PRODUCT ANALYSIS AND KPI METRICS OF A FOOD DELIVERY APP

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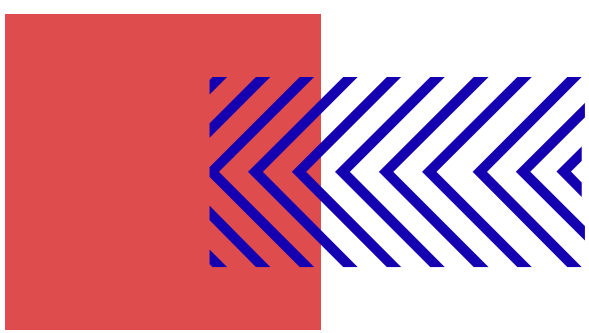
ABOUT

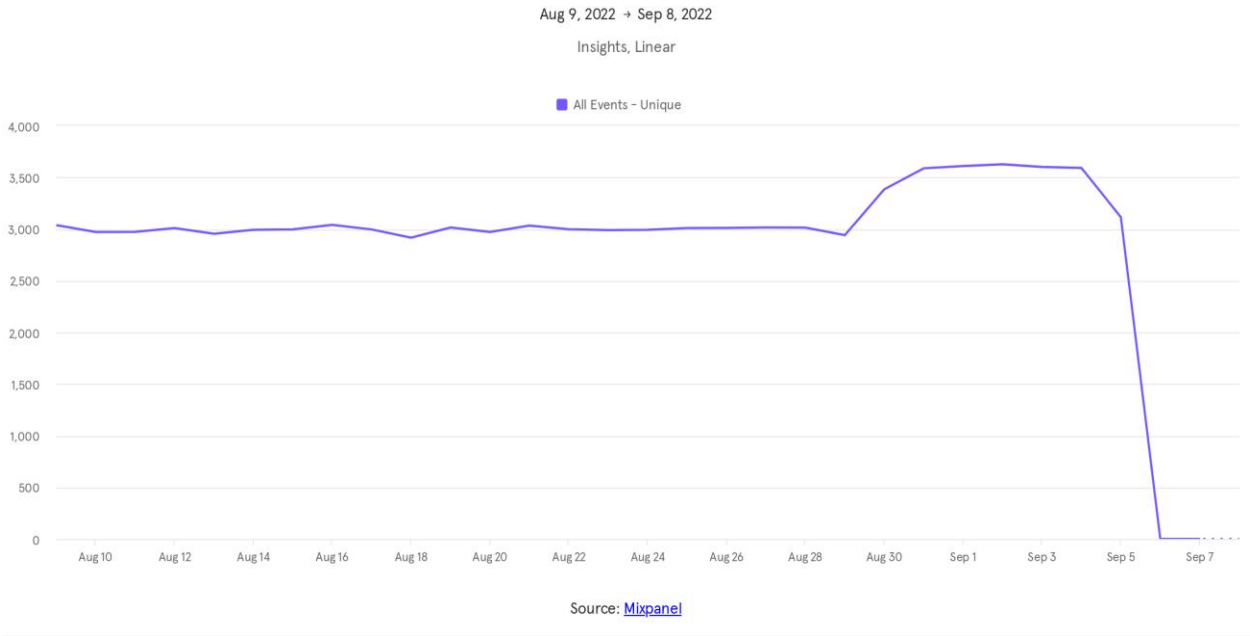
- A FICTIONAL COMPANY WHO HAS FOOD DELIVERY APP WHERE YOU CAN SET OUT YOUR MEAL PREFERENCES AND CAN GET A RANDOM SANDWICH WITHIN 15 MIN.
- IT IS A START-UP WITH 15 EMPLOYEES AND HAS ESTABLISHED OVER 1 YEAR.
- THE STATEMENT IS TO DETERMINE WHICH FEATURE TO INVEST IN WITHOUT HAMPERING QUALITY OF SERVICE.
- DATA : HTTPS://GIST.GITHUB.COM/AK47/9970AB52EE55723F05999BIEFIA0BC73
- THIS IS A JAVA-SCRIPT CODE CONTAINING KEYS AND VALUES (ATTRIBUTES) EACH OCCURRENCE HAS ITS OWN COMPLETE SET OF INFORMATION THAT IS INDEPENDENT OF OCCURRENCE THAT HAS COME BEFORE OR AFTER.
- THE ANALYSIS IS DONE USING MIX-PANEL.

