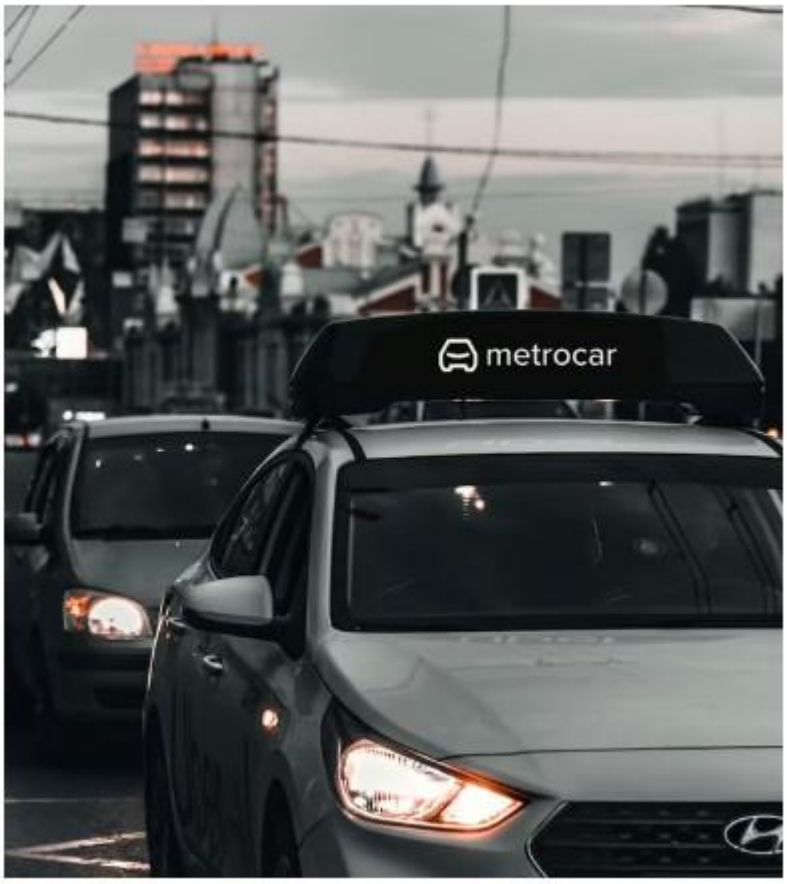


Metrocar’s Funnel Analysis

20th Oct 2023

Mastery Project: DA202

By Mekdes Asfaw

Summary

Metrocar's business model centres around an innovative platform designed to seamlessly bridge the gap between riders and drivers, all within the confines of a cutting-edge mobile application. Metrocar serves as a pivotal intermediary, streamlining and enhancing the ride-hailing experience for both parties involved that is riders and drivers. By providing a user-friendly interface, Metrocar establishes a robust connection between riders and drivers, redefining convenience and efficiency in urban transportation.

The objective of this project is to assess the customer journey within Metrocar, a ride-sharing application, with the intention of pinpointing opportunities for enhancement and streamlining.

Context

Funnel analysis is a pivotal tool for businesses and organizations, enabling them to gain valuable insights into user behaviours and interactions within their platforms. Specifically, for Metrocar, a growing ride-sharing service, this method provides a comprehensive view of the user journey from app installation to critical milestones like sign-ups, conversions, and potential drop-offs.

Metrocar has earned a substantial user base, with 23,608 individuals downloading their innovative application. Among these downloads, 17,623 or 74.65% users have taken the next step by signing up on the platform. This conversion rate is a testament to the user-friendly onboarding process Metrocar provides.

12,406 ride requests have been made and the high number of ride acceptances, at 12,278, indicates a well-functioning matching process that efficiently pairs riders with available drivers.

Ride accepted to ride completed has a significant drop-off of around 6,045 users or 50.77%. This suggests that there might be an issue behind rides cancelation after ride accepted. Possible reasons could include concerns about wating time and functionality of the app.

In terms of transactions, 6,233 payments have been successfully processed, this milestone is also mirrored in the number of completed rides. Additionally, 4,348 reviews have been provided, underscoring an engaged user community eager to share their experiences.

