Dashboard 1

1. Total Revenue:

Insight: The total revenue generated from taxi services during the selected period (2019-2021) amounted to $2087.17M.

Interpretation: This metric provides a comprehensive view of the financial performance of the taxi[yellow taxi,uber taxi,local taxi] service. It's important to note any significant trends or fluctuations in revenue over the years.

Implications: Taxi companies should closely analyze factors influencing revenue, such as fare rates, demand patterns, and promotions, to develop strategies for revenue growth and stability.

2. Total Passengers:

Insight:The total number of passengers served by taxi services in the specified period (2019-2021) reached 150.34M

Interpretation: Understanding passenger volume is crucial for assessing the scale of service utilization and identifying peak demand periods. Trends in passenger numbers may indicate shifts in customer behavior.

Implications: Taxi providers can use passenger data to optimize vehicle allocation, schedule driver shifts, and enhance customer experiences during high-demand periods.

3. Average Fare:

Insight:The average fare per trip during the years 2019-2021 was $21.03.

Interpretation:The average fare per trip is a key indicator of pricing and can reflect changes in fare structures or rider preferences over time.

Implications: Monitoring and analyzing the average fare can guide pricing strategies, fare adjustments, and the introduction of promotions or discounts to attract more riders.

4. Pickup Location Zone:

Insight: "civic center" had the highest number of pickups, accounting for 4,091,396 of all pickups.

"JFK" had the second highest number of pickups, accounting for 3,978,328 of all pickups.

"Midtown Center" had the third highest number of pickups, accounting for 3,868,006 of all pickups.

"Upper East Side South" had the fourth highest number of pickups, accounting for 3,775,537 of all pickups.

Interpretation: Identifying popular pickup zones is essential for efficient resource allocation and targeting marketing efforts.

Implications:Taxi companies can concentrate driver presence and promotional campaigns in high-demand pickup zones to maximize revenue.

5. Dropoff Location Wise Zone:

Insight: "Civic center " was the 1st most common dropoff zone, making up 3,811,037 dropoff.

"Upper East Side North" was the 2st most common dropoff zone, making up 3,775,713 dropoff

"Midtown Center" was the 3st most common dropoff zone, making up 3,341,183 dropoff

"Upper East side south" was the 4st most common dropoff zone, making up 3,290,000 dropoff

Interpretation: Understanding dropoff zones provides insights into rider destinations and can inform route planning and driver availability.

Implications: Taxi companies can optimize routes and potentially introduce fixed-rate services to popular dropoff zones to enhance customer satisfaction.

6. Vendor Wise Trips and Revenue:

Insight:"Uber" provided the highest number of trips and generated the most revenue in 2019-2021 almost 80% of total.

Interpretation: Analyzing vendor performance can help identify top-performing partners and areas for improvement.

Implications: Collaborating closely with high-performing vendors and implementing strategies to support lower-performing ones can lead to increased efficiency and revenue growth.

7. Payment Type:

Insight: The majority of passengers preferred "credit card" as their payment method, accounting for 73% of all transactions during 2019-2021.

Interpretation:Payment type analysis sheds light on customer preferences and the need for flexible payment options.

Implications:Taxi services should continue to offer and promote popular payment methods while exploring options to accommodate a variety of payment preferences.

Dashboard -2

1. Month-Year Wise Trips (2019-2021):

Insight 1: The highest number of taxi trips occurred in oct 2021, with over 2.5 million rides.

Insight 2: Seasonal trends persisted over the years, with the summer months (June, July, and August) consistently showing higher trip volumes.

- Implications: Taxi companies should continue to plan for increased demand during the summer months and allocate resources accordingly. Promoting services to tourists during these peak months can be beneficial.

2. Day-Part Wise Trips (Afternoon, Evening, Late Night) - 2019-2021:

Insight 1: Evening hours, from 6 PM to midnight, consistently had the highest taxi demand during the years 2019-2021. Late-night hours, from midnight to 6 AM, also saw significant demand, especially on Fridays and Saturdays.

Insight 2:Afternoon hours, from noon to 6 PM, experienced lower demand compared to evenings and late nights across these years.

Implications: Taxi companies should continue optimizing their fleet and driver availability during evening and late-night hours. Implementing promotions and incentives during these peak times can maximize revenue.

3. Pickup Borough - 2019-2021:

Insight 1:Manhattan remained the borough with the highest number of taxi pickups during the years 2019-2021, contributing to approximately 60% of all trips.

Insight 2: Brooklyn and Queens followed, with significant but comparatively lower numbers of pickups. Staten Island and the Bronx had relatively fewer pickups.

Implications: Taxi companies can continue allocating more vehicles and drivers to Manhattan to meet the high demand. Exploring targeted marketing efforts in Brooklyn, Queens, Staten Island, and the Bronx may help increase pickups in these areas.

4. Day-Hour Wise Trips (Heatmap) - 2019-2021:

Insight 1: The heatmap for 2019-2021 reveals consistent patterns of high demand on Monday mornings and Friday evenings, reflecting commuter and weekend leisure travel.

Insight 2: Weekends, particularly Saturday evenings and early Sunday mornings, continued to show elevated demand across these years, suggesting leisure and nightlife activities.

Implications: Taxi companies should maintain adjusted driver schedules to match these patterns, ensuring more vehicles are available during peak hours on Mondays and Fridays. Promotions and special offers on weekends can attract more riders during these times.

These insights, based on data from 2019 to 2021, provide valuable information for taxi companies to optimize their operations and better meet the needs of riders in New York City during that timeframe.