

Applying Iterative Design Principles to a Live Product



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IDENTIFY KPI

BUSINESS MODEL FOR FLYBER

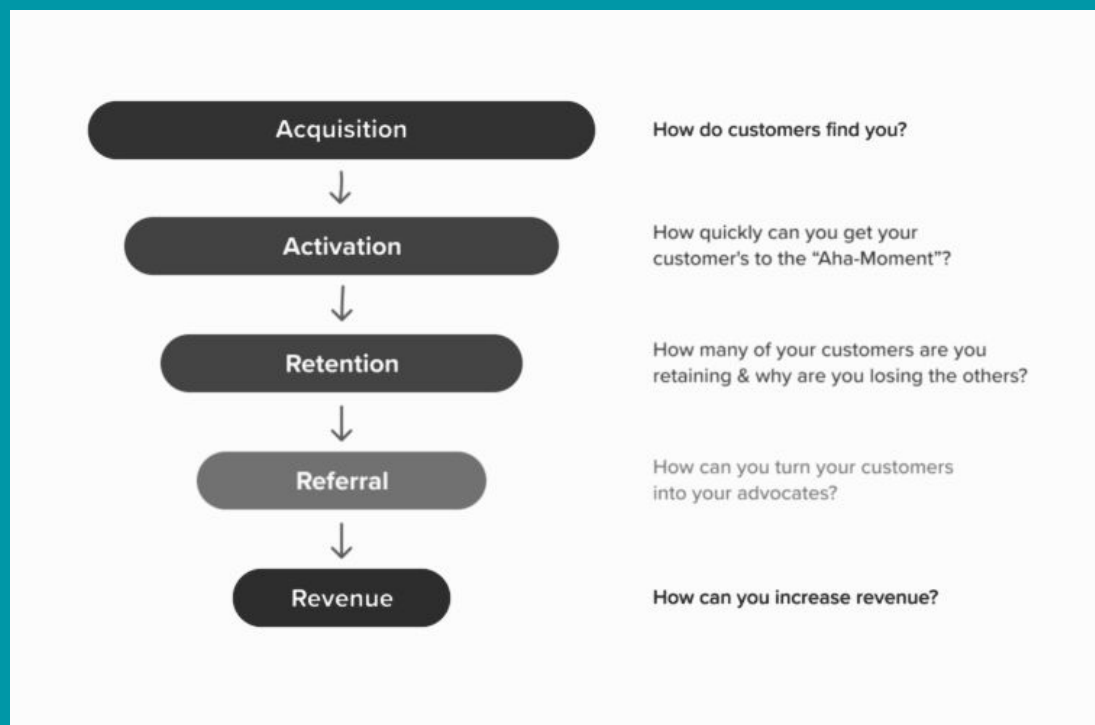
Before we figure out our KPI it is important that we finalise the business model for Flyber App.

We have the following common business models:

- **eCommerce**: Customer pays for every purchase.
- **Software as a Service (SaaS)**: Customers have access to the software for as long as they have paid for.
- **Freemium**: Customers can enjoy basic benefits for free for lifetime, however have to pay when they want to upgrade for a certain feature

Keeping in mind the above model, we can safely say that Flyber is a **SaaS** product because you book a ride and pay for it and use this service for a limited period.

We can divide the customer journey into Growth Funnel . The metrics in growth funnel are called Pirate metrics (AARRR)



