Funnel Analytics for Metrocar: Optimizing User's Conversion and Engagement (January 1, 2021 - April 24, 2022)

BY

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Abstract

The Project is an ambitious endeavor, strategically designed to harness the potential of Metrocar, a prominent ride-sharing platform akin to industry giants like Uber and Lyft. This comprehensive project is a sophisticated fusion of SQL data exploration and data visualization using Tableau and Google Sheets, aimed at uncovering latent opportunities within the Metrocar customer funnel. The primary aim of this project is to navigate the intricate web of customer interactions and engagements with Metrocar's services and identify critical areas for improvement and optimization. These discoveries are facilitated through a detailed examination of user behaviors and preferences, which are deciphered by analyzing a diverse array of data parameters. The findings will enable Metrocar to enhance user experiences and make data-driven decisions. The impetus for this project derives from the pragmatic questions posed by stakeholders who seek concrete insights to address pivotal challenges and opportunities within the ride-sharing industry. The project objectives revolve around conducting a meticulous funnel analysis, addressing these business inquiries, and delivering compelling recommendations grounded in data-derived revelations. The project unfolds through distinct phases, each dedicated to honing specific analytical and reporting skills, ultimately culminating in the delivery of precise and actionable recommendations that will drive Metrocar's growth and long-term success

Table of Contents

CHAPTER ONE

INTRODUCTION

1.1 App Overview

Metrocar is a dynamic ride-sharing platform that facilitates seamless, on-demand rides for users by connecting them with dedicated drivers through a user-friendly mobile application. Metrocar serves as the pivotal link between riders and drivers, streamlining the ride-hailing process and enhancing mobility for countless individuals.

1.2 Introduction to Metrocar Funnel Analysis

At the core of Metrocar's service lies a structured customer funnel, guiding users through various stages of their journey:

I. App Download: Users initiate their Metrocar experience by downloading the app from trusted sources like the App Store or Google Play Store.

II. Signup: To access Metrocar's services, users create personalized accounts, sharing essential details such as their name, email, phone number, and payment information.

III. Request Ride: Once registered, users can request a ride, specifying pickup and destination locations, and the ride's capacity, tailored to their needs.

IV. Driver Acceptance: A local driver acknowledges the ride request and accepts the ride, ensuring swift and reliable service.

V. Ride: Riders embark on their journey, as the driver arrives at the pickup location, creating a seamless travel experience.

VI. Payment: Post-ride, Metrocar automatically processes payments via the app, simplifying financial transactions and sending receipts directly to users' emails.

VII. Review: Users are encouraged to rate their driver and share their ride experience, contributing to Metrocar's ever-evolving service standards.

1.3 Significance of Funnel Analysis for Metrocar

This multi-stage customer funnel is a hallmark of the ride-sharing industry, but it also presents challenges such as drop-offs at various stages. Understanding these drop-off points and optimizing user experiences is crucial for Metrocar's continued success.

The "Funnel Analytics for Metrocar: Optimizing User's Conversion and Engagement" centers on scrutinizing Metrocar's customer funnel. Through this data-driven approach, the project aims to answer critical business questions, ultimately providing actionable insights for enhancing the Metrocar experience. An in-depth funnel analysis was conducted, culminating in precise recommendations fueled by data-driven revelations.

1.4 Objectives of the Funnel Analysis

We delve into dataset exploration, metric development, and project finalization. Through these efforts, Metrocar aspires to stay at the forefront of the ride-sharing industry, addressing specific areas for improvement and innovation. Here are some of the objectives of this analysis:

I. Identify Drop-off Points: Determine where users drop off within the customer funnel, such as at the app download, sign-up, ride request, or other stages.

II. Optimize User Conversion: Improve the conversion rates at each stage of the funnel to ensure more users complete their first ride with Metrocar.

III. Platform-Specific Insights: Analyze data to provide insights on user behavior and preferences on different platforms (iOS, Android, web) to guide marketing and development efforts.

IV. Age Group Performance: Evaluate how different age groups perform at each stage of the funnel to identify target customer demographics.

V. Surge Pricing Strategy: Investigate the distribution of ride requests throughout the day to inform decisions on implementing surge pricing strategies.

1.5 Funnel Analysis questions/Answers

Before using SQL and Tableau to analyze the data and make recommendations, we need to write SQL queries to account for some questions and understand the Metrocar database and begin constructing the customer funnel:

1. How many times was the app downloaded? **23608 times**
2. How many users signed up on the app? **17623 users**
3. How many rides were requested through the app? **385477 rides**
4. How many rides were requested and completed through the app? **Requested rides - 385477, Completed rides- 223652.**
5. How many rides were requested and how many unique users requested a ride? **Requested rides-385477, Unique User Request - 12406**
6. What is the average time of a ride from pick up to drop off? **52 minutes and 6 seconds**
7. How many rides were accepted by a driver? **248379 rides**

8. How many rides did we successfully collect payments and how much was collected? **Successful ride payment - 212628, Total Sum - $4,251,667.61**
9. How many ride requests happened on each platform? **Android - 112,317, IOS - 234,693, Web - 38467**
10. What is the drop-off from users signing up to users requesting a ride? **29.6%**

