An in-depth analysis of GoodCabs performance - 2024

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SECTIONS

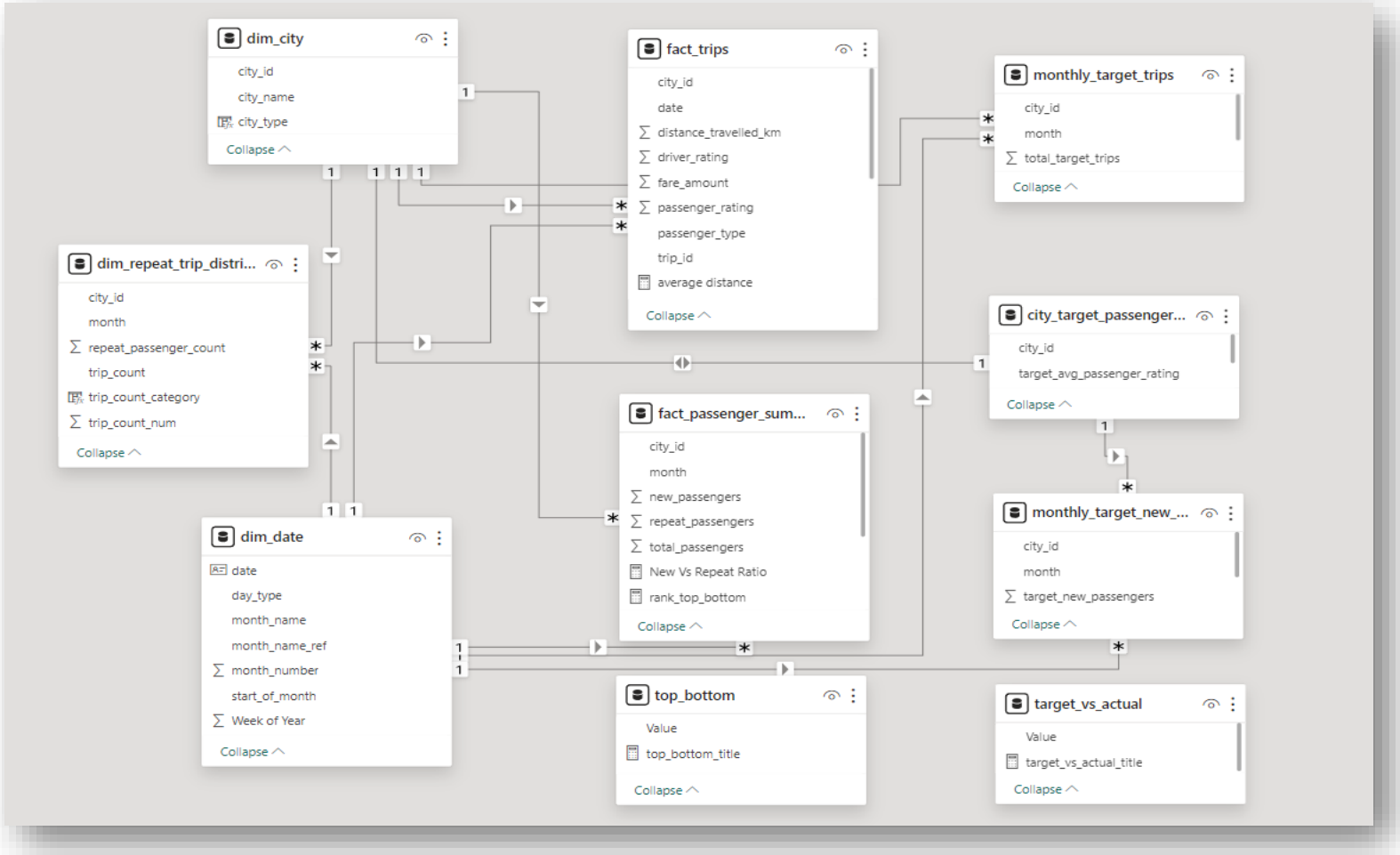
Problem Statement

GoodCabs, an Indian cab service operating in 10 tier-2 cities, aims to help local drivers earn a sustainable living while providing high-quality service to customers. The company is performing well and seeks to improve further by analyzing key metrics.

To meet its 2024 targets, the Chief of Operations has initiated an analysis of trip volume, passenger satisfaction, repeat rates, and trip distribution to enhance growth and service quality.

Data

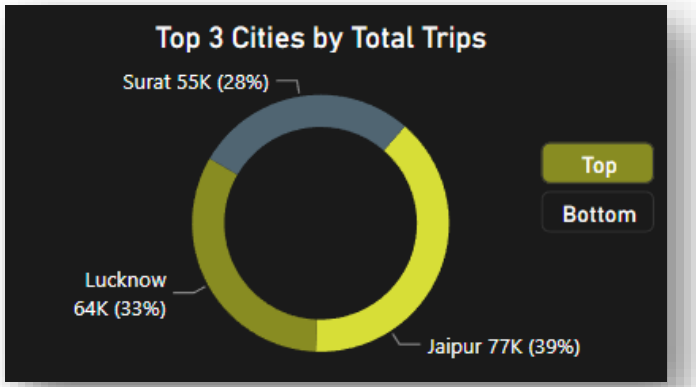
Organized the data into a star schema model using Power BI