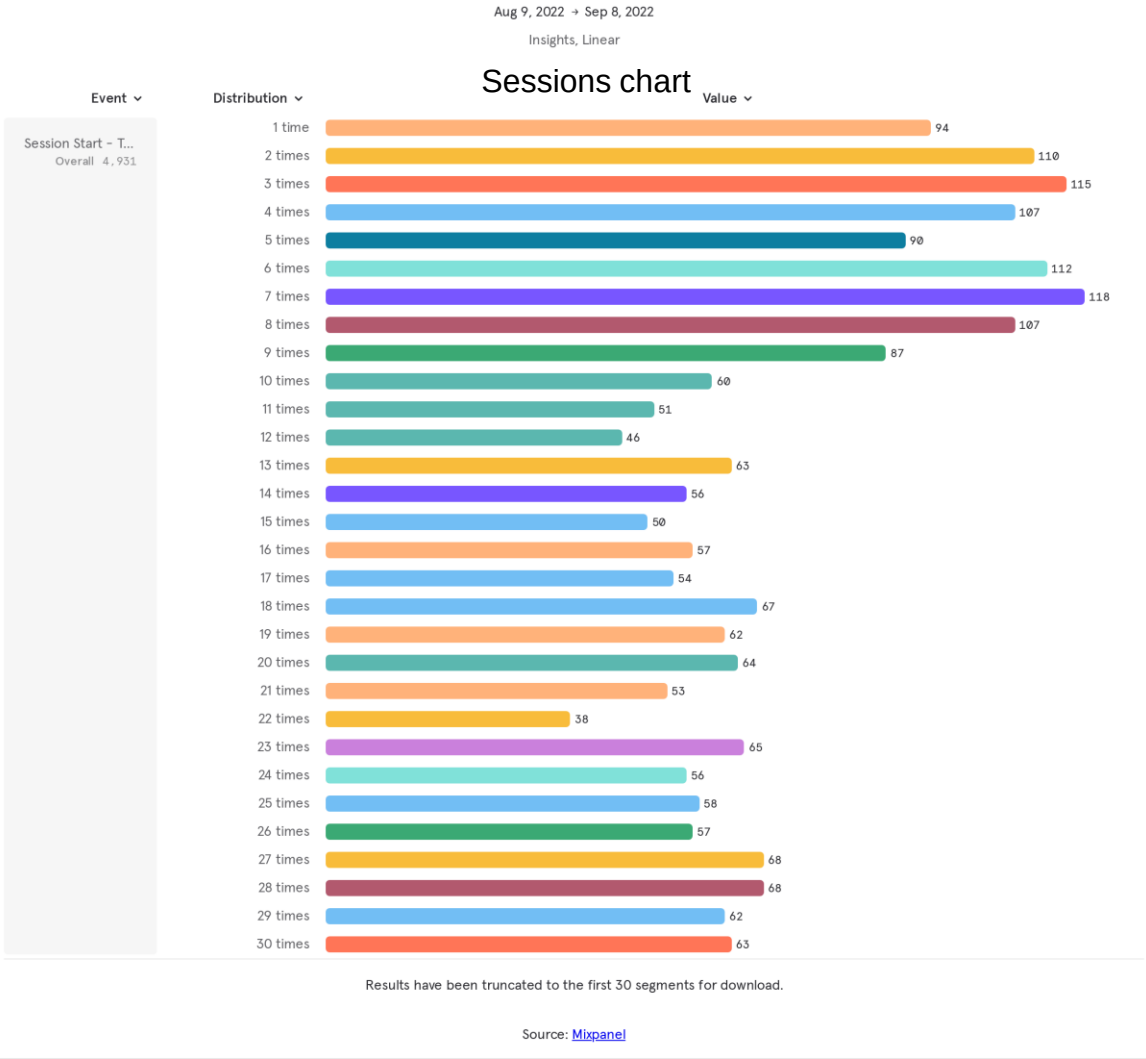


BEHAVIORAL METRICS

- Here we use behavioural data which is object data and event data joined together.
- Behavioral metrics are critical to product analytics; when we want to understand the “health” of our business, we need to examine end-user behaviors
- Here we will look at different metrics like DAU, number of sessions, user segmentation.