CHAPTER TWO

FUNNEL BREAKDOWN AND INTERPRETATION

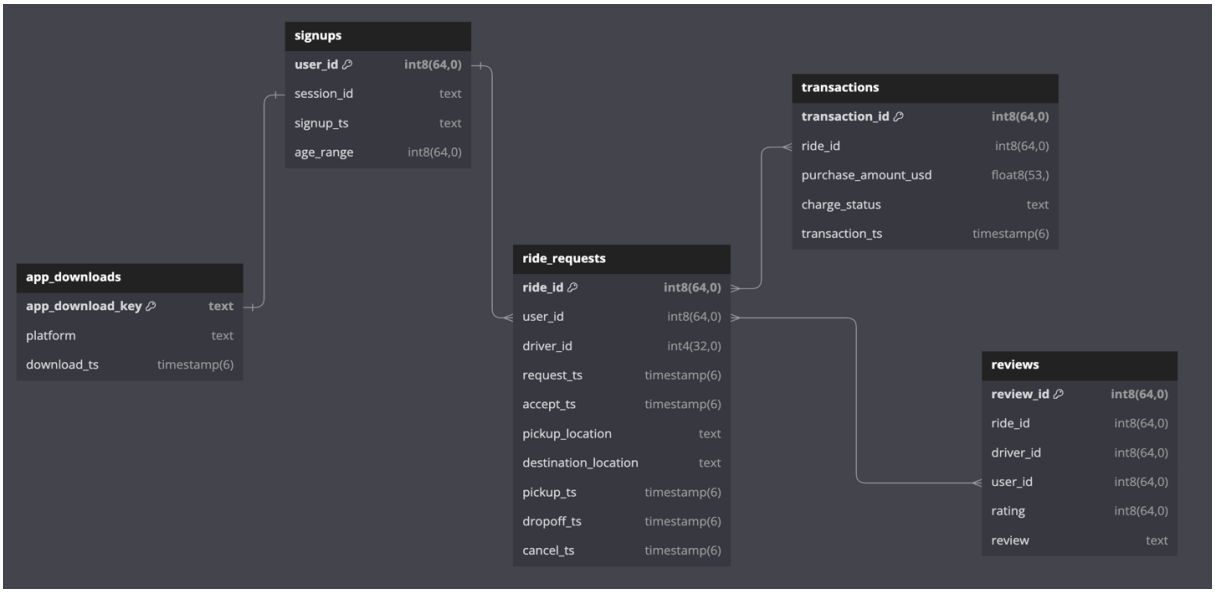
2.1 Dataset Structure

As with other customer funnel models, Metrocar experiences drop-offs at different stages. To address and optimize these areas, the Funnel Analysis Project focuses on critical questions and provides actionable recommendations. By analyzing user behavior and demographics, studying the impact of different platforms, evaluating age group performance, and examining ride requests throughout the day, this project offers a valuable roadmap for Metrocar's growth and success.

In a fast-paced, data-driven world, Metrocar is poised to lead the ride-sharing industry to new heights by understanding user behavior, optimizing its services, and providing a seamless travel experience for all.

2.2 Metrics Display

Diagram 2.2.1Dataset description of each table and its columns



SOURCE: Author's computation using DBML, 2023.

- app_downloads contain information about app downloads.
    - app_download_key: unique id of an app download
    - platform: ios, android or web
    - download_ts: download timestamp
- signups: contains information about new user signups.
    - user_id: primary id for a user
    - session_id: id of app download
    - signup_ts: signup timestamp
    - age_range: the age ranges the user belongs to
- ride_requests: contains information about rides
    - ride_id: primary id for a ride
    - user_id: foreign key to user (requester)
    - driver_id: foreign key to driver
    - request_ts: ride request timestamp
    - accept_ts: driver accept timestamp.
    - pickup_location: pickup coordinates
    - destination_location: destination coordinates
    - pickup_ts: pickup timestamp
    - dropoff_ts: dropoff timestamp

- cancel_ts: ride cancel timestamp (accept, pickup and drop-off timestamps may be null)

➢ transactions: contains information about financial transactions based on completed rides:

- ride_id: foreign key to ride
- purchase_amount_usd: purchase amount in USD
- charge_status: approved, canceled.
- transaction_ts: transaction timestamp

➢ reviews: contains information about driver reviews once rides are completed.

- review_id: primary id of review
- ride_id: foreign key to ride
- driver_id: foreign key to driver
- user_id: foreign key to user (requester)
- rating: rating from 0 to 5
- free_response: text response given by user/requester.

2.3 Tackling business Dilemmas

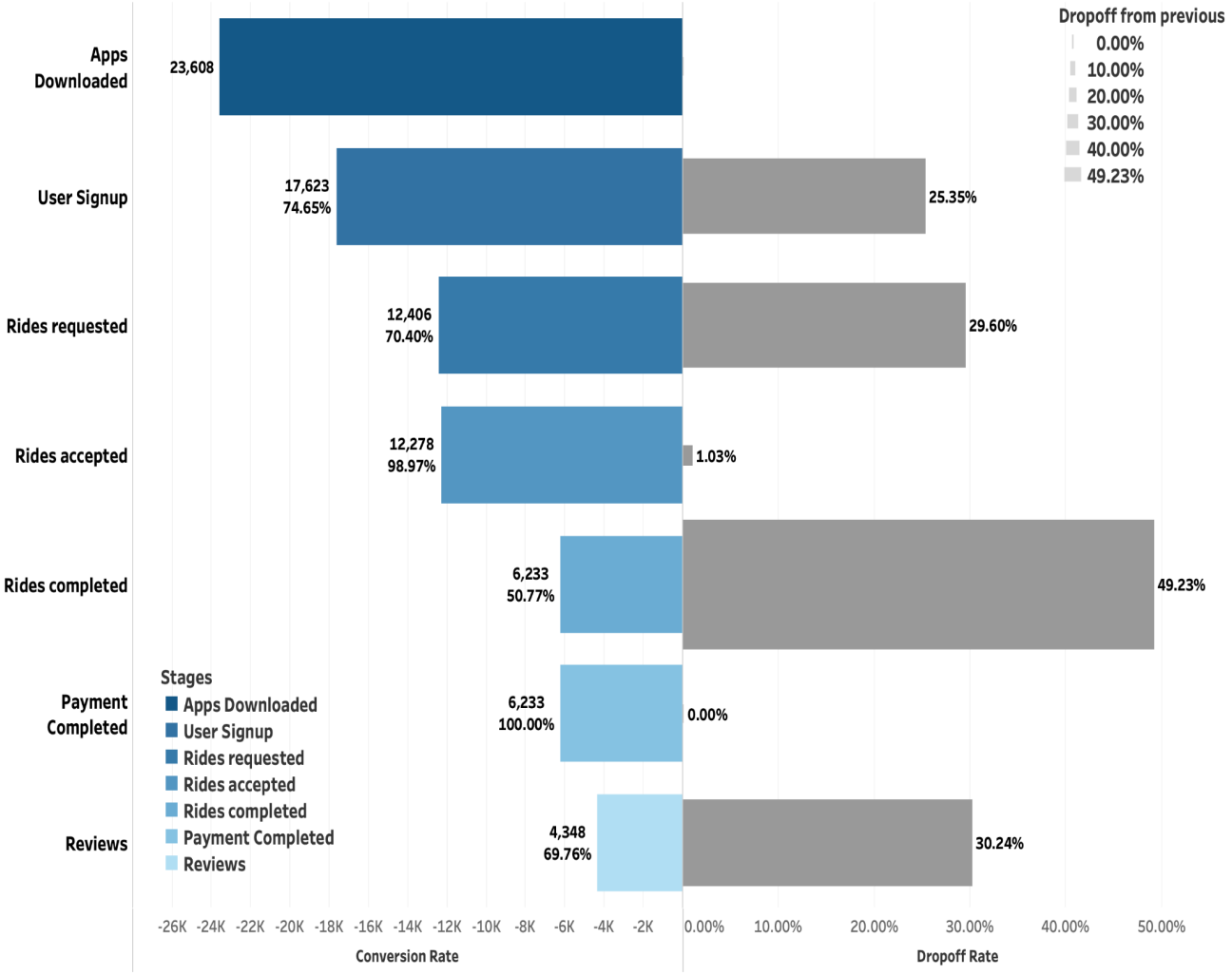
There are some business questions we need to address using SQL and Tableau to drive insight in our dataset. We are going to be going over each Business questions and delve insights one at a time using well detailed representation of analytical metrics interpretation and presentation using insightful visualization to uncover clear findings in each step of the funnel.