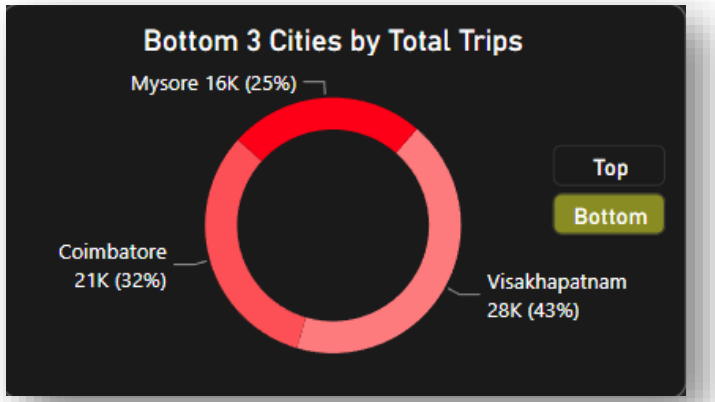
Objective

The objective of this analysis is to evaluate Goodcabs' performance across critical metrics such as trip volume, passenger satisfaction, repeat passenger rate, trip distribution, and the balance of new vs. repeat passengers. This will help identify actionable insights to support the 2024 growth and service enhancement goals.

Objective 1: Identify the top 3 and bottom 3 cities by total trips over the entire analysis period.



Jaipur: The top-performing city with **77K trips**, making up about ~40% of the total trips among the top 3 cities and contributing **18%** to the overall trips across all cities.

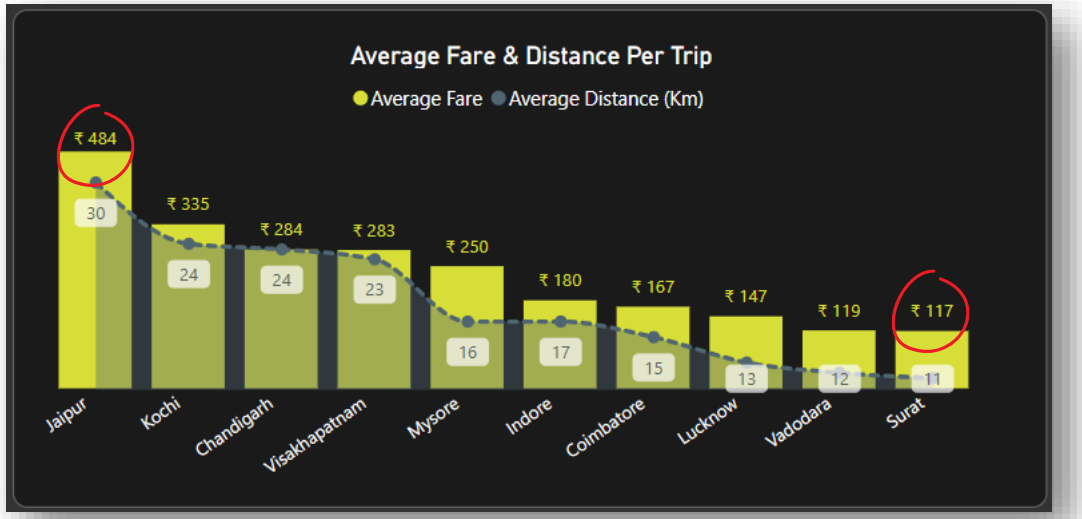


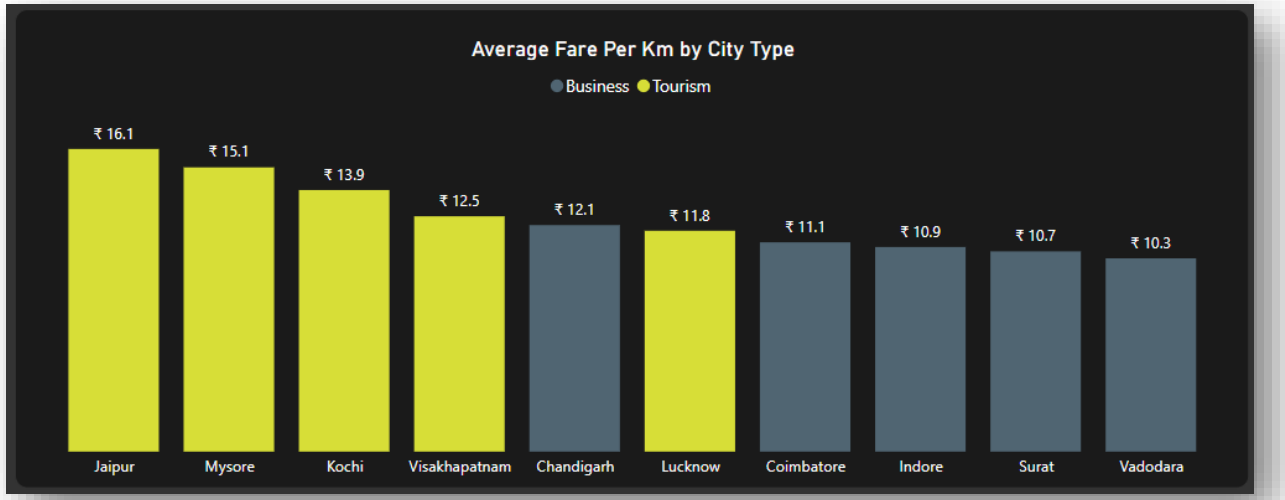
Mysore: The lowest-performing city, with **16K trips—4.8 times fewer** trips compared to Jaipur (the highest-performing city with 77K trips).