Test of the Result

I have conducted a thorough examination of key performance metrics to understand the journey of our users from initial download to ride completion. Here are the key findings:

The sql query code can be found in Appendix A

Conversion Rates:

Download to Signup Conversion Rate: Conversion Rate = (Signups / Downloads) * 100 Conversion Rate = (17,623 / 23,608) * 100 Conversion Rate ≈ 74.65%

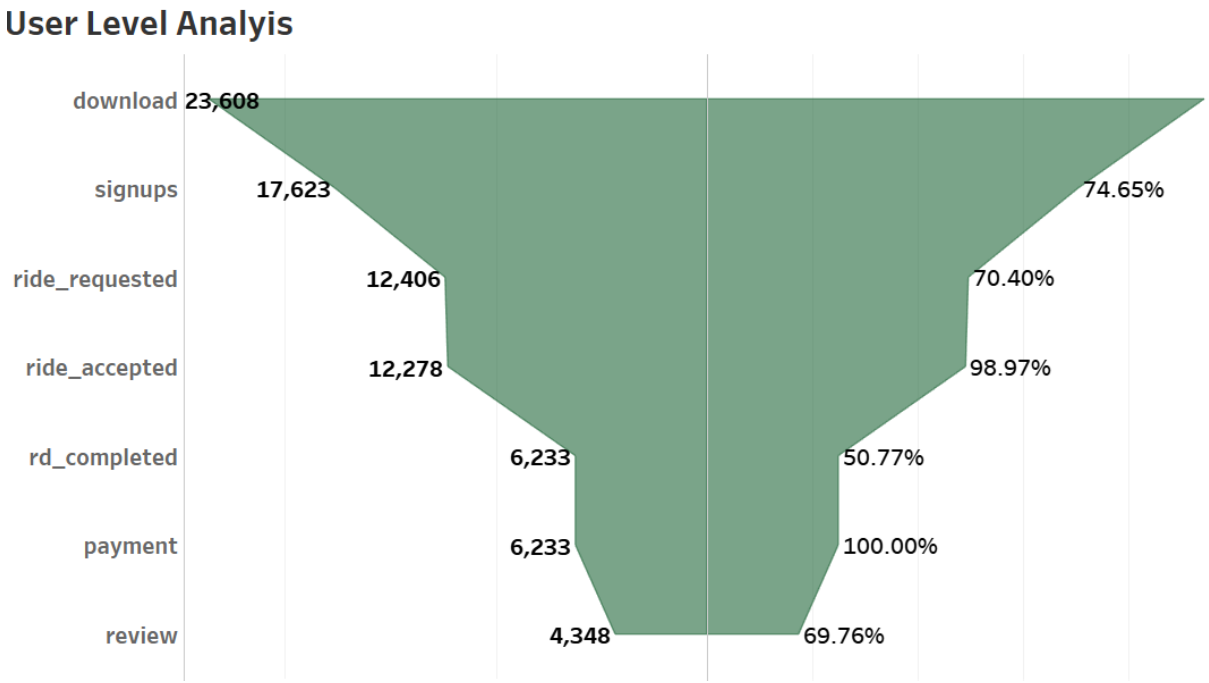
Signup to Ride Requested Conversion Rate: Conversion Rate = (Ride Requested / Signups) * 100 Conversion Rate = (12,406 / 17,623) * 100 Conversion Rate ≈ 70.36%

Ride Requested to Ride Accepted Conversion Rate: Conversion Rate = (Ride Accepted / Ride Requested) * 100 Conversion Rate = (12,278 / 12,406) * 100 Conversion Rate ≈ 98.96%

Ride Accepted to Ride Completed Conversion Rate: Conversion Rate = (Ride Completed / Ride Accepted) * 100 Conversion Rate = (6,233 / 12,278) * 100 Conversion Rate ≈ 50.78%

Ride Completed to Payment Conversion Rate: Conversion Rate = (Payment/Ride Completed) * 100 Conversion Rate = (6,233 / 6,233) * 100 Conversion Rate = 100%

Payment to Review Conversion Rate: Conversion Rate = (Reviews / Payment) * 100 Conversion Rate = (4,348 / 6,233) * 100 Conversion Rate ≈ 69.73%



Drop off Rate:

Downloads to Signups:

Drop-off: 23,608 (Downloads) - 17,623 (Signups) = 5,985

Percentage Drop-off: (5,985 / 23,608) * 100 ≈ 25.3%

Signups to Ride Requested:

Drop-off: 17,623 (Signups) - 12,406 (Ride Requested) = 5,217

Percentage Drop-off: (5,217 / 17,623) * 100 ≈ 29.6%

Ride Requested to Ride Accepted:

Drop-off: 12,406 (Ride Requested) - 12,278 (Ride Accepted) = 128

Percentage Drop-off: (128 / 12,406) * 100 ≈ 1%

Ride Accepted to Ride Completed:

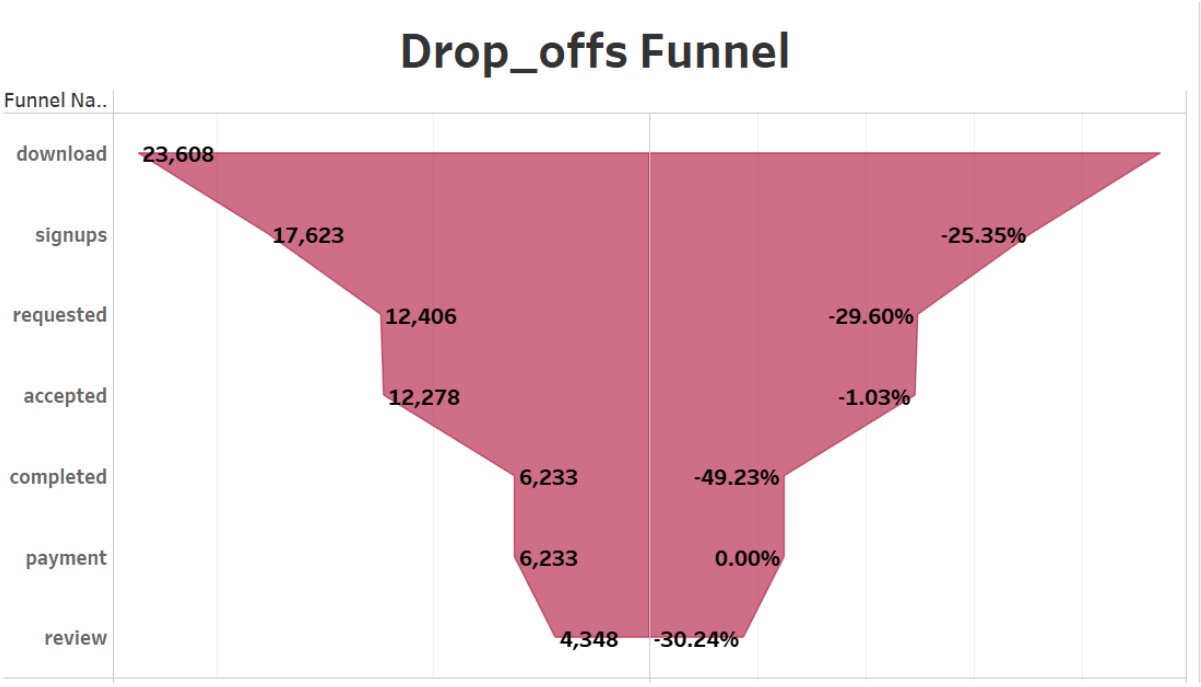
Drop-off: 12,278 (Ride Accepted) - 6,233 (Ride Completed) = 6,045

Percentage Drop-off: (6,045 / 12,278) * 100 ≈ 49.2%

Ride Completed to Reviews:

Drop-off: 6,233 (Ride Completed) - 4,348 (Reviews) = 1,885

Percentage Drop-off: (1,885 / 6,233) * 100 ≈ 30.2%



Number of Users and Conversion Rate in Different Platform

Metrocar presently provide users on three distinct platform which is: iOS, Android, and a web-based interface. It is important to consider factors such as user engagement, conversion rates, and retention rates on each platform. These metrics can provide further insights into the effectiveness of marketing efforts on each platform.

(Detail data can be found in Appendix B)

iOS users

Number of iOS Users: 50,274

iOS has the largest user base among the three platforms. This suggests that there is a significant user base on iOS devices, which could be a lucrative market to target.

Android Users

Number of Android Users: 24,215

While the Android user base is smaller than iOS, it still represents a substantial user pool. Targeting Android users could be a valuable strategy, especially if there is room for growth in this segment.