- DAU (Daily active users)
- Daily active users: A user is active on a particular day when he has done anything on that day. Here we will look at how many people did at least one event (we will view it as time series)



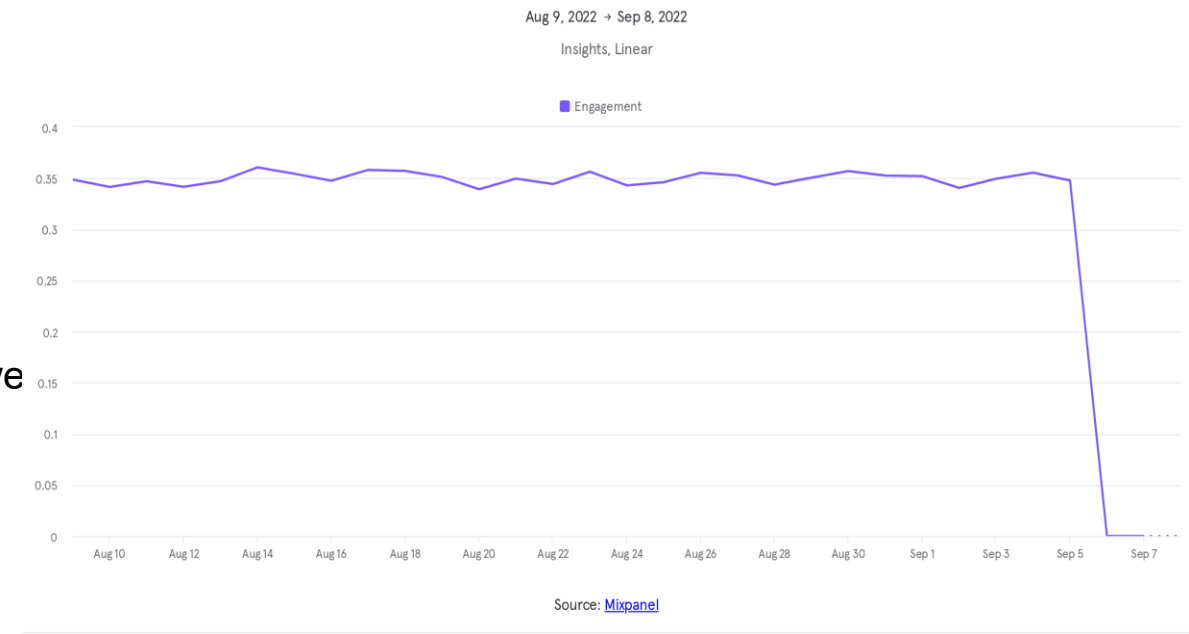


Session

- Each bar represents no. of users who did atleast one session in past month

Engagement metrics

- Here we will look only at the meaningful activities that the user has done. These events include ordering sandwich, setting meal preference, setting favourite sandwich, adjusting payment methods…and maybe more but we will look at all these events only.
- Here we look at what % of people having our app is engaging in our app.

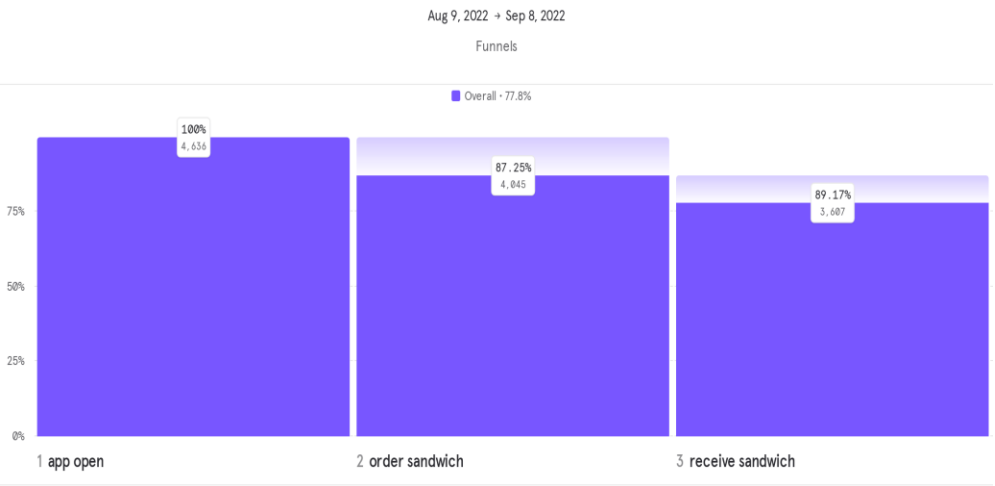


ACQUISITION METRICS

- Here we look at our marketing channels, those which lead to the largest number of sandwiches purchased and orders abandoned on both of our platforms.
- We need to look at first time purchases and repeat purchases.
- We will study the actions in series, where one action is performed after another action and we study the conversion rate of those all.
- In our case we will look at steps:

- We are interested in users who have completed the journey and users who haven’t. Each step contains less users than the step before that this is what we call **funnel analysis**.