Objective 2: Calculate the average fare per trip for each city and compare it with the city's average trip distance. Identify the cities with the highest and lowest average fare per trip to assess pricing efficiency across locations.

Jaipur has the highest average fare per trip (**₹484**), indicating that people often take longer cab rides due to the city's tourism-focused nature and spread-out layout.

Surat has the lowest average fare per trip, And an average distance per trip of just **11 km**, likely due to its business focus and short, frequent rides within office and industrial areas





Further analysis of the average fare per trip and average distance per trip reveals that the average fare per km is **25%** higher (**₹10 more**) in tourism-focused cities compared to business-focused cities

Tourism-focused cities typically have **higher fares per km** due to premium pricing, seasonal demand surges, and detours to popular tourist destinations, contributing to higher rates compared to business-centric cities.

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Objective 3: Calculate the average passenger and driver ratings for each city, segmented by passenger type (new vs. repeat). Identify cities with the highest and lowest average ratings.

New

Average Rating by City

City	Passenger Rating	Driver Rating
Kochi	8.99	8.99
Jaipur	8.99	8.99
Mysore	8.98	8.98
Visakhapatnam	8.98	8.98
Chandigarh	8.49	7.99
Indore	8.49	7.97
Coimbatore	8.49	7.99
Surat	7.98	6.99
Vadodara	7.98	7.00
Lucknow	7.98	6.99

Kochi and Jaipur have the highest passenger and driver ratings at **8.99/10**, while Lucknow and Vadodara rank the lowest at **7.98/10**, highlighting the need to improve customer and driver relations. Interestingly, the ranking of top and bottom performers is consistent across new and repeated

Repeated

Average Rating by City

City	Passenger Rating	Driver Rating
Kochi	8.00	8.99
Jaipur	7.99	8.98
Visakhapatnam	7.99	8.99
Mysore	7.98	8.97
Chandigarh	7.49	7.47
Coimbatore	7.48	7.48
Indore	7.47	7.48
Surat	6.00	6.48
Lucknow	5.99	6.49
Vadodara	5.98	6.48

Passenger ratings for **repeat customers** are **1.3** points lower than the average ratings for new customers, indicating dissatisfaction among regular users

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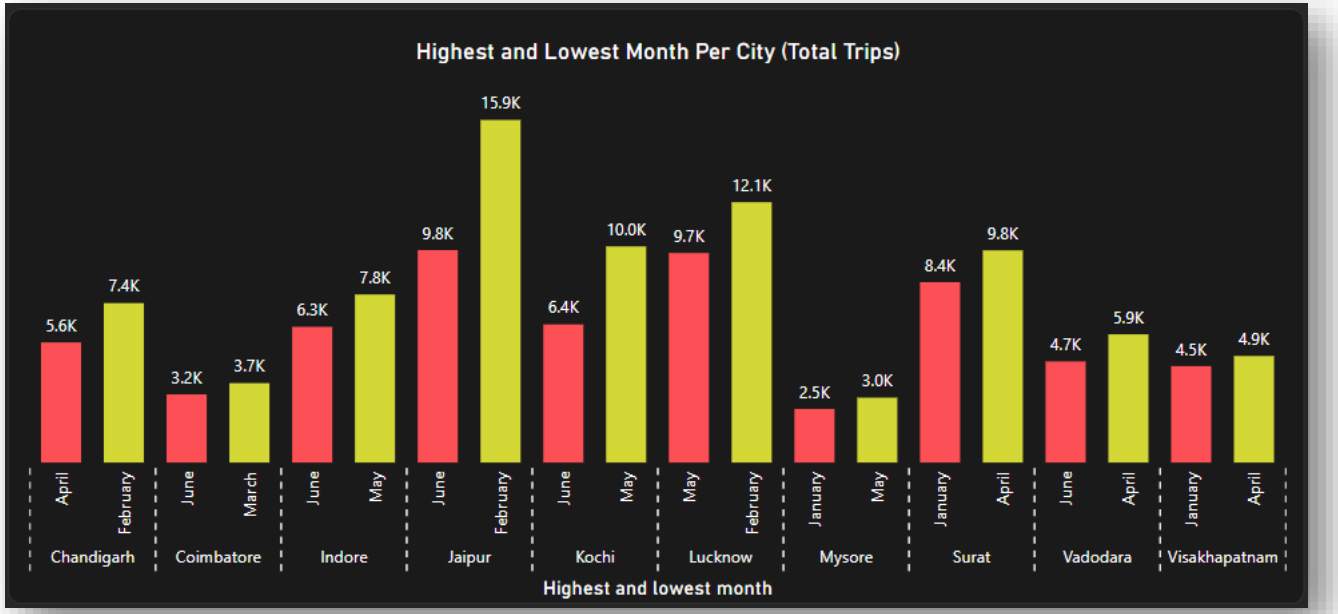
Objective 4: For each city, identify the month with the highest total trips (peak demand) and the month with the lowest total trips (low demand).



