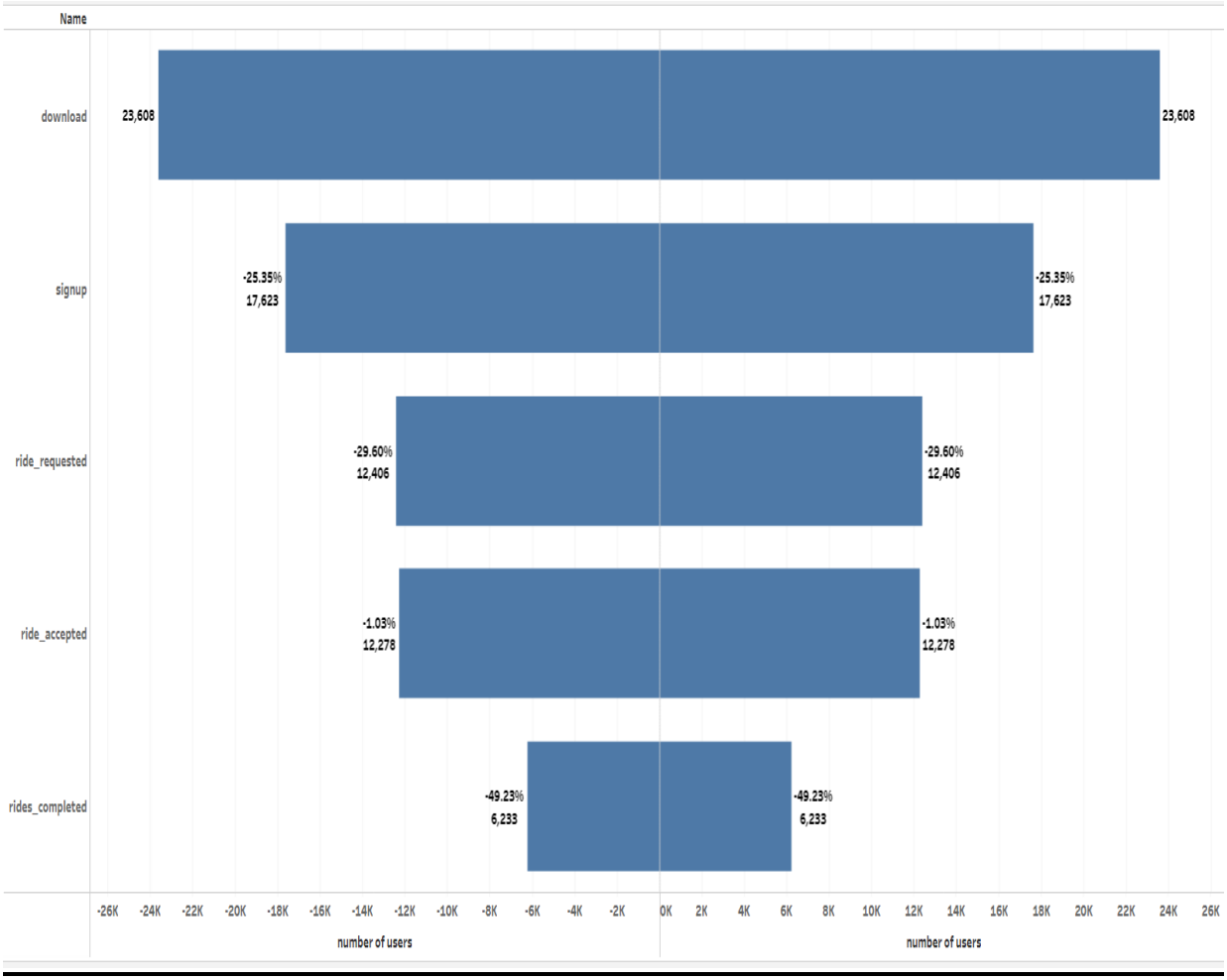
Rwad amasha- Metrocar project report.

Focus of the project:

In my analysis of the metrocar company with the data that was collected in the year 2021 I focused on the funnel and the churn rate of each step that a customer goes through. And that is to determine where our largest churn rate is in the steps that the customer goes through from the moment that he/she downloads the app until the final step in which the customer completes a ride.

The funnel:



The funnel above describes each step of the customers journey and the percentage drop in each step in comparison to the previous one.

Funnel analysis:

From what we can see in our funnel the biggest drop rates are from step 1 (downloading the app) to step 2 (the signup) which is a 25.35 percent drop and then a 29.60 percent drop from step 2 (the signup) to step 3 (requesting a ride through the app) . and finally from step 4 (accepting the request) to step 5 (completing the ride) with almost a 50 percent drop .

