Design Marketing strategy for Divvy bike in Chicago

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Understanding the data problem

Dataset
Lack demographic information of customer: Gender, age, register date, userID

=> For user types, assume Divvy dataset only divide users into 3 clusters: Single ride/Pass Day and Annual Membership

Dataset
- Many null results of start and end station name/id - End time > start time

=> Exclude NULL results of start and end stations
=> Exclude result trip duration < 0

Understanding Divvy

Target audience

Currently, Divvy use demographic segmentation for positioning product and targeting a customers.

- Single ride
- Pass day
- Annual membership/Divvy for everyone/University membership/Divvy for Business

Divvy service

Single ride

- $1 to unlock (for ebike)

- $0.39/min for the duration of a ride

Pass day

- $15/Day
- Unlimited 3-hour classic bike rides
- an extra $0.16/min (>3h) to keep the same bike

Annual membership

- $10/month, $119/annually

- Unlimited 45-min classic bike rides

- An extra $0.16/min after 45’

- $0 unlock, extra $0.16/min during a ride (ebike)

- Speed up with over 50% off ebikes

Single ride

=> Main target customer in this project

- Single Ride is designed for spontaneous one-way trips/ 1st

Pass day

=> 2nd target customer in the project

- Currently, Pass Day targets tourists

Assumption

- Casual take a ride < 30 to ensure fee < $15

Assumption

- Some locals riding bikes occasionally also use Pass Day to travel Chicago destination (healthy, saving, convenient)

Questions?

- How 2 user types changes over times (in hour, weekday, month)?

- How many casuals take a ride more than 30’

- How many casuals/members take a ride in 45’ - 3h?

- How bike types change over time and user types?

- What are the popular routes of 2 user types?

Divvy customers' behavior in 1 year period

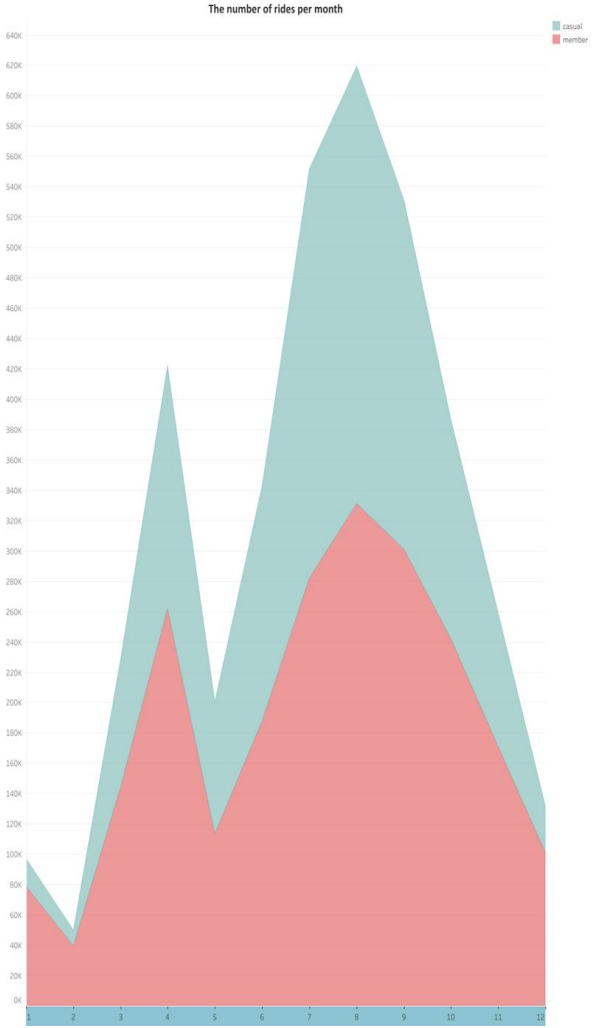
Check Dashboard here

How 2 user types changes over months

- **Ride distribution in monthly basic**
  - + #rides gradually increase from June to August and decrease after that
  - + April is higher that might be dataset count April in 2 years (2020, 2021) and other months count once
  - + April, high school reopen after 13 months