June and January are the lowest-performing months, while April, February, and May are the highest-performing months

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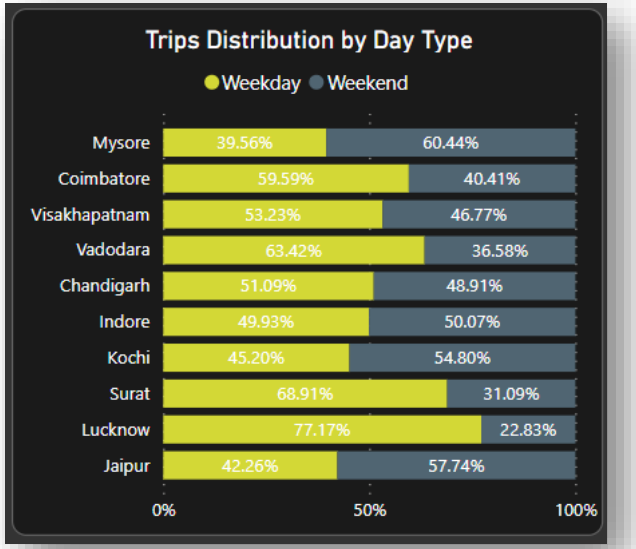
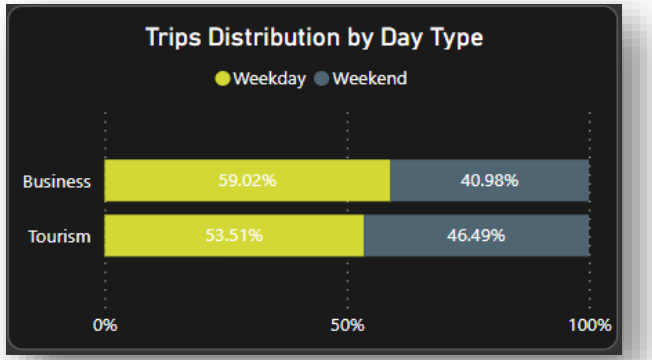
Objective 5: Compare the total trips taken on weekdays versus weekends for each city over the six-month period. Identify cities with a strong preference for either weekend or weekday trips to understand demand variations



Surat, **Vadodara**, and **Lucknow** have a higher share of weekday trips, ranging from 63% to 77%. In contrast, **Kochi**, **Jaipur**, and **Mysore** have a stronger weekend preference, with weekend trips accounting for 55% to 60%



Grouping the data by city type (tourism-focused vs. business-focused) reveals that **tourism-focused cities have a higher proportion of weekend trips**. The top three weekend-focused cities are all tourism-focused

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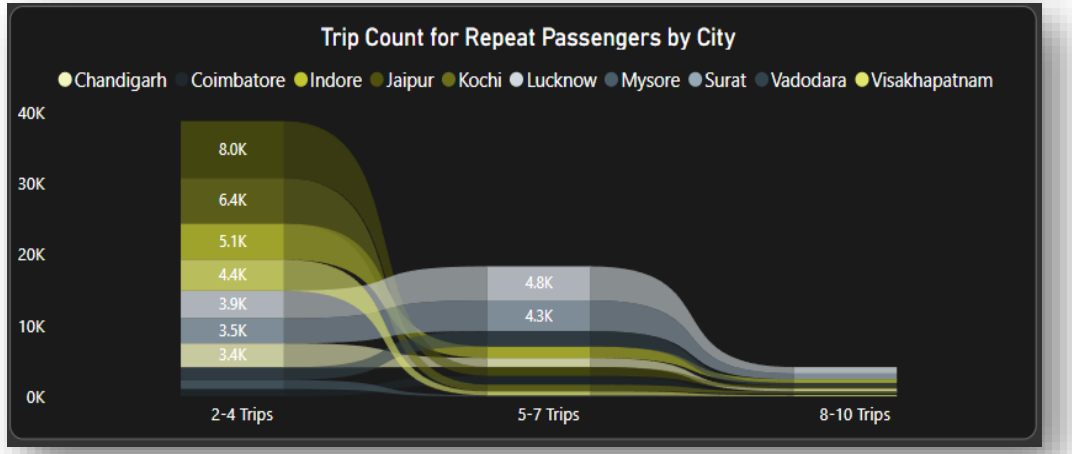
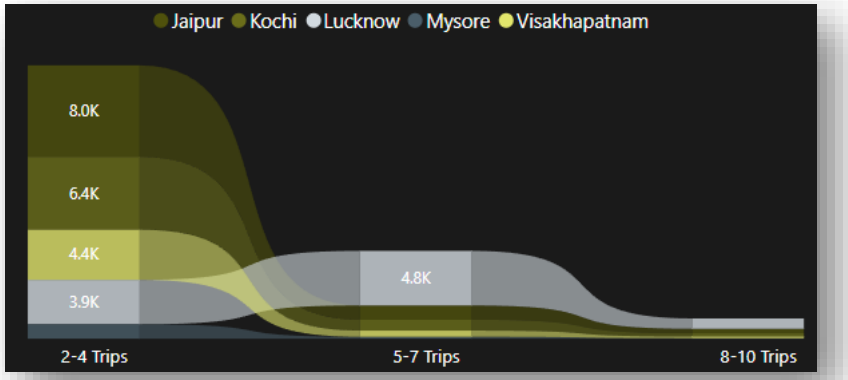
Objective 6: Analyze the monthly trip frequency of repeat passengers in each city, identify cities with higher repeat trip frequencies, and examine patterns between tourism-focused and business-focused cities