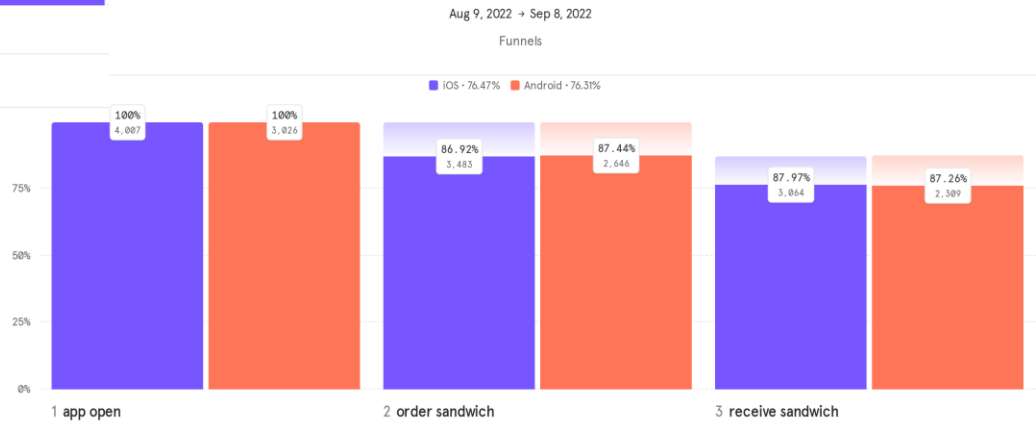
FUNNEL ANALYSIS



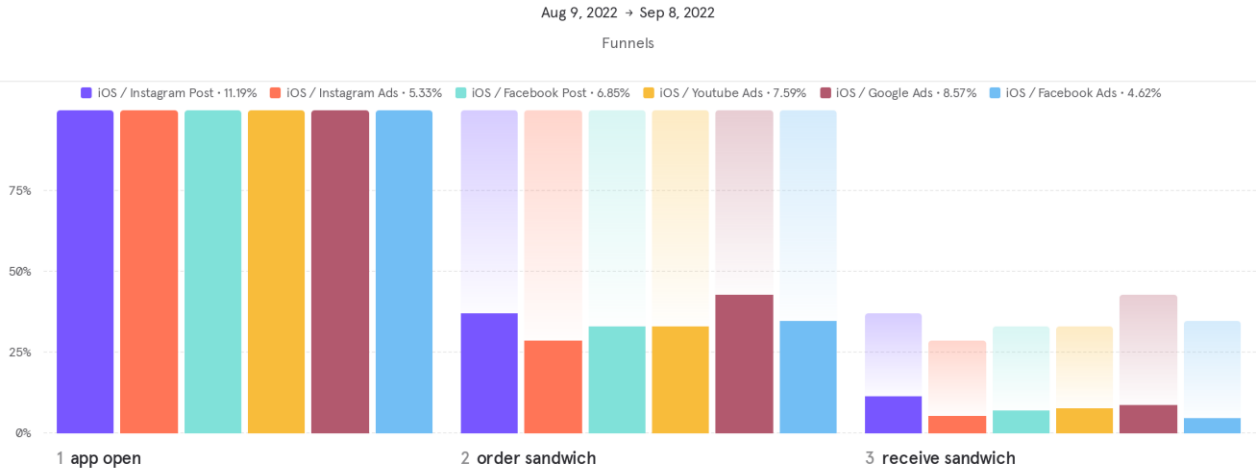
Source: Mixpanel

About 77% of people who completed step 1 also completed step 3.

