Flying Taxi

KPI and Hypothesis

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Identify a product objective for Flying Taxis launch. The product objective will guide your KPIs. Identify what Flyber should optimize for. Your objective should be centered around one the following focus areas:

- User Acquisition
- User Engagement
- User Retention
- Profitability

Product Objectives

1. Objective 1-Create an ontime, safe, and online-managed affordable Flying Taxi service for short haul travel for private and business commuters.
   (KR1) Development of Minimum Viable Product(MVP) for beta in 3 months
   (KR2) Legal and compliance may take longer time than anticipated

1. Objective 2-Provide an app that allow users to book, monitor and track flying taxi services in real time with backend user-event data management.
   (KR1) Achieve decreasing bounce rate as user number increases
   (KR2) Compliant with the industry average page load time requirement

1. Objective 3-Provide 2 Free flying taxi rides(one free ride per month) as promotional incentives for new registered users. Offer discount rates for returning users for every 10 rides.
   (KR1) Increased user registration up to 2000 in 6 months
   (KR2)Limited budget for marketing may affect promotional giveaways

Reasoning behind the objective focus area

Air Taxi is a completely new service in an industry that is facing a rebirth in the advent of technological innovations. It will require new regulations, guidelines and approval. Most importantly, a new user mindset for new model of short distance transportation. A great deal of effort will be required to convince and migrate users from Taxi Cab to short-haul Air Taxi.

For this reason, user acquisition is more relevant and strategic at this stage of the development.
Knowing that there is real value in the product, user engagement is secured and presumably guaranteed.

User Retention and Profitability will be next in the game plan.

Formulate 3-5 Key Performance Indicators (KPIs), to measure if the product is heading towards the right direction based on your objective

Key Performance Indicators

Key Performance Indicators (KPIs) - Flying Taxi

1. Complete the development of Minimum Viable Product(MVP) for the Flying Taxi and its booking and management app in about 3 months or less.
2. Conduct and complete Beta test in about 60 days or by the first 5 months with zero safety issues. All priority level 1 and 2 fully addressed and closed.
3. Achieve 2000 registered registered users 6 months after launch
4. Achieve decreased or downward-trending Bounce Rate within the first 6 months of deployment
5. Comply with the industry standard Average Page load Time of less than 2secs

Create hypotheses around what thresholds your KPIs would need to hit in order to determine success

Hypothesis - Created Around KPI Thresholds

1. If we have a Minimum Viable Product available in 3 months, then we will be a ble to begin formal test and QA, which will pave way for early adoption before final launch.