Lucknow and **Surat**, have higher trip counts in the **5-10 repeat trips** per month category, while **Jaipur** and **Kochi** lead in the **2-4 repeat trips** per month category. Cities with higher counts of longer trips tend to have fewer in the shorter trip categories

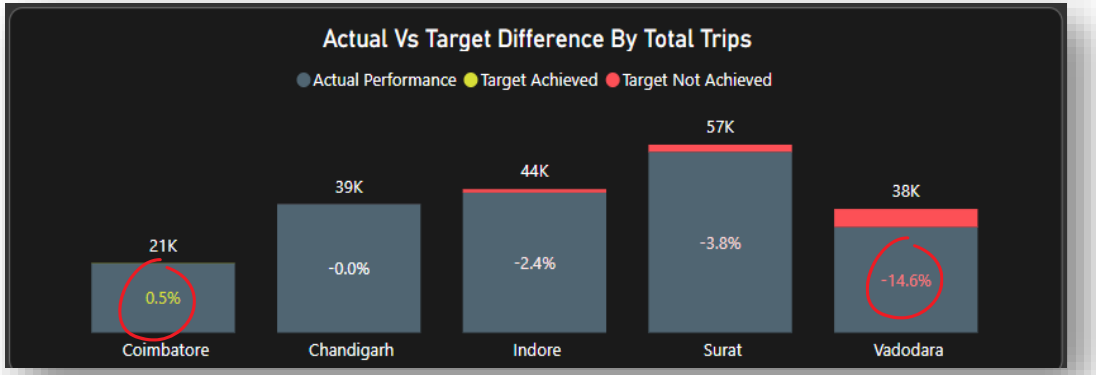
Tourism Focused Cities



Tourism-focused cities lead in **the lower repeat trips category** (2-4) as tourists typically visit for short stays or specific events, resulting in fewer repeat trips within a short timeframe

Objective 7: Evaluate each city's monthly performance against targets for trips, new passengers, and ratings. Assess if targets were met, exceeded, or missed, and calculate the percentage difference. Identify patterns, especially between tourism and business-focused cities.

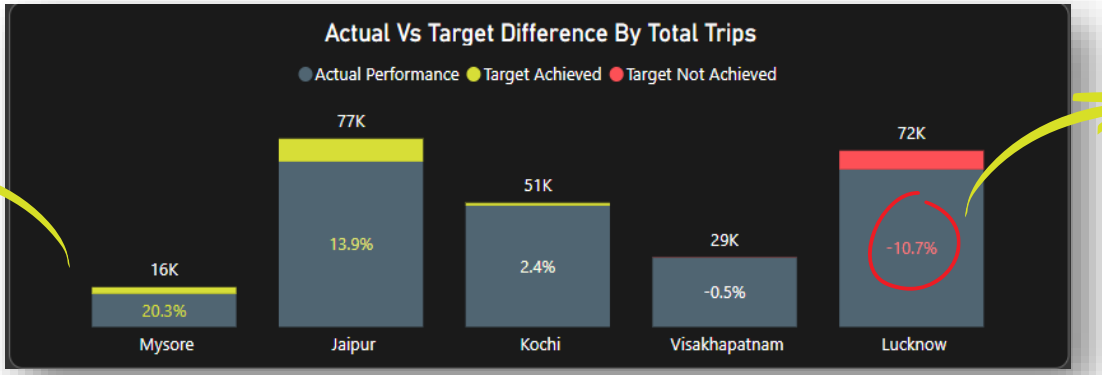
Business Focused Cities



Coimbatore is the only business-focused city exceeding its trips target by 0.5%

Vadodara is the worst-performing city in terms of trip targets, lagging approximately 15%

Tourism Focused Cities



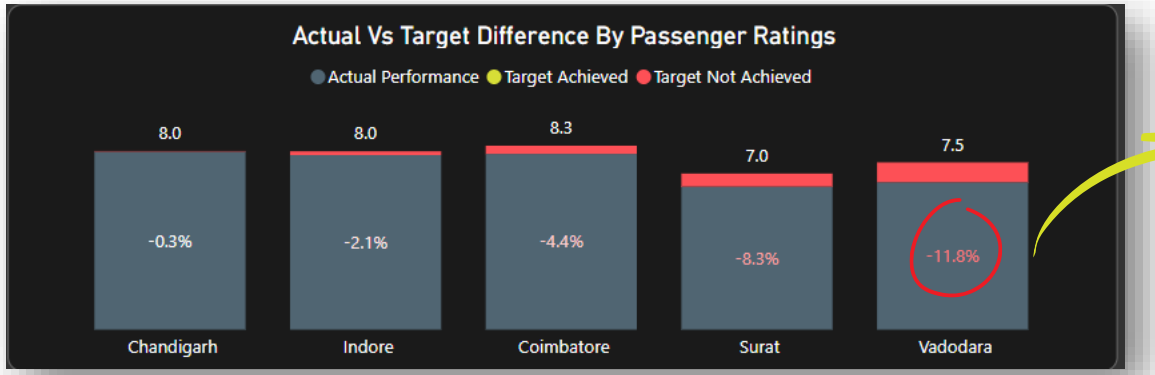
Mysore and Jaipur are the top-performing cities in terms of total trips