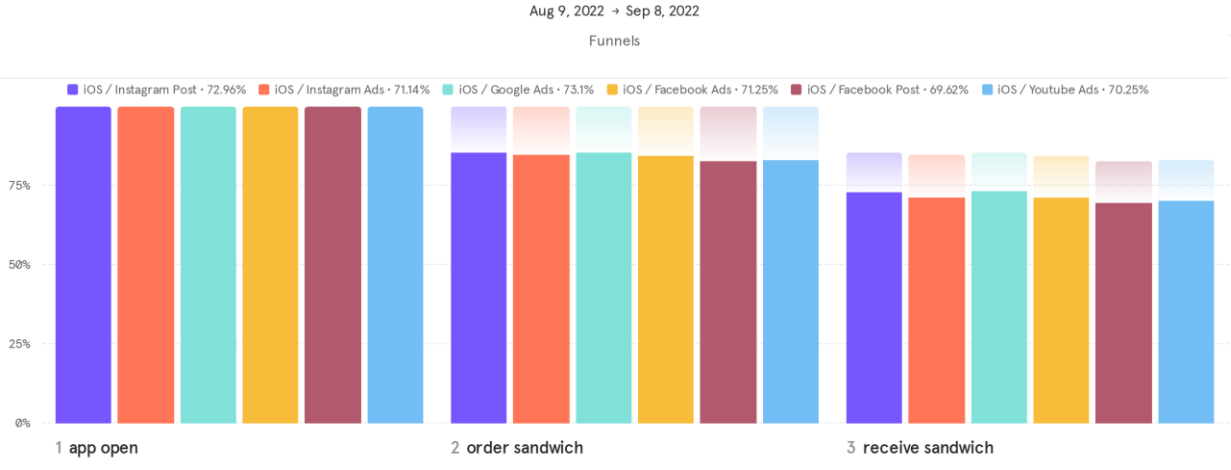
There are 1000 more people who receive sandwich after opening the app in IOS than android.



Source: Mixpanel



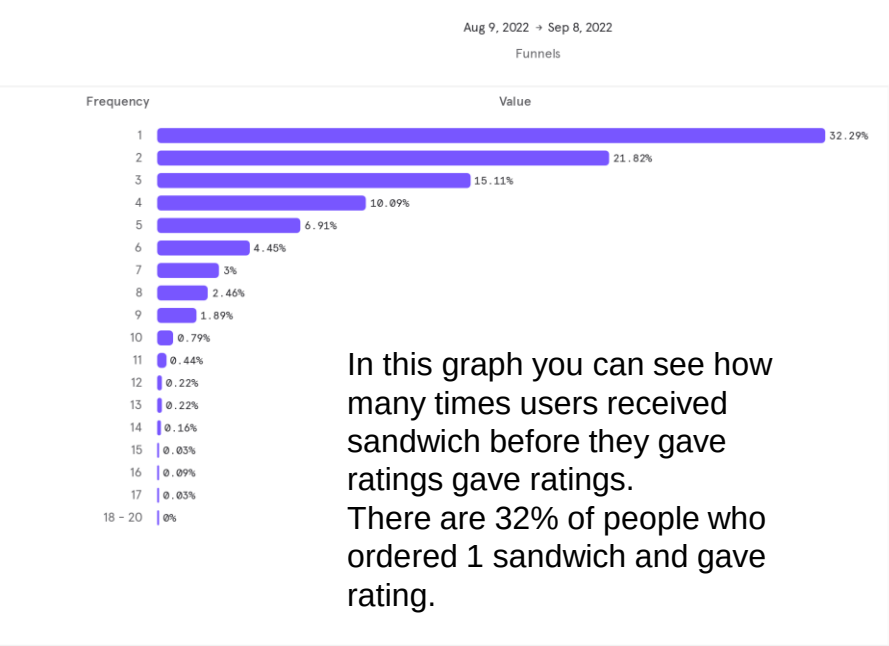
This chart represents the number of people who have completed all 3 steps via app IOS platform where they have opened the app for the first time, and their distribution according to different marketing channels.



This chart represents the number of people who have completed all 3 steps via app IOS platform having made repeated purchases, and their distribution according to different marketing channels.