2.4 Key Business Questions To Analyze

Here is the breakdown of the key business questions to address by using SQL and Tableau to analyze the data and make recommendations based on the following business questions:

I. **What steps of the funnel should we research and improve? Are there any specific drop-off points preventing users from completing their first ride?** This is an important question to investigate since funnels usually have drop points which explains why it gets narrow at the end. Using Tableau visualizations to get a clear overview and break down of the activities in each steps starting from the first step being the count of users that downloaded the Metrocar app, next we will be consider who signed up to the app after download then requested a ride afterwards in which the drivers may accept or the user may decide to cancel before the driver accepts or even after. After which the driver picks the user from their pickup location to their designated drop off point which signifies the ride has been completed. Payment is made automatically after drop off and users are able to give reviews of the ride afterwards.

Figure 2.4.1: Conversion Rate & Drop-Off Analysis for Funnel Stages



SOURCE: Author's computation using Tableau Public, 2023.

Figure 2.4.1 objective is to identify the steps in the user journey where improvement is needed to enhance the conversion rate and to pinpoint specific drop-off points that may be preventing users from completing their first ride.

Understanding the interplay between conversion and drop-off rates at each stage of the funnel helps identify specific areas for research and improvement to enhance the overall user journey.

This metric shows the percentage of users who successfully moved from one step to the next. At the initial stage of the funnel, there is no prior step to convert from. As expected, the conversion percentage is not applicable at this point which indicates why there is no drop-off at this stage.

From the Apps Downloaded stage, 74.65% of users successfully proceeded to the User Signup stage, indicating a relatively strong conversion rate. However, 25.35% of users dropped off at the User Signup stage. This suggests a significant challenge in converting app downloaders into registered users. From the User Signup stage, 70.4% of users proceeded to request rides, indicating a successful conversion rate. However, there is still a substantial drop-off of 29.6% at this stage, which is a clear point of concern. This indicates that a significant portion of users who signed up do not proceed to request rides.

Nearly all users (98.97%) who requested rides had drivers accept them, indicating a highly successful conversion rate. Only 1.03% dropped off at the Driver Acceptance stage. The drop-off is minimal, suggesting that the process between requesting rides and driver acceptance is smooth and efficient.

The conversion rate drops to 50.77% from the previous stage, indicating a significant challenge.

There is a substantial drop-off of 49.23% at the Pickup stage, making this the most critical drop-off point. The drop-off rate indicates a potential issue in the pickup process that requires investigation and improvement.

For users who reach the Payment stage, all (100%) successfully complete it. This is a positive sign, as there is no drop-off at this stage.

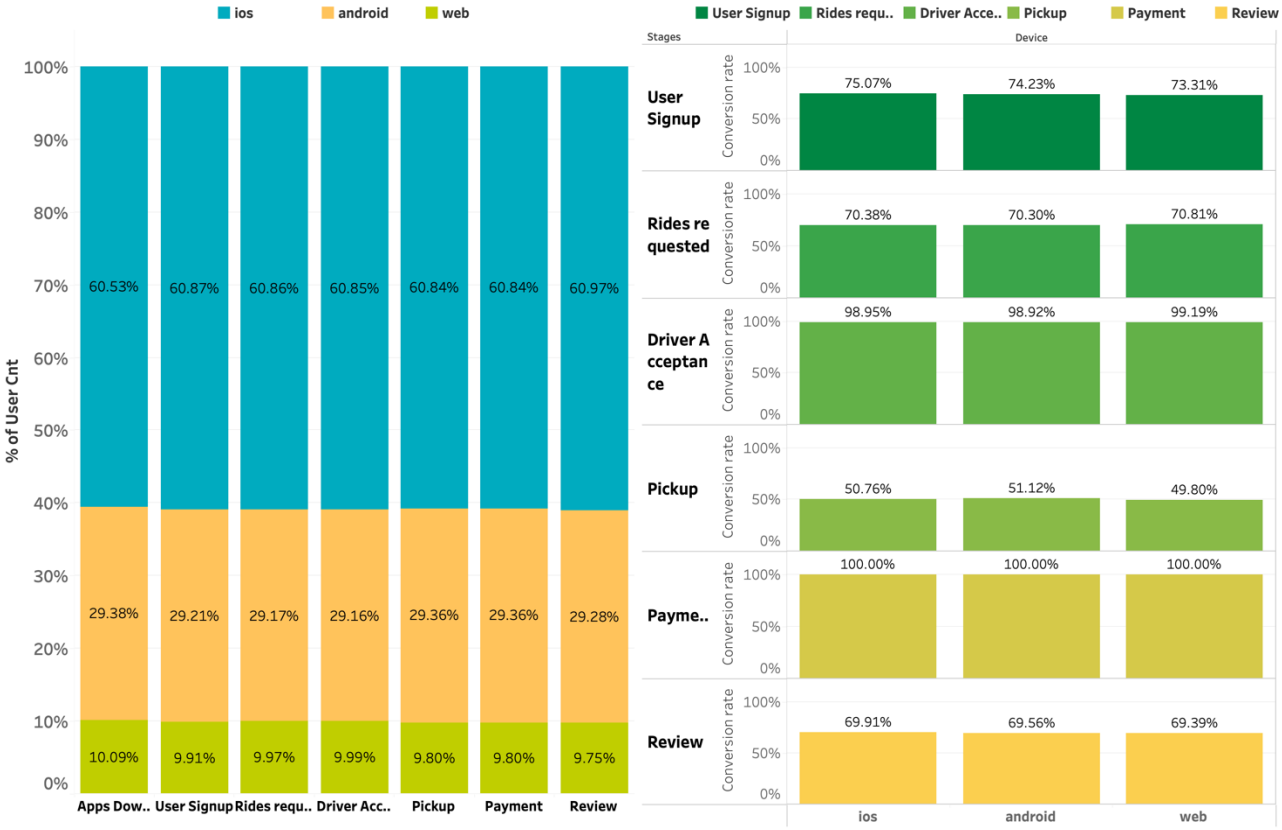
From those who reached the Payment stage, 69.76% of users proceeded to provide reviews.