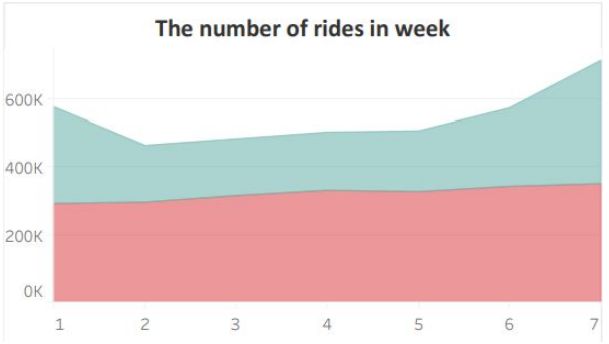
-> Assumption: Weather (temperature, wind, humidity) and Government policy in COVID19 highly influences #rides

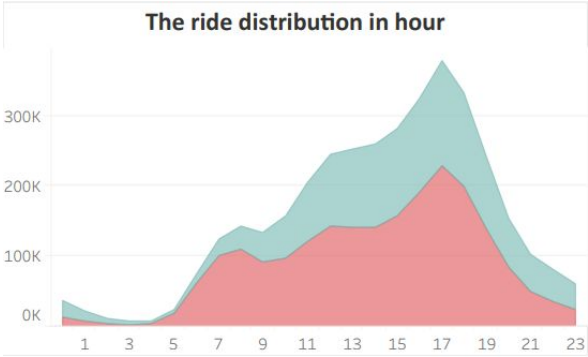
  - + #ride trend btw 2 users are similar, bigger effect on casual types



How 2 user types changes over times in week and hour

- **Ride distribution in weekday**
  - + No significant change about #ride of members in weekday and weekend (weekday > weekend)
  - + A big difference in Friday and weekend about #ride of casual
  - + 15 - 17h is the favorite hour for going outsides in Weekend

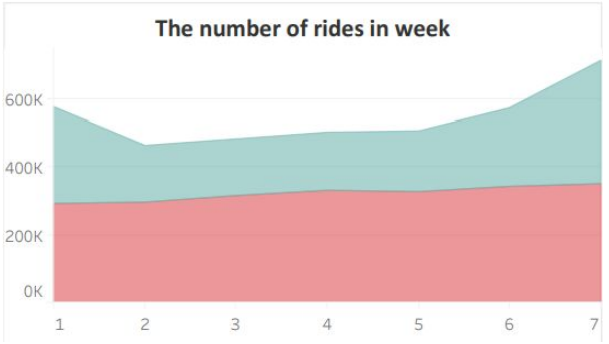




How 2 user types changes over times (in month, week, hour)?

- **Members users**
  - \+ #ride > 20000 in 5-8am and 15-19h in weekday (rush hours)
  - \+ #ride is high in weekday in 12-16h
  - \+ Members have riding in the evening in Friday and Thursday

=> **Assumption: riding habit/back home late after work**

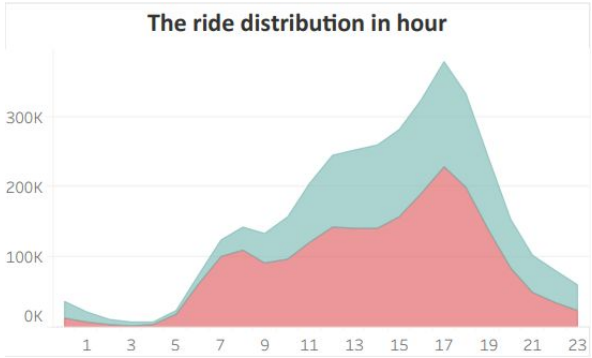


- **Casual users**
  - \+ #rides in weekend are much higher than weekday (10am - 6pm)

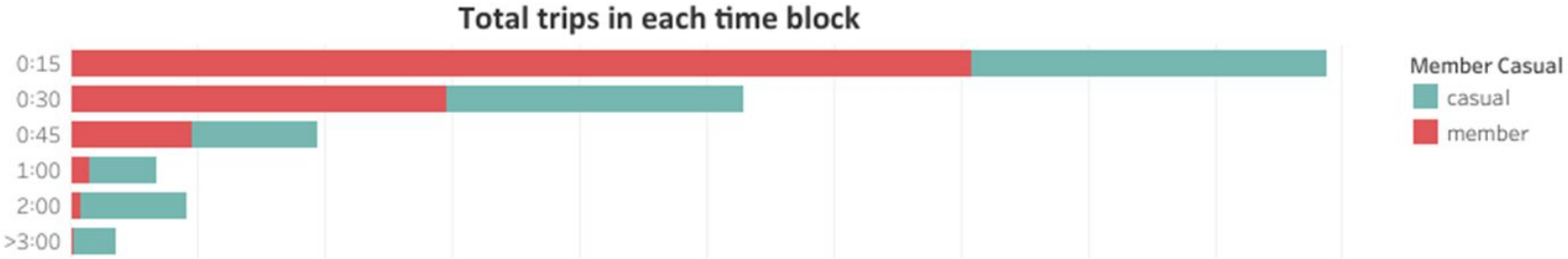
-> assumption: main purpose of using service is visiting Chicago

