomart	133.1
kempo	129.9
medplus	137.7
meesho	132.9
milkbasket	123.2
more	132.1
netmeds	134.0
noon shopping	145.3
pharmeasy	120.2
swiggy bolt	139.3
swiggy instamart	152.3
uber eats	131.8
zepto	151.0
zomato	143.1

Figure8: Visualizing Sum of Ratings for Different Applications

This is a **Heat List** that ranks or compares different **apps** based on Rating. It is a Heat List Where, Each row is an **App Name** with an associated Rating. The Key Observation Includes **Fresh** has the **highest value (268.2)** and is marked in dark green clearly the best-performing app.



CONCLUSION:

The dataset shows that most instant delivery apps in India have good user ratings, with many scoring above 4.0. Apps like Blinkit and Medplus stand out with ratings over 4.8. Delivery times vary, with faster apps often getting better reviews. Grocery is the most popular category, while medicine apps, though fewer, have higher average ratings. Users mostly come from big cities like Delhi, Hyderabad, and Chennai. Debit cards are the most used payment method. Discounts and shipping fees also vary, but most apps charge a flat fee around INR 30–40

The results suggest that quick delivery and good service play a big role in customer satisfaction. Even though discounts can increase the size of orders, they don't always lead to happier users. Apps that deliver faster and provide reliable service tend to get higher ratings and positive feedback. The high usage in metro cities shows that instant delivery is more popular in urban areas. Also, the strong preference for digital payments like debit cards highlights the shift towards cashless transactions in the quick-commerce market.

CONCLUSION

The dataset presents a comparative overview of various instant delivery apps operating across major Indian cities such as Delhi, Hyderabad, Chennai, Lucknow, and Ahmedabad. Prominent apps like Swiggy Instamart, Zepto, Medplus, Blinkit, and Big Basket are featured, reflecting diversity in service categories such as grocery and medicine. This variety showcases the growing consumer demand for instant delivery services across different sectors and locations.

Overall, the dataset suggests that rapid delivery, user satisfaction, competitive pricing, and efficient payment processing are key success factors for instant delivery apps in India. Companies with lower ratings might need to reassess their logistics and customer service strategies, while those performing well should continue to leverage speed and reliability as competitive advantages.

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