Web Users

Number of Web Users: 8,240

The web platform has the smallest user base. This indicates that the web platform might not be as popular as the mobile platforms, but it's still an important segment to consider, especially for users who prefer accessing the service via a browser.

conversion rate per platform

Funnel Name	android	ios	web	Grand Total
download	6,935	14,290	2,383	23,608
signups	74.23% 5,148	75.07% 10,728	73.31% 1,747	74.65% 17,623
ride_requested	70.30% 3,619	70.38% 7,550	70.81% 1,237	70.40% 12,406
ride_accepted	98.92% 3,580	98.95% 7,471	99.19% 1,227	98.97% 12,278
rd_completed	51.12% 1,830	50.76% 3,792	49.80% 611	50.77% 6,233
payment	100.00% 1,830	100.00% 3,792	100.00% 611	100.00% 6,233
review	69.56% 1,273	69.91% 2,651	69.39% 424	69.76% 4,348
Grand Total	24,215	50,274	8,240	82,729

Platform

% of SUM(User Count)
50% 1,123%

Drop off rate per platform

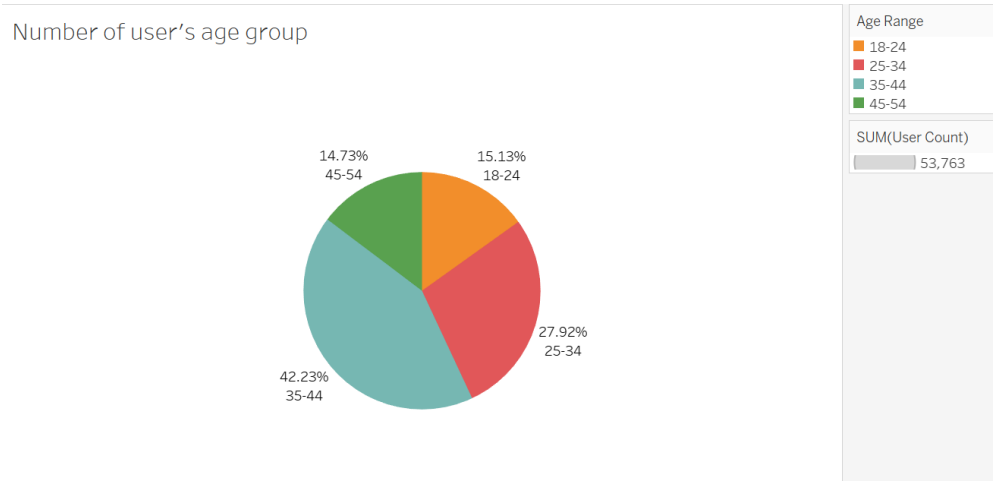
Funnel N..	android	ios	web	Grand Total
download				
signups	-25.77% (1,787)	-24.93% (3,562)	-26.69% (636)	-25.35% (5,985)
requested	-29.70% (1,529)	-29.62% (3,178)	-29.19% (510)	-29.60% (5,217)
accepted	-1.08% (39)	-1.05% (79)	-0.81% (10)	-1.03% (128)
completed	-48.88% (1,750)	-49.24% (3,679)	-50.20% (616)	-49.23% (6,045)
payment	0.00% 0	0.00% 0	0.00% 0	0.00% 0
review	-30.44% (557)	-30.09% (1,141)	-30.61% (187)	-30.24% (1,885)

Platform

Test of the Result Per Age Group

The table shows the funnel analysis per the user age group.

	Age group18-24			Age group 25-34			Age group 35-44			Age grop 45-54		
	total numbe	conv_rate	Drop off	total number	conv_rate	Drop off	total number	conv_rate	Drop off	Total num	conv_rate	Drop off
download	1865			3447			5181			1826		
signup	1865	100.00		3447	100		5181	100		1826	100	
requested	1300	69.71	30.29	2425	70.35	29.65	3662	70.68	29.32	1285	70.37	29.63
accepted	1289	99.15	0.85	2393	98.68	1.32	3628	99.07	0.93	1267	98.60	1.40
completed	670	51.98	48.02	1227	51.27	48.73	1861	51.30	48.70	630	49.72	50.28
payment	670	100.00	0.00	1227	100.00	0.00	1861	100.00	0.00	630	100.00	0.00
revew	473	70.60	29.40	842	68.62	31.38	1332	71.57	28.43	453	71.90	28.10



Downloads to Signups:

All specified age groups have a 100% conversion rate from downloads to signups but there are users whose age group is not specify and have difference on the data. From the registered age group, their conversion rate indicates that once users in each age group download the app, they are equally likely to sign up.

Signup to Ride Requested

All age groups have fairly similar conversion rates from signups to ride requests that is nearly 70.40%, whereas the group with the 35-44 age group having a slightly higher conversion rate,70.68%

Ride Requested to Ride Accepted:

The conversion rate from ride requested to ride accepted is similar across all age groups, ranging from 98.60% to 99.15%. This indicates that once a ride is requested, it is almost always accepted, regardless of age group.