  - \+ In weekday, 17-18h has higher #ride ~ other hours
  - \+ Saturday evening (19-23h), casuals take ride higher than other days in week

=> Assumption: riding habit



How many casuals take a ride less than 30’



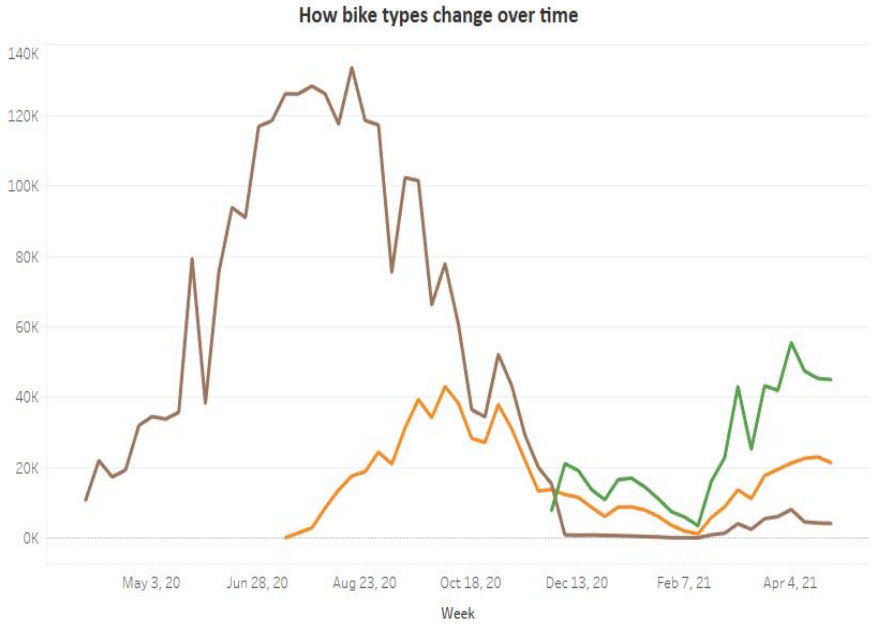
- **Member users**
  - + Almost take a ride with less than 30’
  - + Reduce from 45’ to long time
  - + Only > 5000 rides with >3 hours

=> Assumption: Members use service for daily activities (works, habit,...)

- **Casual users**
  - + The majority take a ride with less than 30’
  - + #rides > 1h is much higher than members
  - + > 66000 rides with > 3 hours

=> Assumption: Pass Day is popular with casuals

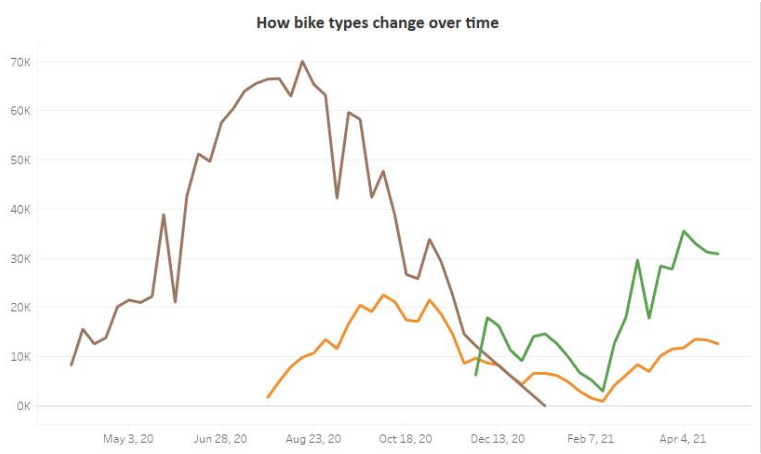
How bike types change over time and user types?