IDENTIFY KPI AND MEASURE FACTOR

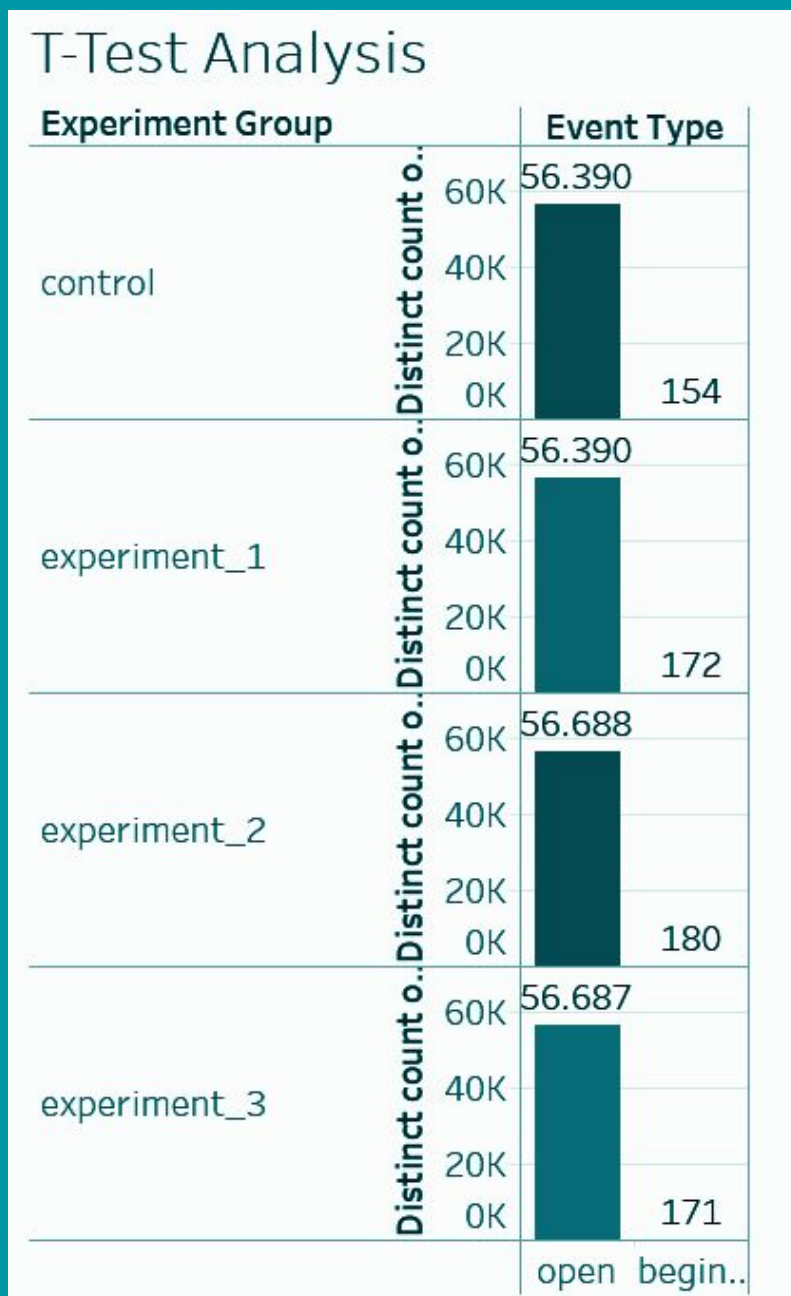
Funnel	KPI	Measure
Acquisition	- No. of users per day - No. of users from neighbourhood	Using the event log, we can filter unique users count for the session 'open'
Activation	No. of users at search stage	Using the event log, we can filter unique users count for the session 'search'
Retention	No. of repeat user	with the current event log these metrics cannot be ascertained however we can instrument data to calculate them
Revenue	CAC, Feedback, CLV	with the current event log these metrics cannot be ascertained however we can instrument data to calculate them
Referral	- No. of users that click on referral link - No. of users acquired through referral	with the current event log these metrics cannot be ascertained however we can instrument data to calculate them

Once we look at the event log, we can easily determine that growth rate of the no. of users has been declining. We need to analyse this further to see where the users are dropping off more. Once we have analysed, then we can work toward figuring out some solution to reduce the drop-off.

EXPERIMENT ANALYSIS

FIRST MULTIVARIATE EXPERIMENT AND RESULT VISULIZATION

Group	Font size	Button zize	Tip Inclusion text	Button Text	Button Content
Control	normal	normal	yes	normal	Book Flight
Experiment 1	normal	normal	yes	normal	Fly now
Experiment 2	small	large	no	smaller	Book Flight
Experiment 3	small	large	no	smaller	Fly Now



SIGNIFICANCE TEST

- In order to perform a t-test we first need a null hypothesis and then we can compare it with our experimental hypothesis:
 - Null hypothesis: Users do not convert better in the test state than in control state. In this case open and begin ride
 - Alternative hypothesis: User will convert better with the test case better.
 - Confidence interval: 95 %
 - P-value < 0.025 will indicate that a given experiment has statistical significance and NULL hypothesis will be disregarded.

Based on the statistical calculation, depicted in the next slide, none of the experiments yielded better conversion as the control. Hence none of the experiments will be moved forward.

EXPERIMENT 1

	Visitors	Conversions		Conversion rate
A	56390	154	→	0.27%
B	56390	172	→	0.31%

Hypothesis ⓘ ☐ One-sided ☒ Two-sided

Confidence ⓘ ☐ 90% ☒ 95% ☐ 99%

Calculate

Result not significant!

Variant B's conversion rate (0.31%) was 11.69% higher than variant A's conversion rate (0.27%), but you cannot say, with 95% confidence, that variant B will perform better than variant A.

Power	p value
31.55%	0.1591

EXPERIMENT 2

	Visitors	Conversions		Conversion rate
A	56390	154	→	0.27%
B	56688	180	→	0.32%

Hypothesis ⓘ ☐ One-sided ☒ Two-sided

Confidence ⓘ ☐ 90% ☒ 95% ☐ 99%

Calculate

Result not significant!