Ride Accepted to Ride Completed:

The conversion rates from ride accepted to ride completed are fairly consistent across age groups, with the 18-24 age group having a slightly higher conversion rate which is 51.98%

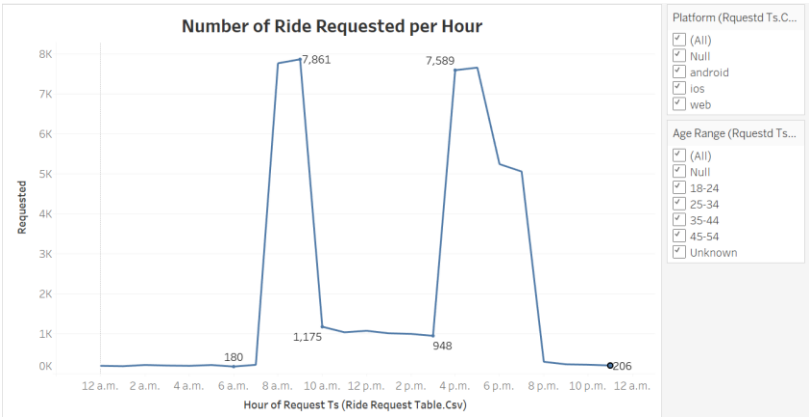
Ride Completed to Reviews:

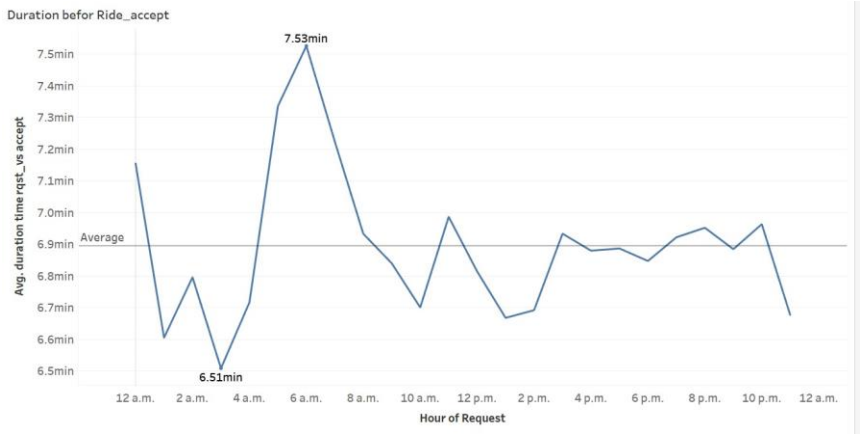
Again, the conversion rates from ride completed to reviews are fairly consistent across age groups, with the 35-44 and 45-54 age groups having slightly higher conversion rates which is 71.57 and 71.70 respectively than for those age group 18-24 and 25-34, with 70.60% and 68.62% respectively.

Distribution of Ride Request throughout a day

Peak Demand Hours:

Based on the data, the first highest demand hours are in the morning (7:30am, 10am) and the second peak hour is in the evening (3pm, 5pm). These are the times when implementing surge pricing may be most effective in terms of generating additional revenue. Outside these periods there is minimal request below 1k. Additionally the average duration time is 6.9 minutes throughout the day, indicating an inefficient ride acceptance process.





Recommendation

Based on the above data, here are the areas that might need attention from the drop of funnel:

Improving Signups: There is a significant drop-off from downloads to signups which is 5,985 users or 25.35%. This could indicate a potential issue with the signup process. It's crucial to make sure the signup process is seamless, user-friendly, and doesn't have unnecessary barriers such as signup form too long and too crowded, or making the sign up for as small as possible for users to move on quickly from this stage.

Encouraging Ride Requests: After signing up, there's a drop-off of over 29% in users who go on to request a ride. This suggests that there might be a barrier or friction preventing users from taking the next step. Consider providing incentives scheme, like free ride for first time and point collection to keep the user engaged to the app when ride need arise. Or making the ride request process more intuitive and making uploading time to be faster.

Addressing Ride Completion Drop-off: There's a substantial drop-off of almost 49% from ride acceptance to ride completion or there is only 50.77% of conversion rate which is the lowest conversion rate from all the funnel step. This indicates that there might be a significant issue in long wait times or unavailability of drivers. It's crucial to investigate the reasons behind this drop-off. It could be related to issues with smooth navigation or the app's functionality. This is the part of our funnel with the lowest conversion rate that is the transition from "Ride Accepted" to "Ride Completed".