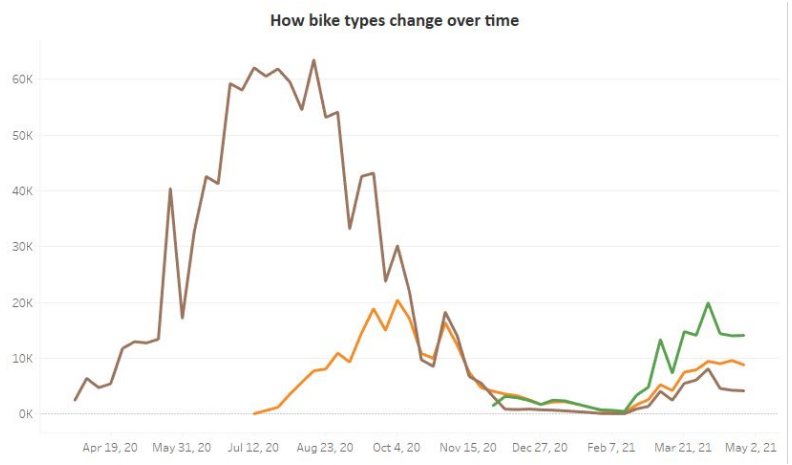


- Docked bike was the primary choice since 12/7 (electric bike launch) and 29/11 (classic bike launch)
-> The choice of docked bike decrease significantly

- Electric bike is popular in 16/8 - 22/11 then it is replaced by classic bike

How bike types change over time and user types?





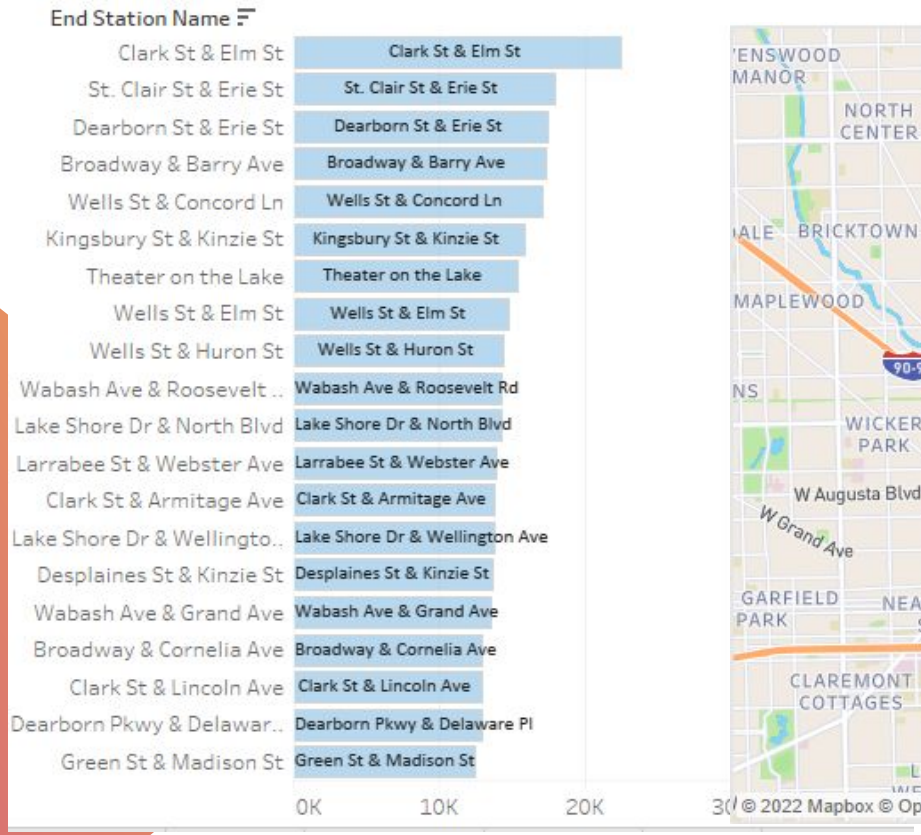
- **Member users**
  - \+ 10/1/2021, members has not used docked bike -> classic + electric
  - \+ Classic bike is a priority choice after 7/2/2021