However, there is a significant drop-off of 30.24% at the Review stage, indicating a potential area for improvement.

II. **Metrocar currently supports 3 different platforms: ios, android, and web. To recommend where to focus our marketing budget for the upcoming year, what insights can we make based on the platform?**

Knowing the device/platform most of Metrocar users engage with can be very useful to determining the target audience that.

Figure 2.4.2: Comparison of User Counts and Conversion Rates Across Platforms in the Metrocar Funnel



SOURCE: Author's computation using Tableau Public, 2023.

In Figure 2.4.2, the analysis of user count percentage at each funnel stage for each platform shows that ios constitutes more than half of the users of Metrocar but we will use the conversion rates to provide insights into the efficiency of each stage of the customer funnel for different platforms. Despite iOS having the highest percent of downloaded apps with over 60.5%, Android and Web are not far behind in terms of the conversion rate from app download to sign up with 74.23% and 73.31% respectively and iOS not having much of a significant difference in increase having 75.07%. This suggests that while iOS has more downloads, the other platforms are doing well in converting downloads into signups.

Signup to ride request conversion rates is quite similar across the platforms. With iOS, Android and Web having 70.38%, 70.3%, and 70.81% respectively. It indicates that once users sign up, they are equally likely to initiate ride requests on all platforms. The conversion rates from ride request to driver acceptance are also very close across all platforms having iOS, Android, and Web with 98.95%, 98.92%, and 99.19% respectively. It suggests that drivers are equally likely to accept ride requests from users on different platforms. The conversion rates from driver acceptance to ride pickup are relatively similar, with Android having the highest rate. These conversion rates are lower compared to the previous stages with iOS, Android and Web having 50.76%, 51.12% and 49.8% respectively, indicating that there might be challenges or inefficiencies in the process of transitioning from driver acceptance to ride pickup**.** The purchase conversion rate from ride pickup is 100% across all platforms, which is a positive sign. This suggests that once a ride is picked up, users are always completing the financial transaction. Ensure this high conversion rate is maintained. The conversion rates from purchase to leaving reviews are relatively similar, with iOS having the highest rate of 69.91% and Android, and Web not being far off with 69.56%, and 69.39%. These conversion rates indicate that a significant portion of users leave reviews after making a purchase. However, there's still room for improvement in encouraging more users, especially on Android and Web, to leave reviews.

III. What age groups perform best at each stage of our funnel? Which age group(s) likely contain our target customers?

Grouping data into age groups is essential for understanding user demographics, enabling targeted marketing, customizing products, and identifying age-specific trends. It helps optimize resources, customer support, and predictive analysis, leading to more effective decision-making and improved user engagement.

Figure 2.4.3: Comparison of User Counts and Conversion Rates Across Age-range in the Metrocar Funnel

SOURCE: Author's computation using Tableau Public, 2023.

Figure 2.4.3 provided chart includes the percent count of users in each age range at various stages of the customer funnel and the corresponding conversion rates.

Aside the "Unknown" age range that had a high percentage of user count in the first four stage, age range 35-44 has a high percentage of user count compared to the other ranges across all the stages.

Age range 35-44 has the highest count of downloaded apps, indicating strong interest in the service among this age group.

Analyzing the provided conversion rates for each age group at different stages of the funnel, we can determine which age groups perform best at each stage and identify the age group(s) likely to contain your target customers:

All age groups, including the "Unknown" age range, have a perfect 100% conversion rate, indicating that once users download the app, they are equally likely to proceed to sign up. This suggests a seamless onboarding experience for users of all ages.

All age groups, including the "Unknown" age range all exhibit high signup-to-requested conversion rates, ranging from 69.71% to 70.6%. This implies that users across various age groups actively engage with the app by initiating ride requests. They also all have competitive requested-to-accepted conversion rates, ranging from 98.68% to 99.12%. This indicates an effective transition from requesting a ride to driver acceptance for users of all ages. Each age range maintained similar pick conversion rates, ranging from 49.72% to 52%. This suggests that users across different age groups are equally less likely to complete rides once they are accepted by drivers. Those that completed their rides maintained a perfect 100% conversion rate from completed rides to payment, indicating that users from different age groups are equally likely to pay after completing a ride. Although they all have varying review conversion rates, with age group 45-54 having the highest rate at 71.9% and the "Unknown" age range having a significant rate at 67.64%. This suggests that users from multiple age groups, as well as those with unspecified ages, actively engage with the service and provide feedback more than 60% of the time.

In summary, the relationship between conversion rates in different age groups indicates that the customer funnel is quite efficient across all age ranges. Users from various age groups, including those with unspecified ages, exhibit similar behaviors and conversion rates at different stages of