To improve this aspect of the funnel, we should focus on minimizing the drop-off between these two stages by taking the following measures:

- *Enhance Communication and Transparency*: Implement features that provide users with real-time updates on their ride's progress, such as estimated arrival times and live tracking of the driver. This can help build trust and reduce the likelihood of ride cancellations.
- *Optimize Driver Allocation:* Implement algorithms that ensure efficient matching of ride requests with available drivers. This can help reduce wait times and increase the likelihood of ride completions.
- *Incentivize Completion:* Consider offering incentives or rewards to both riders and drivers for completing rides. This could be in the form of discounts, loyalty points, or other benefits to encourage a higher completion rate.
- *Gather and Act on Feedback:* Regularly collect feedback from both riders and drivers about their experiences. Use this input to identify pain points and areas for improvement in the ride completion process.

- *Improve Driver Training and Support:* Provide comprehensive training and ongoing support for drivers to ensure they are equipped to handle various situations and provide a positive experience for riders.
- Feedback Loop for Cancelation: Implement a feedback mechanism for users who request a ride but cancel before the driver arrives. Understand the reasons and work on solutions to reduce cancellations.

Based on ride distribution during peak hours:

- **Surge Pricing:** Implement surge pricing during peak hours to balance demand and supply. This can incentivize more drivers to be available during these busy times and it also increase revenue.
- **Peak Hour Strategy:** Allocate more drivers during peak hours, especially between 8am and 9am, as well as between 4pm and 6pm. This will help meet the high demand
- **Promotions and Incentives:** Encourage riders to use the service during low-demand hours. Consider offering promotions, discounts, or incentives during these periods to stimulate demand.
- **Driver Scheduling:** Optimize driver schedules to ensure adequate coverage during both peak and low-demand hours. This can help balance supply and demand.

The average duration time from ride request to ride accept is on average 6.9 minutes throughout the day ranging from 6.5minute to 7.5 minute. But for user to wait 6 minutes until the ride accept is too long. This needs to be improved significantly and work on to reduce the waiting time.

Maintain Efficiency: Continue to focus on maintaining the efficiency of the ride acceptance process.

- **Response Time Targets**: Establish and communicate clear response time targets for drivers to ensure that ride acceptance remains efficient, even during busier periods.
- **Driver Availability:** Ensure that there is an appropriate number of drivers available at all hours to meet the demand and maintain efficient ride acceptance.

Based on the above data about the different platforms: I recommend to allocate a significant portion of the marketing budget towards iOS. With the largest user base, there's potential for substantial reach and impact on this platform. While the Android user base is smaller, it's still substantial. Allocate a portion of the marketing budget to target Android users. While the web platform has the smallest user base, it's still an important segment, particularly for users who prefer using a browser. Consider allocating a smaller portion of the budget to target web users and potentially invest in improving the web experience

Based on the data, all age groups perform quite well throughout the funnel stages. However, if we are looking for the age group that uses the platform mostly and consistently shows high conversion rates at each stage, the 35-44 age range

seems particularly promising. They are more than 42% of the users and also, they have strong conversion rates from signups to ride requests 70.68%, ride accepted to ride completed 51.30%, and ride completed to reviews 71.57%. This group might contain a significant portion of our target customer base so that studding the user persona and doubling down on marketing towards this group (35-44) may turnaround more and more users.

Based on Review Section

Currently, the review section encompasses all kinds of review and user comments. While this approach has its merits, I propose the implementation of separate review sections for both riders and drivers in different category. Thes approach has a potential benefit of:

- More granular Feedback: users can provide more specific and detailed feedback in each category. This granularity enables us to better understand the strengths and areas for improvement in each aspect
- Targeted improvement Effort: With distinct review sections, we can focus our attention on specific aspects of the user experience. For example, if users consistently provide feedback about payment issues, we can direct resources towards optimizing the payment processes
- Competitive Advantage: Offering a more refined review process sets us apart in the market, signalling our dedication to continuous improvement and user-centricity.

Appendix

Appendix A:

https://docs.google.com/document/d/12hUbJ_LU9fuVTCeNitC-ZJlEyGgDvFiaDFKDDCqDvoQ/edit

Appendix B:
https://docs.google.com/spreadsheets/d/1KDXgcCUDAbBMaP7SclPu7oVrPVNwmO9yJtB_D7yV-4I/edit#gid=408060558

Appendix C:
https://public.tableau.com/app/profile/mekdes.asfaw/viz/Metro_Care_Funnel_Project1/MetrocarsStory?publish=yes