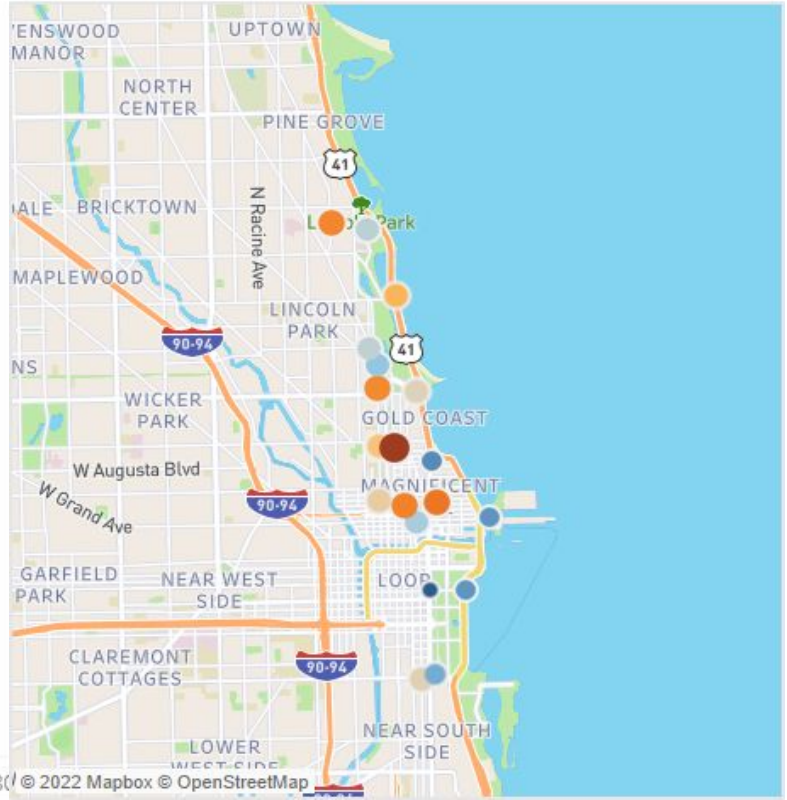
- **Casual users**
  - \+ Due to Gov policy + weather, total rides of casual were much lower and increased since 14/2
  - \+ Priority choice: classic, electric, docked

Assumption: Divvy aimed to increase classic + electric bike due to #bike choice + website

What are the popular destination for both users?