Lucknow is the only tourism-focused city significantly missing its trips target

Passenger Ratings Target

Business Focused Cities

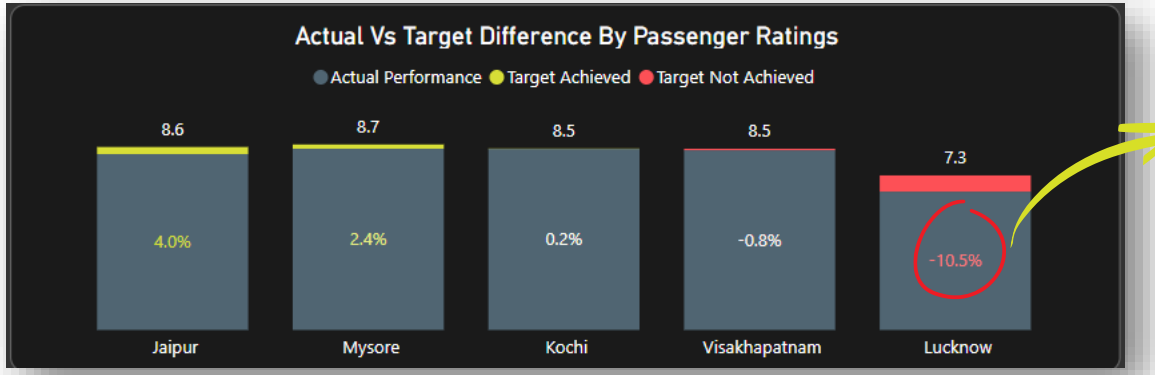
All business-focused cities have missed the ratings target



Vadodara is the worst-performing city, missing the ratings target by approximately 12%

Tourism Focused Cities

Tourism-focused cities have better ratings, with Jaipur and Mysore exceeding the ratings target.

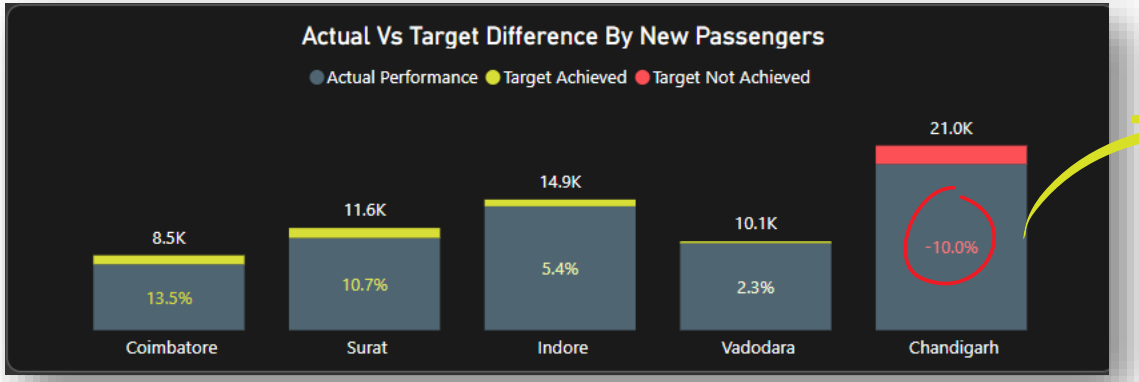


Lucknow is the only tourism-focused city significantly missing its ratings target

New Passengers Target

Business Focused Cities

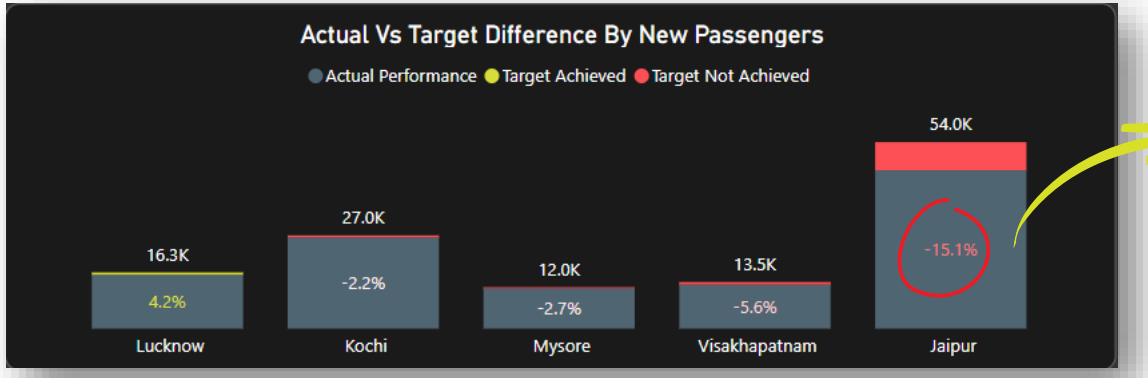
Business-focused cities are performing well in terms of new passengers