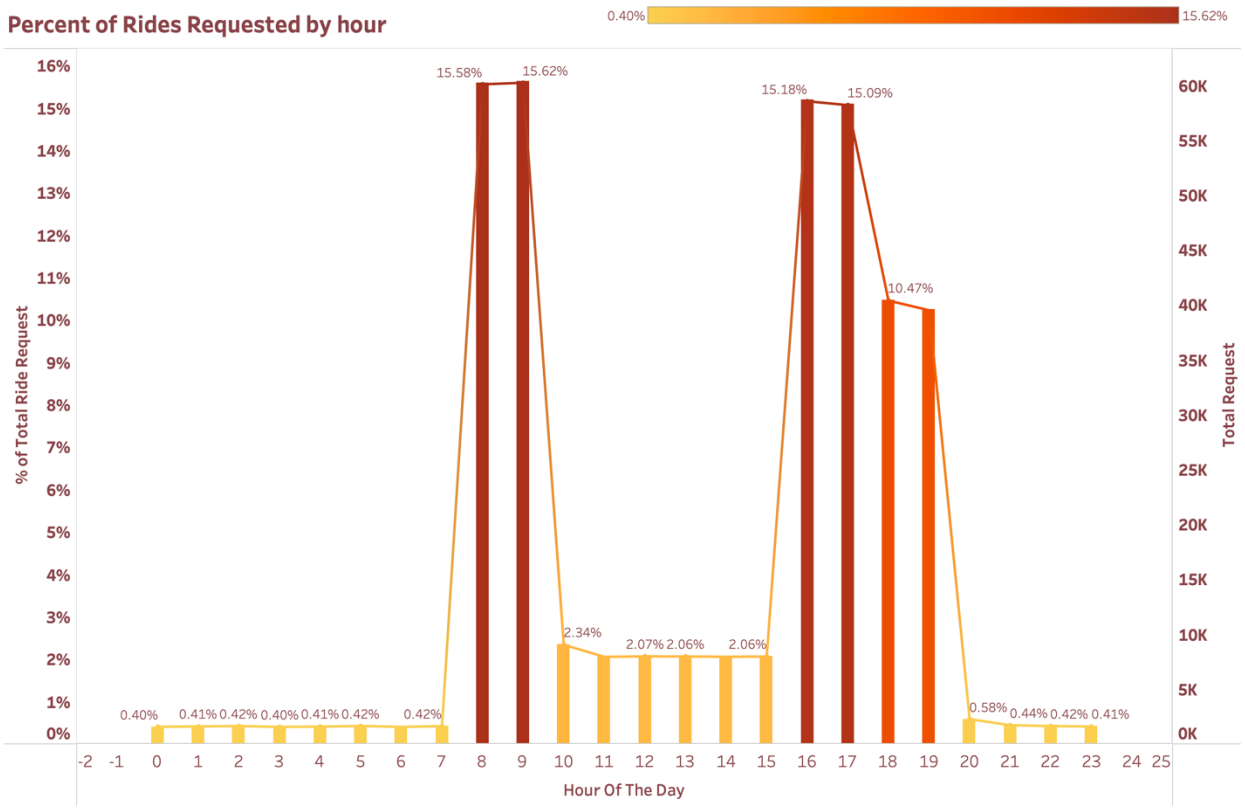
the funnel. This suggests that the service is user-friendly and engaging for a diverse user base, making it accessible to a wide range of potential target customers. It's essential to focus on maintaining this level of inclusivity and ensuring a positive user experience for all users, regardless of age.

The age group 35-44 is likely to contain a substantial portion of our target customers, given their strong percent of user count, engagement, and smooth progression through the funnel. Additionally, the "Unknown" age range represents a substantial user base actively engaging with the service, emphasizing the importance of ensuring a positive user experience for all users, regardless of their specified age.

IV. Surge pricing is the practice of increasing the price of goods or services when there is the greatest demand for them. If we want to adopt a price-surging strategy, what does the distribution of ride requests look like throughout the day?

Analyzing the hour of the day in which rides were requested in terms of the percent of the total requests can help identify where a price-surging strategy, also known as surge pricing, may be adopted to optimize revenue. Surge pricing involves increasing the price of rides during high-demand hours to maximize profits. Let's break down the analysis:

Figure 2.4.4: Hourly Ride Request Distribution for Surge Pricing Analysis



SOURCE: Author's computation using Tableau Public, 2023.

In Figure 2.4.4, the hours with the highest total percent of ride requests are typically during the morning and evening rush hours.

Hours with the highest total request counts are 8 AM and 9 AM, followed by 4 PM (16 H), and 5 PM (17 H) then 6 PM (18 H), and 7 PM(17 H). These hours represent the peak demand periods when users are most actively requesting rides. Consider adopting surge pricing during these hours to maximize revenue. By focusing on the hours with a high percentage of total requests, you can implement surge pricing strategies during peak demand periods. However, it's crucial to carefully

manage pricing to maintain a positive user experience and consider dynamic pricing strategies to adapt to changing demand patterns.

v. What part of our funnel has the lowest conversion rate? What can we do to improve this part of the funnel?

Analyzing and improving the stage in the Metrocar funnel with the lowest conversion rate is a pivotal endeavor with far-reaching implications. This analysis is of paramount importance as it directly affects multiple aspects of the ride-sharing service and the company's overall success.

Firstly, optimizing this stage is vital for enhancing the user experience. A smoother, more efficient journey for users ensures higher satisfaction and encourages them to return, ultimately improving customer retention.

Secondly, addressing the low conversion stage is a strategic move for revenue growth. It represents an untapped source of potential income, and by resolving issues at this stage, Metrocar can bolster its profitability and fuel business expansion.

Furthermore, in the highly competitive ride-sharing industry, providing a user-friendly experience is a distinguishing factor. This optimization can give Metrocar a significant competitive advantage, attracting and retaining customers in a fiercely contested market.

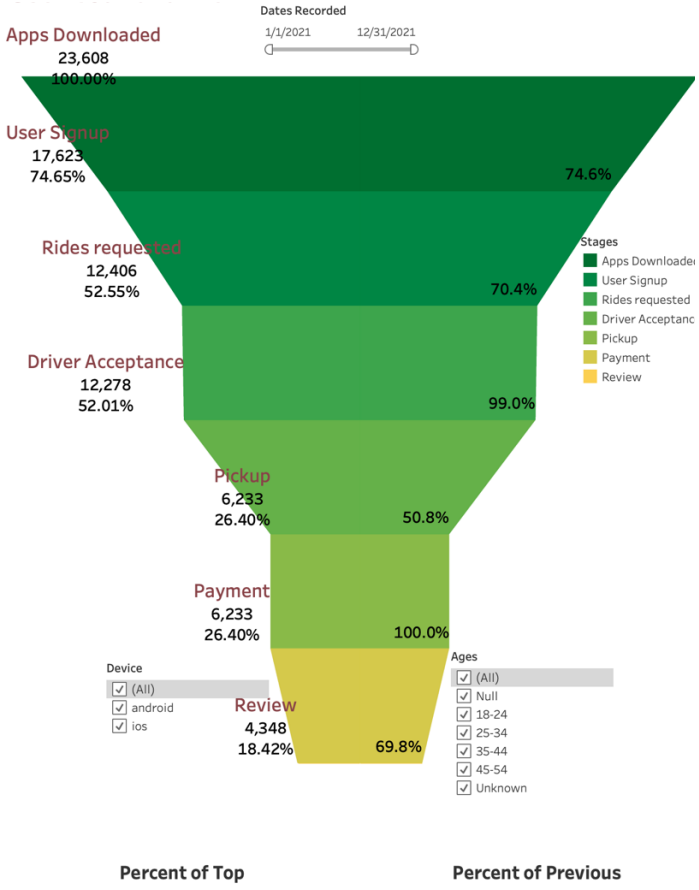
Moreover, the analysis yields invaluable insights into user behavior. Understanding why users drop off at this specific stage provides actionable data-driven information. This knowledge can guide targeted strategies and decision-making, ensuring the company's operations are driven by customer-centric improvements.