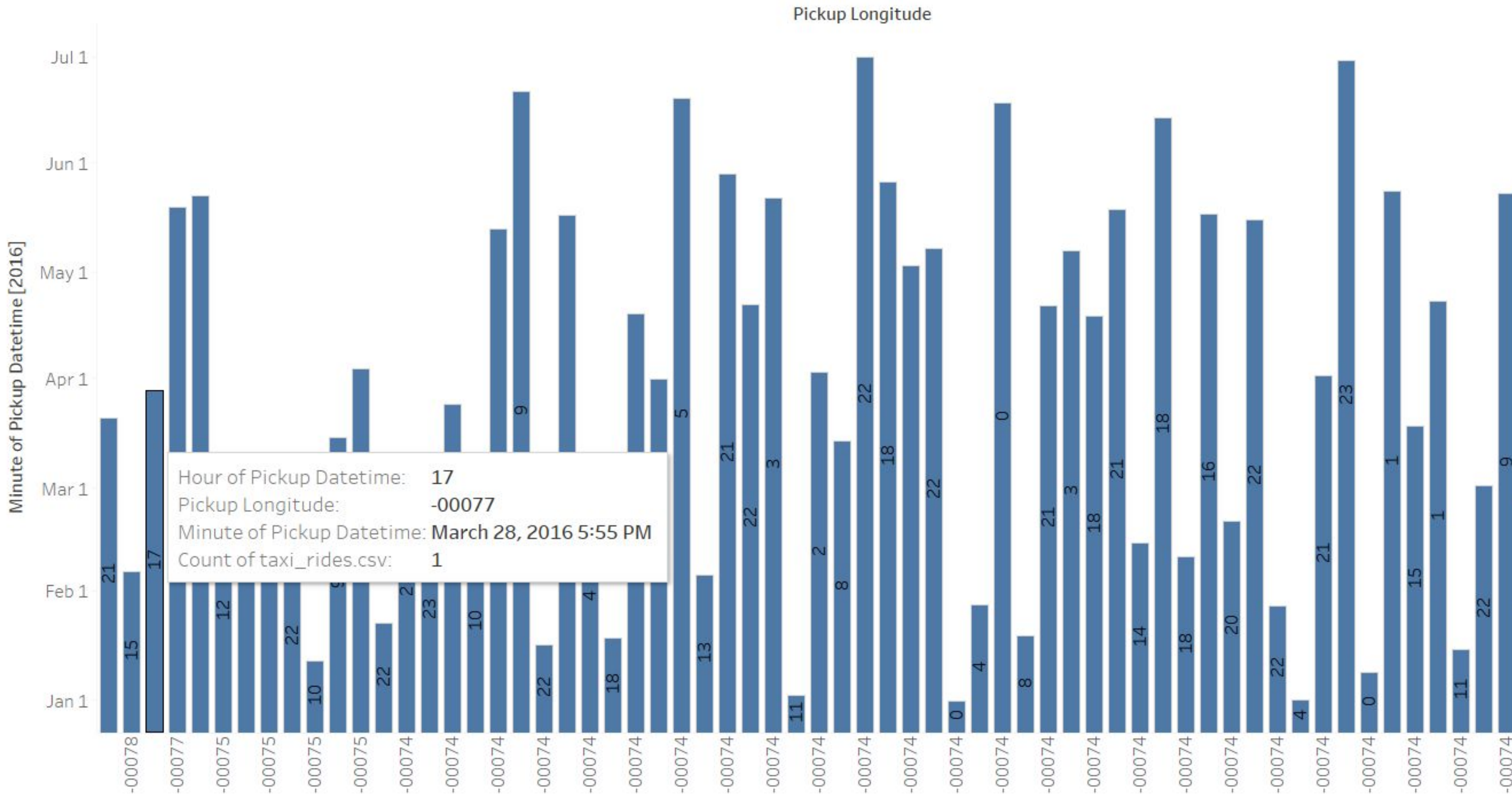
2. If able to conduct Beta in 60 days or within the first 5 months window with all technical and safety issues resolved, we can get ahead with legal and compliance, saving time and on schedule because this is usually a major hurdle area.
3. If able to achieve 2000 active registered users in about 6 months time frame, then there will be a realistic projection of the target on Total Addressable Market, which will open more opportunities for funding.

4. If we are able to achieve the industry standard Average Page Loading time of less than 2 secs, then users are more likely to return to the page and spend more time using the resources offered because users tend to avoid a slow loading page or app in general.