Variant B's conversion rate (0.32%) was 16.27% higher than variant A's conversion rate (0.27%), but you cannot say, with 95% confidence, that variant B will perform better than variant A.

Power	p value
52.29%	0.0843

EXPERIMENT 3

	Visitors	Conversions		Conversion rate
A	56390	154	→	0.27%
B	56687	171	→	0.30%

Hypothesis ⓘ ☐ One-sided ☒ Two-sided

Confidence ⓘ ☐ 90% ☒ 95% ☐ 99%

Calculate

Result not significant!

Variant B's conversion rate (0.30%) was 10.46% higher than variant A's conversion rate (0.27%), but you cannot say, with 95% confidence, that variant B will perform better than variant A.

Power	p value
26.43%	0.1848

FUNNEL AND SEGMENT ANALYSIS

USER STEPS



DROP OFF RATES FOR EACH STEP

Drop off rate by event type

Event Type	% Difference in Distinct count of User Uuid from the Previous Event Type	Distinct count of User Uuid
open		81,557
#_of_users	-28.32%	58,461
search	-38.82%	35,767
begin_ride	-98.11%	676

USER SEGMENT ANALYSIS

- Based on the drop off analysis shown in the previous slide, we observe that there is a significant drop at **search and begin_ride**.
- In order to analyse this further, we will do a segment analysis. Dashboard shows segment analysis.
- Segments are groups of users that share the same traits, which in our case will be **age** and **location**

Key observations

Most users belong to age group 50+

- The drop off rate for age group 50+ is less than the other age brackets for the the first stage of our user flow
- The search stage has a difference of **30%** as compared to the other age groups. We have room for improvement here.

Here we need to ask ourselves:#

- Why users below age bracket of 50 not using our app?
- Why user of age bracket >50 dropping off at search?

- Based on the funnel analysis Manhattan has most users, which is as per our expectations.
- From the funnel analysis we can see a 40.50% drop in search for Staten Island as compared to the rest of the neighborhood. Others are consistent.
- The drop off rate is high in the beginning in both the age and location segments.
- To further understand this, we need to look into user research and form a new hypothesis to provide a better experience.

Location demographics	
User Neighborhood	
Bronx	10,802
Brooklyn	73,880
Manhattan	257,259
Queens	18,088
Staten Island	7,054

Location demographics drop out rate					
User Neighborhood					
Event Type	Bronx	Brooklyn	Manhat..	Queens	Staten Island
open					
#_of_users	-28.71%	-28.63%	-28.22%	-28.89%	-26.37%
search	-38.35%	-38.61%	-38.89%	-38.30%	-40.50%
begin_ride	-97.82%	-98.14%	-98.11%	-98.26%	-97.96%

QUALITATIVE ANALYSIS


USER RESEARCH

- Based on the analysis in previous slides, we know that our target age group is above 50, hence we need to keep this group in mind when forming hypothesis. Other group will be for future enhancements.
- Even though the survey set is small, it can provide some valuable insights to focus our offerings.
- From the survey data we can conclude that users above 50 are concerned about **convenience** and **beat the traffic**.
- Some user suggested that they elicit the help of someone to use the app. *Do they find the app challenging to use?*
- One user responded that he loves user because it has its addressed saved and thus the ride booking flow is easier. *Can we incorporate such a feature?*
-



NEW HYPOTHESIS

- Based on the analysis done previously, following will be the most viable option to test:
 - **Save my location:** Here users can save their most common location such as Home or Work for ease of use.
 - **Credit Card information:** Save payment information for easier checkout.
 - **Voice commands:** App responding to voice commands could certainly open underserved market as well as Aha factor for existing user base.




I hail a taxi or tell my phone to call a cab to go to a specific address (I'm always on the phone, so I use voice commands with my phone most of the time)

I have a personal car service on call. My assistant books the app whenever I'd be travelling during peak NYC traffic hours. Time is money, and Flying a taxi saves me time! But I let my assistant book the app.

I call up our local pilot, Bob. He's not always available, but I don't need to fiddle around with an app and hit tiny buttons. He knows where I tend to be and where I want to go.

Honestly, I thought about using the app to surprise my grandson or granddaughter with a visit to one of their sporting games. Luckily my daughter was around to help me book the ride. I usually use Uber because



PLAN NEXT EXPERIMENT

SUGGESTED HYPOTHESIS AND IMPLEMENTATION PLAN

We believe that for users above 50, since they value convenience and time, hence having the option to save location or ride and payment information will result in significant reduction of drop opts.

Control	Ex 1
Normal page	Booking page with favorite option and card pre-selected
	Ex 2
	Booking page without favorite option but card pre-selected
	Ex 3
	Booking page with favorite option but no card pre-selected

- Users above age group 50 should be exposed to the experiments.
- Following metrics could help us better our analysis:
 - No. of users selecting favorite ride option
 - No. of users selecting pre-saved card option