Finally, addressing the stage with the lowest conversion rate contributes to customer retention. Satisfied users who complete rides are more likely to return to the service in the future, leading to long-term customer loyalty and increased customer lifetime value.

In conclusion, this analysis is a holistic endeavor that not only benefits user experience but also contributes to revenue growth, competitive advantage, user insights, and customer retention. It is a strategic step towards the overall success and profitability of Metrocar in the competitive ride-sharing industry.

2.5 User-Level Granularity

Figure 2.5.1: Metrocar Funnel Conversion Analysis from Top and Previous Stage



SOURCE: Author's computation using Tableau Public, 2023.

Figure 2.5.1shows that out of all users who downloaded the Metrocar app, 74.65% proceed to complete the User Signup. This high conversion rate indicates that most users who download the app are genuinely interested in signing up and using the service. When considering the entire user base (from the top of the funnel), 74.65% of users complete the User Signup. This shows that the User Signup stage maintains a strong conversion rate compared to the total user base.

After completing User Signup, 70.4% of users proceed to request a ride. This conversion rate suggests that most signed-up users are actively interested in requesting rides. In relation to the top, 52.55% of users who download the app go on to request a ride. This indicates that, while the conversion rate remains strong from User Signup, there is a drop in conversion compared to the total user base.

Nearly all users (98.97%) who request a ride find a driver willing to accept the request. This high conversion rate indicates that drivers are readily available. When considering the entire user base, 52.01% of users who download the app have their ride requests accepted by drivers. This suggests a strong conversion rate from the top of the funnel.

Only 50.77% of users who had their ride requests accepted proceed to the Pickup stage. This is the transition with the lowest conversion rate, indicating that some users drop off at this stage.

When considering the entire user base, 26.4% of users who download the app successfully reach the Pickup stage. This is the lowest conversion rate compared to the total user base, highlighting a significant drop in this stage.

All users who reach the Pickup stage successfully proceed to the Payment stage. This indicates a smooth transition with a 100% conversion rate. When considering the entire user base, 26.4% of users who download the app complete the Payment stage. The conversion rate remains consistent, as all users reaching Pickup proceed to Payment.

At the Payment stage, 69.76% of users proceed to write a review after completing their rides. This shows a relatively high conversion rate for user feedback. But when considering the entire user base, 18.42% of users who download the app provide reviews after completing rides. This is the conversion rate for user feedback at the Review stage compared to the total user base.

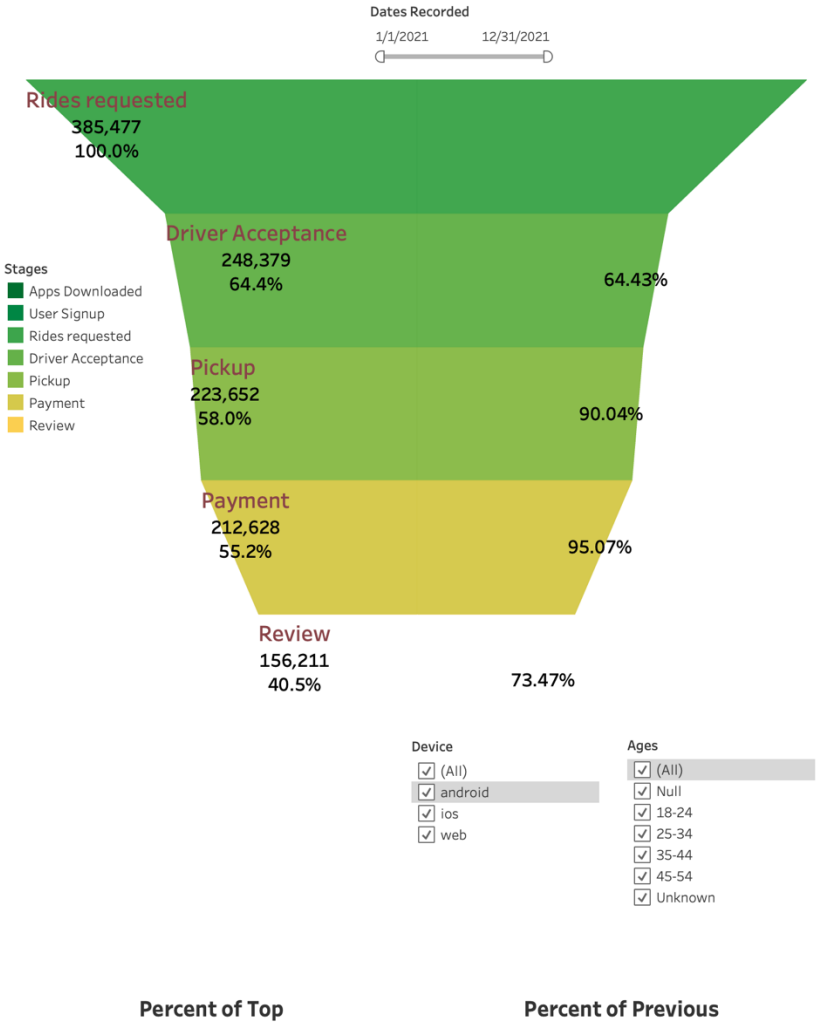
2.6 Ride-Level Granularity

The funnel analysis of Metrocar's ride-sharing app aims to break down the user journey into distinct stages, from the initial interaction with the app to the completion of a ride and subsequent review. The goal is to understand how users progress through these stages and identify where drop-offs or conversions occur. However, it's important to note that at the early stages which for "Apps Downloaded" and "User Signup" no rides have been initiated. At these initial stages, users are in the process of downloading the app and signing up, but they have not yet ordered any rides.

The funnel analysis primarily focuses on the stages of the ride process that involve actual ride requests, driver acceptance, pickup, payment, and review. It's at these points in the user journey that the conversion rates are calculated based on ride counts, as these stages directly impact the ride experience and business outcomes.

This comprehensive understanding of the funnel analysis helps us to pinpoint where in the journey users tend to drop off or convert. By examining the conversion rates for each stage, we can gain insights into user behavior and identify potential areas for improvement and optimization, ultimately enhancing the user experience and increasing ride completion rates.

Figure 2.6.1 Metrocar Funnel Conversion Analysis from Top and Previous



SOURCE: Author's computation using Tableau Public, 2023.

In Figure 2.6.1, to move from the "Rides Requested" stage to the "Driver Acceptance" stage, users needed driver acceptance which resulted in a conversion rate of 64.43% and this indicates that not all rides were accepted, leading to a drop off close to 40% from the initial number of rides requested.