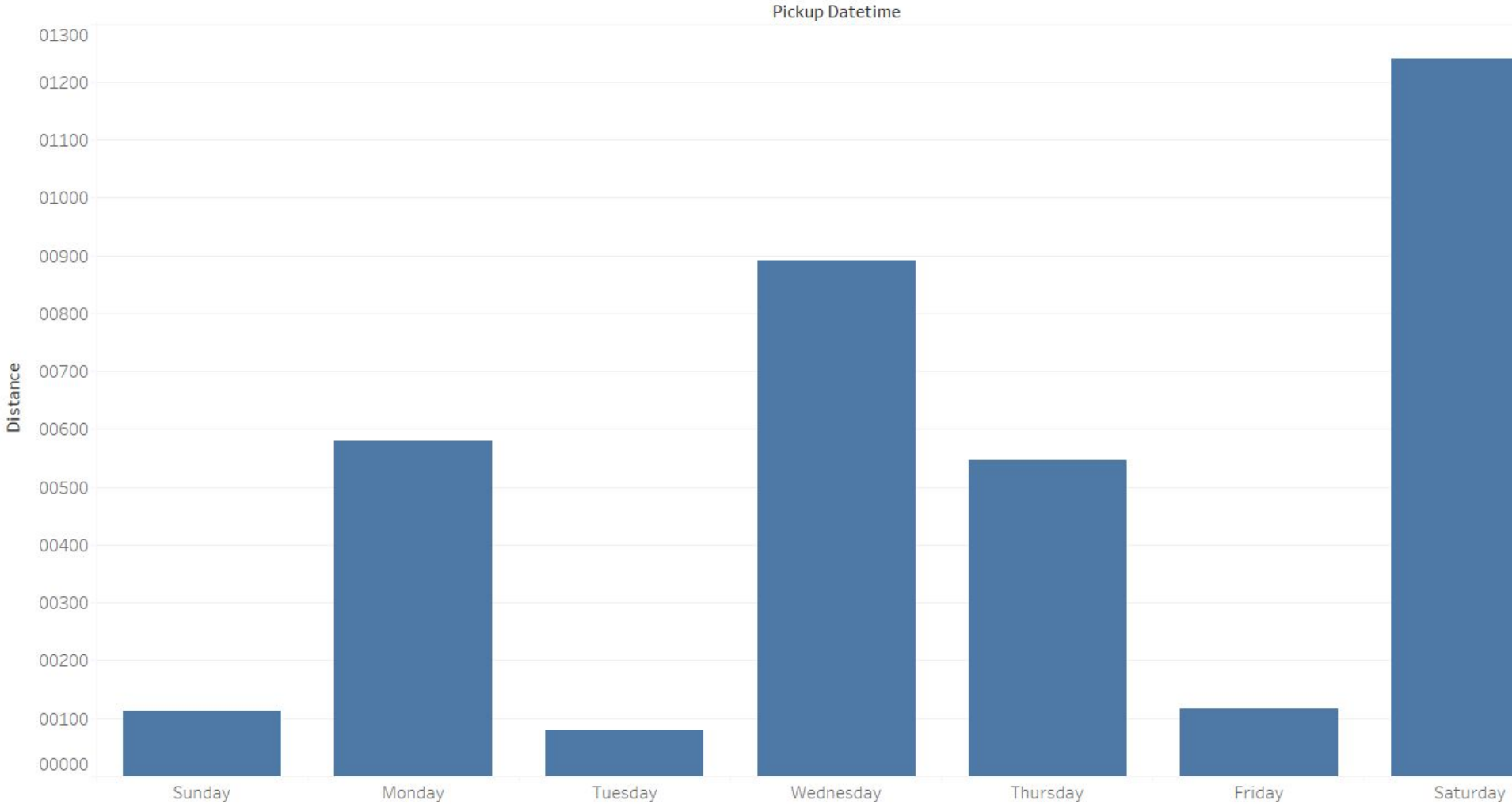
Decisions are based on the insights you extract, we'll need to know the feature set we'll include in the MVP to measure viability, while keeping operational expenditure under control:

- What times/days of operation should the service run for?
- How many pick-up / drop-off nodes should we have?
- Where should the nodes be located?
- Should we initially use copters or homegrown hardware?
- Should the pricing be fixed or dynamic? At what rates?

Time Of Pickup



Days & Rides Volume



Answer Slide

- What times/days of operation should the service run for?

Research data revealed higher pickups from 5 - 10.00 PM, service should be available throughout the day. Could change as we collect more data. (see slide 49)
Research data shows higher rides volume on Monday, Weds. Thursday and Saturday. However, service should be made available Monday through Saturday (see slide 50)

- How many pick-up / drop-off nodes should we have?
  Initial deployment should start with 4 Pick-up / Drop Off nodes (to be expanded based on growth). Two ground stations and Two rooftop stations.
- Where should the nodes be located?
  2 Locations at the lower-side Business District
  1 location near or close to JFK (need more data on the exact location)
- Should we initially use copters or homegrown hardware?
  Initialy, establish market presence with copters, later move to more environmentally compliant craft
- Should the pricing be fixed or dynamic? At what rates?
  Fixed for the initial deployment at about $75(Competitive pricing strategy).

Determine the MVP sample size & time period allotted estimated to come to a conclusion on hypotheses.

Baseline Conversion Rate

54 %

Your control group's expected conversion rate. [?]

Minimum Detectable Effect

7 %

The minimum relative change in conversion rate you would like to be able to detect. [?]

Statistical Significance

95%

95% is an accepted standard for statistical significance, although Optimizely allows you to set your own threshold for significance based on your risk tolerance. [?]

Sample Size per Variation

2,000

Estimated existing conversion rate (%)	10 %
Minimum improvement in conversion rate you want to detect (%)	20 %
Number of variations/combinations (including control)	1
Average number of daily visitors	2000
Percent visitors included in test?	2 %

Total number of days to run the test: 90 days

Answer Slide

MVP sample size - 2000 users

Time allotment - 6 months after launch

Assumptions - All conditions for KPIs are on target

Create an instrumentation plan for the events needed to be collected and logged, in order to be able to physically measure your KPIs.