Chandigarh is the only city missing the target, falling short by approximately 10%

Tourism Focused Cities

Tourism-focused cities are performing poorly in acquiring new passengers



Jaipur is the worst performer, missing the target by approximately 15%

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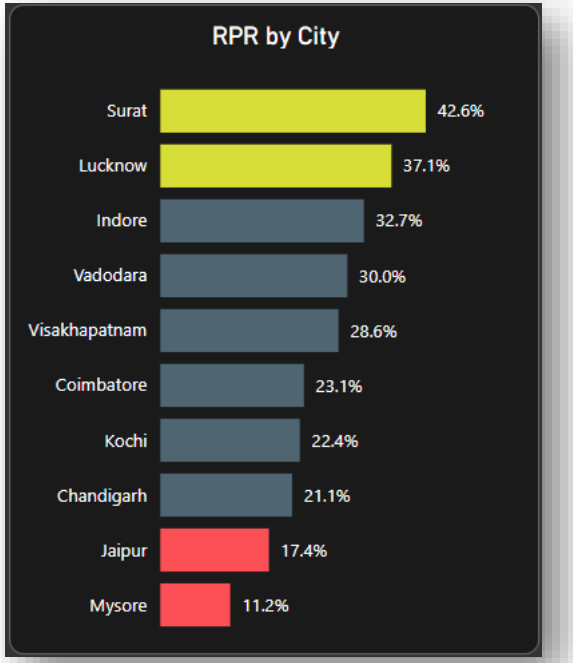
Objective 8 (A): Analyze the Repeat Passenger Rate (RPR%) for each city over six months. Identify the top 2 and bottom 2 cities based on RPR% to assess loyalty



Surat and Lucknow have the highest RPR

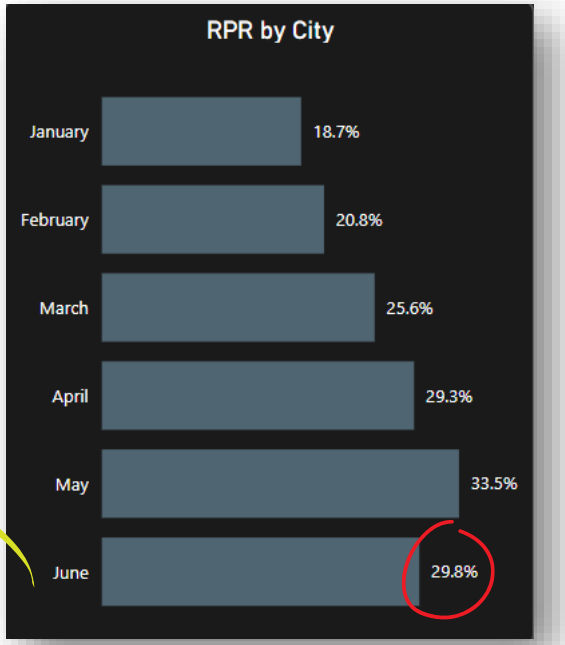
Jaipur and Mysore have the lowest RPR

Mysore has a Repeat Purchase Rate (**RPR**) of **11.2%**, highlighting the need for further analysis and strategies to improve customer loyalty

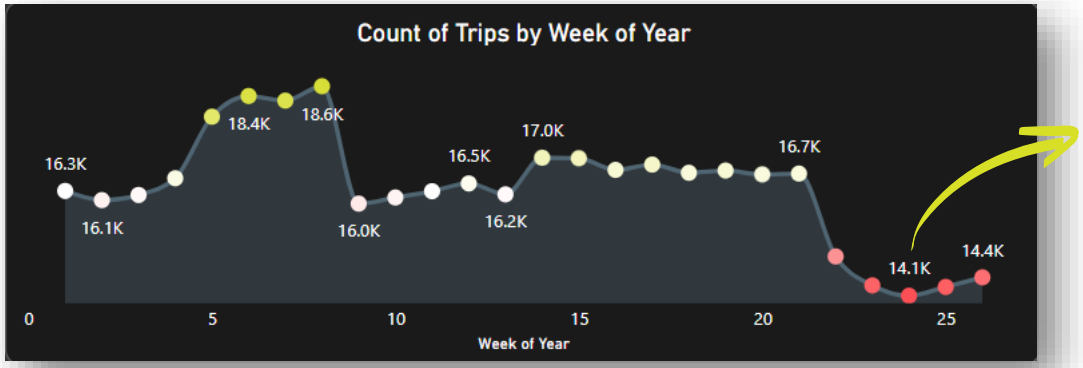
Objective 8 (B): Analyze RPR% by month to identify the highest and lowest rates, revealing any seasonal patterns or peaks in repeat passenger loyalty

RPR has been increasing in most months, showing a consistent rise in overall customer loyalty