The conversion rate from driver acceptance to pick up is 90.04%, indicating a high conversion rate at this stage. But when measured from the total rides requested, is 58.02%. This rate

considers the rides that were requested but not accepted by drivers, leading to a lower percentage.

Out of the rides that were picked up, 95.07% had a successful payment that were approved. This high conversion rate indicates that most rides that were picked up had a payment that went through. Relative to the total rides requested, is 55.16%. It considers the rides that were requested but did not result in pickups or payments.

After making payments for their rides, 73.47% provided reviews. This shows that a significant portion of users who make payments also leave reviews. This also measured 40.52% from the total rides requested. It considers the rides that were requested but did not result in pickups, payments, or reviews.

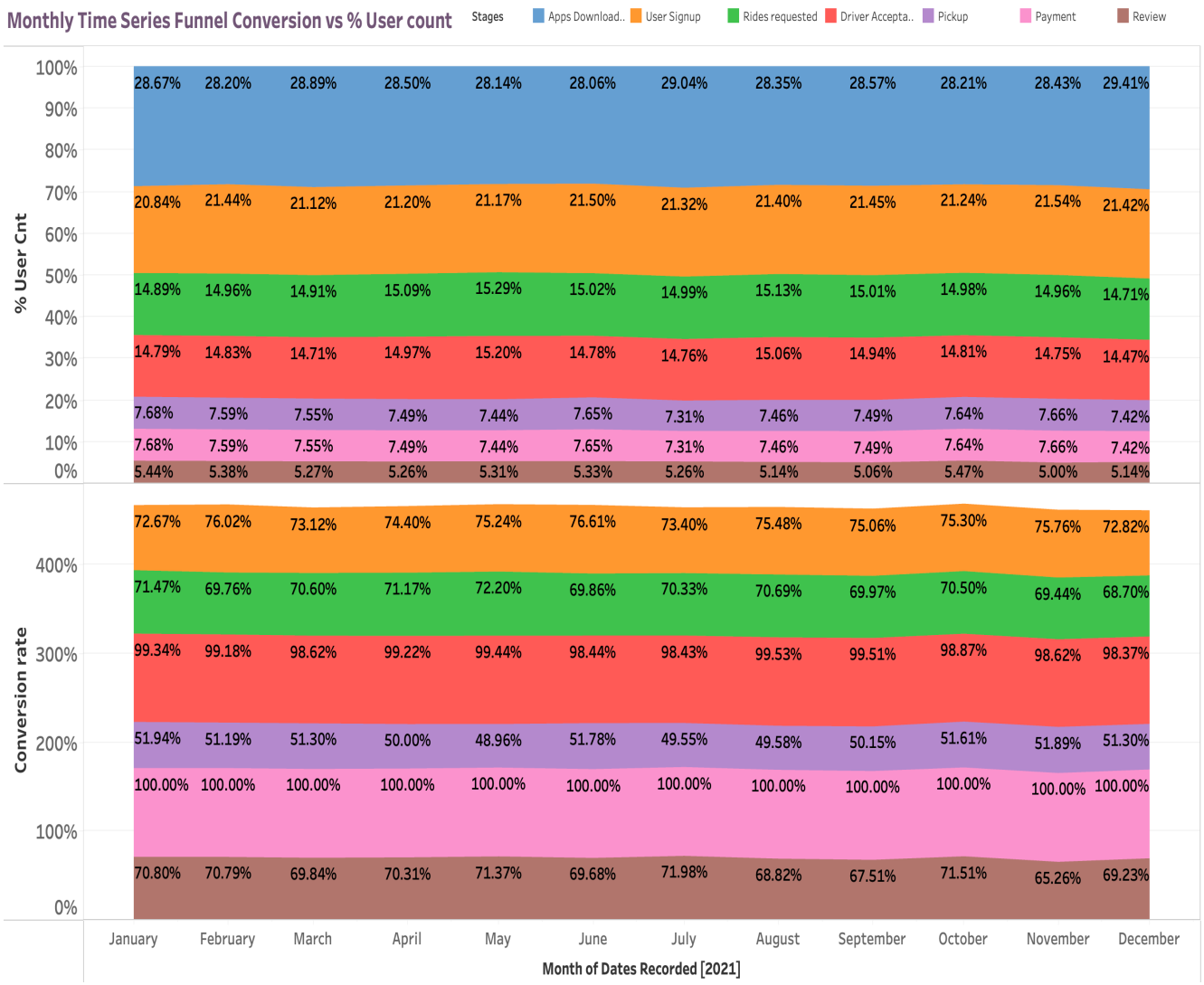
These detailed explanations provide insights into the progression of users through various stages of the ride-hailing process and help identify where drop-offs or conversions occur. It's important to note that the conversion rates are influenced by factors like user behavior, driver availability, and overall user experience. These insights can guide strategies to optimize the funnel and improve the user experience in specific stages.

2.7 Monthly Funnel Performance Analysis

Monthly Funnel Performance Analysis is a key aspect of data-driven decision-making. It offers a detailed view of how users progress through the various stages of the funnel on a month-to-month basis. This analysis helps identify trends, bottlenecks, and opportunities for optimization. By monitoring conversion rates, businesses can allocate resources effectively and adjust marketing strategies to improve the overall user experience.

Furthermore, it enables the setting of realistic monthly goals, allowing teams to work towards specific targets and measure their progress. The insights gained from this analysis support continuous improvement efforts, resulting in more efficient conversion processes and, ultimately, higher user engagement and revenue. It's a crucial tool for staying competitive in the ever-evolving digital landscape.

Figure 2.7.1 Monthly Funnel Performance Trends: A Year in Review



SOURCE: Author's computation using Tableau Public, 2023.

Figure 2.7.1 shows that for the % of User Cnt, the number of users who download the app is relatively consistent, with minor fluctuations from month to month. This indicates a steady inflow of potential users. The “User Signup” stage exhibits more significant variations in user counts each month. There is a gradual decline over time. The number of users requesting rides experiences fluctuations, but it generally follows a decreasing trend over the year. The "Driver Acceptance" stage reflects a constant flow as the previous stage showing that the number of users who request rides are accepted, mirroring the trend seen in the “Rides Requested” stage. But stages like “Pickup”, “Payment”, and “Review” consistently show lower user counts compared to previous stages. The drop-off is particularly notable but overall, while the initial stages like app downloads are stable, the subsequent stages of the funnel experience a decline in user counts. This trend highlights the importance of addressing user drop-offs and enhancing the user experience, particularly in the later stages, to improve the overall conversion rate and drive growth in Metrocar's user base.