Events

Event - userAccountCreated
Definition - This event triggers whenever a new user provides all the necessary information for registration and click “Register” button in theFlying Taxi user registration page.
Properties - user_id, use_name, user_email, resgistration_timestamp, user_profile, user_count

Event - rideOrderCompleted
Definition - Triggers when a user viewed the Flying Taxi schedule page, select ride and destination, then cliked “Complete Ride Order” completed a ride booking order.
Properties - order_id, passenger_count, rider_id, booking_timestamp

Event - paymentProcessedSuccessfully
Definition - This event is triggered when a user complete a Flying Taxi booking order and clicked “Process Payment” button.
Properties - user_id, user_fullname, user_address, user_credit_card_number, security_code, expiration_date

Event - riderPickedUp
Definition - This event is triggered when the user is picked up and clicked “Onboard Flight Confirmation” button
Properties - rider_id, taxi_ride_id, passnger_count,pickup_timestamp, pickup_longitude, pickup_latitude

Create a qualitative feedback survey questions for users after their ride, to further understand and optimize the product for future iterations.

User Feedback Questions

1. Is this our first experience using a Flying Taxi?
2. On a scale of 1 to 5, how would you rate your experience?
3. How likely are you to recommend Flying Taxi to a friend?
4. What will you like to see improved?
5. What did you find mostly impressive about the experience?
6. Will you continue to use a flying Taxi?
7. How easy was it to book a ride on a scale of 1 to 5?
8. Were you able to track and monitor the ride easily or conveniently?
9. How convenient is the pickup and dropoff location using a scale of 1 to 5?
10. Do you consider the ride safe?

Summarize Key Elements of the Proposal

Proposal - Flying Taxi

- Flyber is a Flying Taxi service for short-haul travel in and out of densely populated metropolitan city. Service is planned to be offered using newly designed portable aircraft capable of vertical lift, and powered with a more quiet and environmentally suitable electronic engines.

- Flying Taxi provides a relief to various pains caused by traffic congestion. The pain associated with these problems comes in different forms. Notably, financial, loss of time and productivity.

The Benefits

1. Flying Taxi is fast, reduces travel time significantly. For example a 1.5 hr commute could easily be done in 15 or 20 minutes.
2. Reduces road congestion in the sense that fewer vehicle will travel the road
3. Savings on road infrastructure maintenance and operating cost
4. Environmental pollution reduction with fewer combustion engine on the road
5. Flying Taxi users will have more relaxed time thereby improving quality of life
6. Flying Taxi can travel in a non-fixed route, flexible route

Answer Slide

- The target population for the Flying Taxi is about 2,000 for the initial experiment. Overall target sample is about 50,000. The sample is spread across New York, New Jersey, Rhode Island and Pennsylvania metropolis. I chose this sample because the demographics travel to and from the financial district frequently. The sample is ideal for proof of concept.

Among the pain points are:

- Road transportation in and out of major metropolitan or urban cities face heavy traffic congestion regularly, which leads to frequent delays and loss of time. The time loss also affect productivity.

- The cost of road transportation infrastructure (construction, operation and maintenance), including terminals and bridges are increasingly high and takes much longer time to achieve. Very often, there are more call for increase in infrastructure spending.

- Transit system is another costly project for federal, state and local governments. So many red tapes, including regulatory are involved.

- The average citizen is significantly affected privately, publicly and with diminishing productivity.

Research supporting material

Determining the exact cost of road infrastructure depends on several factors, which is quite complicated.
Supporting material for transportation cost analysis is available at : Link
Road Infrastructure Cost Analysis

Negative Effects Of Traffic Congestion

The cost to develop and maintain mobile Air Taxi infrastructure is significantly less compared to road infrastructure. This is beneficial for the the government and the society in general.

Risks

- Risks involved, known unknowns that we'll still need to monitor post-launch

1. Extended time to work through compliance related issues (Local/State/Federal)
2. Securing rights for more Pickup and Dropoff locations in potential high volume areas
3. Impact of bad weather conditions on scheduling and overall business model
4. Purchase or Lease agreement for more suitable and environmentally compliant crafts
5. Keeping operating cost under budget
6. Unexpected decreasing customer retention

Cross-functional Stakeholders

- Cross-functional stakeholder teams that will need to be involved

Development team/Scrum Team

- IOS Engineer
- Android Engineer
- Software Engineer (Lead)
- Software Engineer

Product Manager

QA and Test Engineer

Legal and Compliance

Product Marketing Manager

Customer Service