Conclusions (digging deeper):

Now that we have a clear analysis of the situation of the Metrocar company we know where to shift our focus which is mainly to look for the cause of the churn rate in the steps above. To determine this we should look at our reviews which are our lead to finding the problem and first of all at our average rating of the company :

average_rating_out_of_5
3.0632989994302578

This mean that our overall rate in 3.06 which is higher than the mean but its not that high.

If we look the first two drops which are from step 1 to step 2 and from step 2 to step 3 I didn't find anything concrete in the reviews that the customers left on the Metrocar app but we can estimate that the drop in these steps can be caused by mainly 2 reasons which are that people do not want to share the things that we are asking for in the signup (personal info) or for actually ordering a ride (in this case it may be their credit card info), while the second main reason for that might be with technical issues. We can try to do some A/B testing in this case to see where our problem is since we can't determine certainly.

Now let's shift our focus to the highest churn rate that we have which is from step 4 to step 5. After some reading in the reviews of the customers I found that the main problem that we have comes from some of the drivers and the drive experience.

Here are some reviews to back this up :

- Horrible service. The driver was reckless and drove well above the speed limit.
- A complete disaster. The driver canceled the ride last minute, leaving me stranded in an unfamiliar location.
- Absolutely disgusted with Metrocar. The driver overcharged me and refused to rectify the issue.
- Regrettable ride with Metrocar. The driver was late, and the vehicle had a strong unpleasant smell.

For this I can suggest that the company should be more thorough with their drivers service and to review our drivers and make some changes in that aspect.

CODES USED :

```
WITH step1 AS
(
SELECT COUNT (app_download_key) AS s1
FROM app_downloads
)
,step2 AS
(
SELECT COUNT (DISTINCT user_id) AS s2
FROM signups
)
, step3 AS
(
SELECT COUNT (DISTINCT user_id) AS s3
FROM ride_requests
)

, step4 AS
(
SELECT COUNT (DISTINCT user_id) AS s4
FROM ride_requests
WHERE dropoff_ts IS NOT NULL
)

,totals AS(
SELECT s1,s2,S3,s4
FROM step1,step2,step3,step4
```

```
)
,funnel AS
(
SELECT 1 AS funnel_steps,
'downloads' AS funnel_name,
s1 AS value
FROM totals

UNION

SELECT 2 AS funnel_steps,
'signups' AS funnel_name,
s2 AS value
FROM totals

UNION

SELECT 3 AS funnel_steps,
'ride_req' AS funnel_name,
s3 AS value
FROM totals

UNION

SELECT 4 AS funnel_steps,
'ride_req_com' AS funnel_name,
s4 AS value
```

```
FROM totals
)

SELECT * , CAST (value AS FLOAT) / lag(value) OVER (ORDER
BY funnel) *100  AS pre_stage
FROM funnel
ORDER BY funnel_steps;

with user_details as
(select app_download_key, user_id, platform, age_range,
date(download_ts) as download_dt
from app_downloads
left join signups
on app_downloads.app_download_key=signups.session_id),

downloads as
(select 0 as step, 'download' as name, platform, age_range,  download_dt,
count(distinct app_download_key) as users_count,
0 as count_rides
from  user_details
group by platform, age_range, download_dt)
,signup as
(select 1 as step, 'signup' as name,
user_details.platform,
user_details.age_range,
user_details.download_dt,
count(distinct user_id) as users_count,
0 as count_rides
```

from signups

join user_details

using(user_id)

group by

user_details.platform, user_details.age_range,
user_details.download_dt),

requested as

(select 2, 'ride_requested',

user_details.platform,

user_details.age_range,

user_details.download_dt,

count(distinct user_id) as users_count,

count (distinct ride_id) as count_rides

from ride_requests

join user_details using(user_id)

group by

user_details.platform, user_details.age_range, user_details.download_dt)

,accepted AS (

select 3, 'ride_accepted',

user_details.platform,

user_details.age_range,

user_details.download_dt,

count(distinct user_id) as users_count,

count (distinct accept_ts) as count_rides

from ride_requests

join user_details using(user_id)

WHERE accept_ts IS NOT NULL

```
group by
user_details.platform,  user_details.age_range, user_details.download_dt)
,completed AS (
SELECT 4 , 'rides_completed',
user_details.platform,
user_details.age_range,
user_details.download_dt,
count(distinct user_id) as users_count,
count (distinct dropoff_ts) as  count_rides_comp
from ride_requests
join user_details using(user_id)
WHERE dropoff_ts IS NOT NULL
group by
user_details.platform,  user_details.age_range, user_details.download_dt)

select * from downloads
union
select * from signup
union
select * from requested
union
select * from accepted
union
select * from completed
order by 1,2,3,4,5;
```

```
SELECT avg (rating) average_rating_out_of_5
FROM reviews;
```

```
SELECT review
FROM reviews;
```

Link to interactive dashboard with funnel:

https://public.tableau.com/app/profile/rwad7818/viz/metrocarproject/Story1