The “App Download to User Signup” conversion rates remain relatively stable throughout the year, with an average of around 73%. This indicates that the onboarding process is consistent and effective in retaining users who download the app.

The “User Signup to Rides Requested” conversion rates also show consistency, with an average of about 70%. Users who sign up are likely to request rides.

The “ Requested to Accepted” conversion rates are consistently high, at around 99%, showing that most ride requests get accepted by drivers.

The “Accepted to Pickup” conversion rates are relatively stable, averaging around 51%. This stage has the lowest conversion rate.

The “Pickup to Payment” conversion rates are consistently high at 100%, indicating that users who reach these stages complete the process. While the “Payment to Review” stage shows an average of close to 70% conversion rate.

The "Accepted to Pickup" stage has the lowest conversion rate, averaging around 51%. To improve this part of the funnel, Metrocar should focus on optimizing the pickup process, reducing waiting times, and enhancing user experience at this critical stage.

CHAPTER THREE

SYNOPSIS, INFERENCES AND SUGGESTIONS

3.1 Synopsis of the Analysis

This project conducted a comprehensive analysis of Metrocar, a prominent ride-sharing platform. The analysis, spanning from January 1, 2021, to April 24, 2022, involved detailed examination of user interactions and engagements to identify opportunities for enhancement and optimization within Metrocar's customer funnel. The study aimed to provide actionable insights derived from data-driven findings to address crucial challenges and opportunities in the ride-sharing industry.

The project was divided into distinct phases, each dedicated to honing specific analytical and reporting skills, culminating in the delivery of precise and actionable recommendations to drive Metrocar's growth and long-term success. The primary objectives included identifying drop-off points, optimizing user conversion, providing platform-specific insights, assessing age group performance, and investigating surge pricing strategies. The analysis incorporated data exploration, metric development, and detailed monthly funnel performance tracking to enable data-derived insights.

3.2 Inferences of the Analysis

The analysis reveals several key findings, including high conversion rates in the early stages of the funnel (app download and user signup), challenges in the user signup to ride request transition, relatively consistent conversion rates in driver acceptance to payment stages, and the pickup stage having the lowest conversion rate. The analysis also highlights the significance of addressing user drop-offs and optimizing the user experience, particularly in the later stages of the funnel. It provides a roadmap for Metrocar's growth and success by improving the user journey and overall service.

3.3 Suggestions from the Funnel Analysis

When it comes to providing recommendations and suggestions based on our funnel analysis on Metrocar, we can't generalize this as there are other factors that contribute to users' conversion and drop off in different categories be it by age group, device used, month of the year, hour of the day and other corresponding factors that relates to each stage of the funnel.

Understanding the interplay between conversion and drop-off rates at each stage of the funnel helps identify specific areas for research and improvement to enhance the overall user journey.

Here are some of my suggestions in relation to different factors are.

1) In relation to the platforms our users use, we can investigate what factors are contributing to the relatively lower conversion rates on all platforms to further optimize this stage.
2) To refine your target customer profile, consider analyzing user behavior and feedback within the age group 35-44 and the "Unknown" age range to identify common characteristics and preferences among these users.
    a) Maintain inclusivity and a positive user experience for users of all age groups, as the analysis indicates that the customer funnel is efficient across different age ranges.
3) While surge pricing can be profitable, it's essential to strike a balance to ensure a positive user experience. Implementing surge pricing should align with the demand and availability of drivers to prevent excessive price increases that might discourage users. Consider implementing a dynamic pricing strategy that adapts to real-time demand fluctuations. This can help optimize pricing while ensuring fairness to users.
    a) During less busy hours, consider running marketing campaigns or offering incentives to encourage more rides. This can help distribute demand more evenly throughout the day.

b) Consider adopting surge pricing during peak demand hours, such as morning and evening rush hours, to maximize revenue.

4) Focus on optimizing the user signup to ride request transition, as it has a substantial drop-off rate. Improve the onboarding process and encourage users to request rides after signing up.
5) Pay attention to the pickup stage, which has the lowest conversion rate. Optimize the pickup process, reduce waiting times, and enhance the user experience at this critical stage.
6) Continue to provide a seamless experience from ride pickup to payment and review stages, as these stages exhibit high conversion rates.
7) Continuously monitor monthly funnel performance trends and address user drop-offs to improve the overall conversion rate and drive growth in Metrocar's user base.
8) Provide clear and concise information to users about what to expect once their ride is accepted. Users may be uncertain about the next steps, so a user-friendly guide or notifications can help.
9) Enhance communication between drivers and users. Delays or communication gaps may lead to users canceling their rides. Real-time updates on the driver's location or estimated arrival time can reduce uncertainty.
10) Offer incentives to encourage users to proceed to the Pickup stage. This could include discounts or promotions for completing rides, which may motivate users to continue with their bookings.
11) Encourage users to provide feedback on why they don't proceed to the Pickup stage. Understanding the reasons for drop-offs at this point can guide improvements.
12) Ensure that the Metrocar app provides a seamless and user-friendly experience from the moment a ride request is accepted to the time the user is picked up. Any technical glitches or user interface issues should be resolved promptly.

13) Ensure clear and timely communication between users and drivers. Users may abandon ride requests if they experience delays or difficulties in connecting with drivers.
14) Monitor driver availability during peak hours to ensure that users are matched with drivers promptly. Implement strategies to manage driver allocation during high-demand periods.
15) Provide responsive customer support to address any issues or concerns that users may have during the Pickup stage. Promptly resolving user queries can improve the overall experience.

By addressing these areas and improving the transition from Driver Acceptance to Pick up, Metrocar can enhance the overall conversion rate in the funnel and provide a better user experience, which is likely to lead to increased customer satisfaction and loyalty. This helps to focus on these strategies and identifying potential pain points in the transition from Apps Downloaded to Pick up, you can work to increase the conversion rate at this stage, ultimately improving the overall efficiency of the funnel.

APPENDIX

SQL Queries

Answer Funnel Analysis Question
Funnel Conversion and Dropoff
User and Ride Level Granularity for Tableau Viz
Funnel Analysis by Platform
Funnel Analysis by Age Range
Funnel Analysis by Hour of The Day
Funnel Analysis by Monthly Conversion
Monthly Funnel Analysis Grouped in Stages

Tableau Visualization

Dynamic Funnel Dashboard
Funnel vs Platforms
Funnel vs Age Range
Monthly Time Series Conversion of Stages

DBML

Data Modeling for Metrocar App