June is the only month that saw a decline in RPR, with a decrease of 3.5%

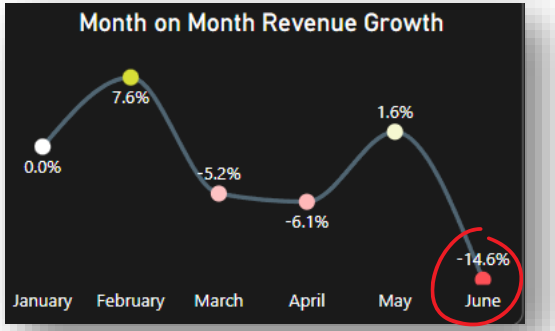


Declining Performance in June



June shows an overall decline in trips

The decline in total trips and RPR has impacted **month-on-month revenue** growth, with revenue dropping by nearly 14.5% compared to the previous month



Key Insights

- Jaipur, accounting for 18% of **total trips**, is the best-performing city, while Mysore, with only 4% of total trips, is the worst-performing city in terms of trip volume
- The average fare per kilometer is **25%** higher (**₹10**) in tourism-focused cities compared to business-focused cities
- The passenger rating is 1.3 points lower for **repeat passengers**
- June is the worst-performing month, while April is the best-performing month in terms of total trips
- Tourism-focused cities have a **6%** higher proportion of weekend trips
- Business-focused cities have a **higher** number of passengers taking **repeat trips**
- Business-focused cities are **meeting their targets** in terms of **new passengers**, while tourism-focused cities are performing well in terms of ratings and trips
- June is the only month where the Repeat Passenger Rate (**RPR**) decreased from the previous month, dropping by 3.5%

Secondary Analysis and Recommendations

What factors influence repeat passenger rates across cities, and how do socioeconomic patterns, quality of service, or pricing correlate?

- **Quality of Service**: Since GoodCabs employs **local drivers**, providing them with **training** and performance-based incentives (e.g., bonuses linked to customer ratings) can improve service quality and boost repeat passenger rates.
- **Socioeconomics and Pricing**: Offering **bikes**, **cabs**, and **rickshaws** in Tier 2 cities provides a range of options to meet the needs of the large middle-class population, offering flexible pricing and greater convenience, which can enhance customer satisfaction and drive repeat business.
- **Building Loyalty for Repeat Business**: Personalizing services, offering **loyalty program**s, and providing amenities like air-conditioning, easy booking, and in-vehicle chargers can improve customer satisfaction and drive higher repeat passenger rates.

How do tourism seasons or local events affect Goodcabs' demand? Can targeted marketing during these events boost trip volume in tourism-heavy cities?

Tourism-Focused Cities (Jaipur, Lucknow)

- Peak demand in **February** due to tourist seasons and festivals.
- Tailoring marketing to events (sightseeing tours, festival promotions) can boost trips.

Business-Focused Cities (Indore, Surat, Chandigarh)

- Increased demand in **April**, as it coincides with the **financial year-end**, driving business travel and corporate events.
- Catering to business travelers with reliable airport transfers, timely pickups, and flexible booking options can drive more trips.

What emerging trends, like **electric vehicles** and **green energy**, are impacting the cab market in Tier-2 cities? Should Goodcabs adopt EVs and eco-friendly initiatives to stay competitive?

1. Cost Benefits of Electric Vehicles: Adopting **electric vehicles (EVs)** can significantly reduce operational costs (fuel and maintenance), allowing Goodcabs to offer more competitive pricing while supporting sustainability.

2. Adapting to Expanding Public Transport: As **public transport** expands, Goodcabs could shift its focus towards **corporate** and **luxury travel**. This would help target higher-margin, less price-sensitive customers, ensuring continued profitability despite increased competition from mass transit.

Can Goodcabs partner with local businesses (hotels, malls, event venues) to boost demand and customer loyalty, especially in tourism-heavy or high-footfall areas?

- **Hotel Partnerships**: Collaborating with hotels for airport transfers or local rides can drive consistent demand from tourists and business travelers.
- **Mall & Event Venue Partnerships**: Offering exclusive rides or discounts for shoppers and event attendees can attract high-footfall customers.
- **Boosting Customer Loyalty**: Joint loyalty programs with local businesses can encourage repeat use and enhance brand visibility.
- **Tourism Areas**: In tourism-heavy locations, partnerships with tour operators or attractions can increase visibility and ride bookings.

What additional data should Goodcabs collect to improve key metrics like repeat passenger rate, customer satisfaction, and trip volume, focusing on customer behavior, operational efficiency, and market trends?

- **Customer Behavior Data**: Track **customer ID** and **demographics** (age, location, income) to understand preferences, including **vehicle type** (e.g., bike, sedan, SUV) and frequency of use.
- **Operational Performance and Timing Data**: Collect **time data** such as **pick-up and drop-off times** and **trip duration** to analyze patterns and improve service efficiency.
- **Geo-Location and Traffic Data**: Collect **pick-up and drop-off locations**, **traffic conditions**, and **route data** to help position cabs in high-demand areas and avoid traffic, speeding up response times.
- **Driver and Customer Security**: Collect **driver personal details** (phone number, vehicle number, Aadhar) and **customer info** (phone number) for added security and to verify identities, ensuring safety for both parties.
- **Exploring Autonomous Mobility**: Collect **camera** and **traffic data** to evaluate the potential for integrating **semi-autonomous** or **autonomous vehicles** in the future. This could help optimize routes, reduce operational costs, and position Goodcabs as an innovator in the mobility space.

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Thank You