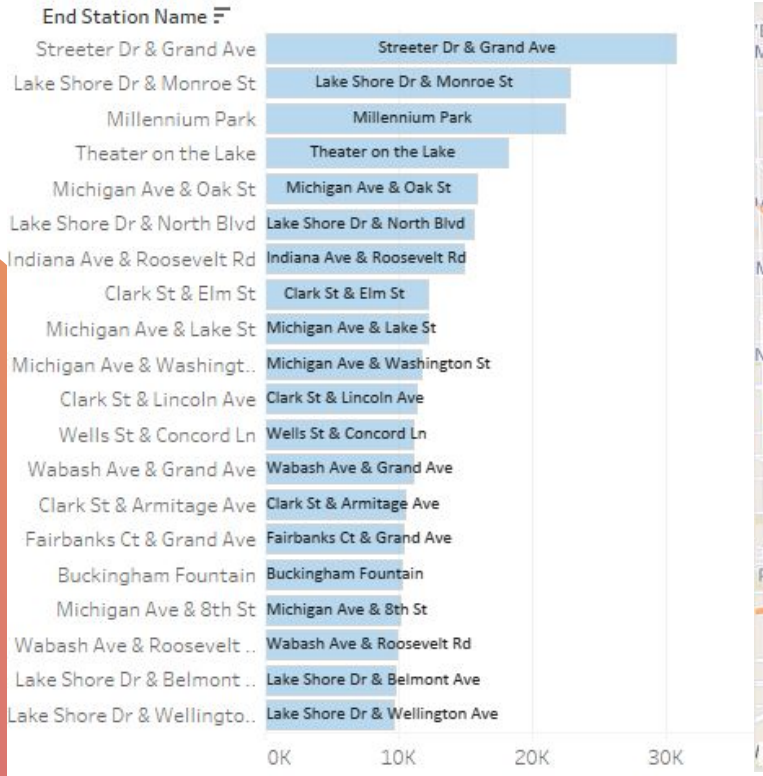
Members' favorite location

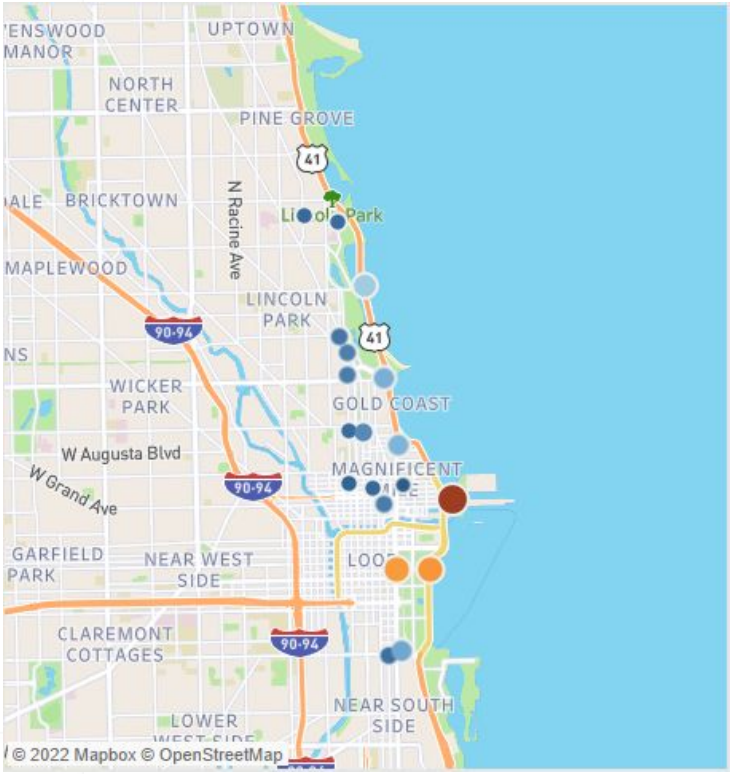




What are the popular destination for both users?

Casuals' favorite location





Marketing Strategy and tactics to convert casual to annual membership

Assumptions

Assumption 1

- Without restriction of Government (COVID19)

- Exclude University and Business membership

- Casual users use Divvy for riding habit in the evening and going to grocery store

Assumption 2

- Without restriction of Government (COVID19)

- Exclude University and Business membership

- Local casual users buy Pass Day to visit Chicago

Campaign

WE CARE

Your Pocket

Your Health

Your Network

Rationale

Assumption 1 (high #ride in the evening)

- Casuals want to look sporty and care about health
- Casuals see Divvy convenient for short rides, speed (compared to bus/car), reasonable price (compared to car)
- Casual thinks they dont use bike as much as to buy annual membership vs actual spend more

=> Release report about distance, riding time, expense, common visiting places,... weekly

Assumption 2 (high #ride in the evening, weekend)

- Casuals find leisure, balance after work but just occasional (after burning out)
- Casuals want to connect with friends, create new network (high #ride in weekend), just occasional
- Because of occasional rides, annual membership might not be suitable with them

=> Suggest interesting place, traveling tips, mental caring, expand stations,... help casuals engaged with Chicago and take care physical and mental health

Strategy

Segmentation	- Demography: 20 - 50 years old - Geography: Current stations - Behavior: ride for health, - Psychology: Create new network, find healthy and balance after work
Targeting	Mass Marketing
Positioning	Friendly, Connected, Greeny

Campaign

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Designing Marketing Experiment

Experiment design

Buyer persona

- Demography:
  + 20 - 50 years old
  + Homemakers
  + White labors
- Geography: Current stations
- Behavior: ride for health,
- Psychology: Create new network, find healthy and balance after work

Communication channel

- TV -> homemakers
- Web -> White labors (finds balance after a long-time working in the office)
- billboard -> casual (spotlight and butterfly effect)

A before-after design experiment

Variable

- The independent variable: the advertising budget.

- The dependent variable

+ %increase of new customers

+ %increase in #ride of old customers

+ %increase of sales

Market

- The control market: North West community

- The experiment: South community

(The test and control markets were chosen as they were an expanded area of Divvy in 2021)

Duration

In 3 months

- Before: May - June

- Experiment: July - September

As 2020 stat, October is the month having the highest #rides
-> the successful before-after campaign will support sales in October.

Anticipate issues

Not typical results

The before and after experiments are during peak traveling season

-> not apply for the winter season

(#ride in winter << season peak)

New trends

- New transportation trends (scooter, car, skate,...)
- New pandemic
- Change in Government support

Budget change

Due to financial disruption of company

Post-COVID19

Unexpected change in customer behaviors

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LinkedIn