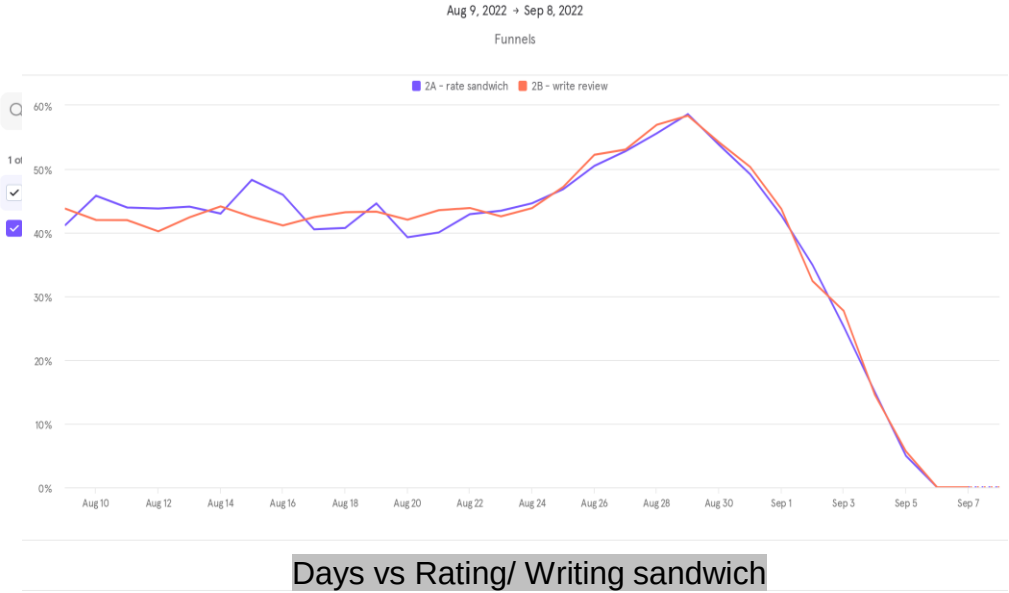
Source: Mixpanel

SPOTTING TRENDS:



In this graph you can see how many times users received sandwich before they gave ratings gave ratings.
There are 32% of people who ordered 1 sandwich and gave rating.

Source: Mixpanel



Days vs Rating/ Writing sandwich

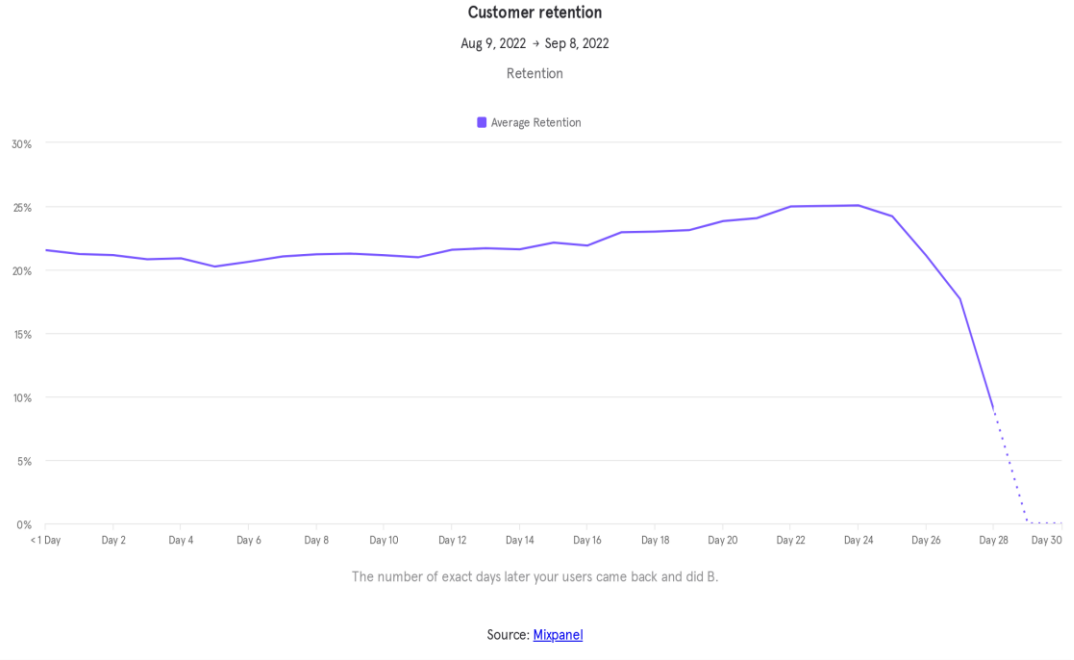
RETENTION METRICS

WHAT SHOULD BE RETENTION STRATEGY ?

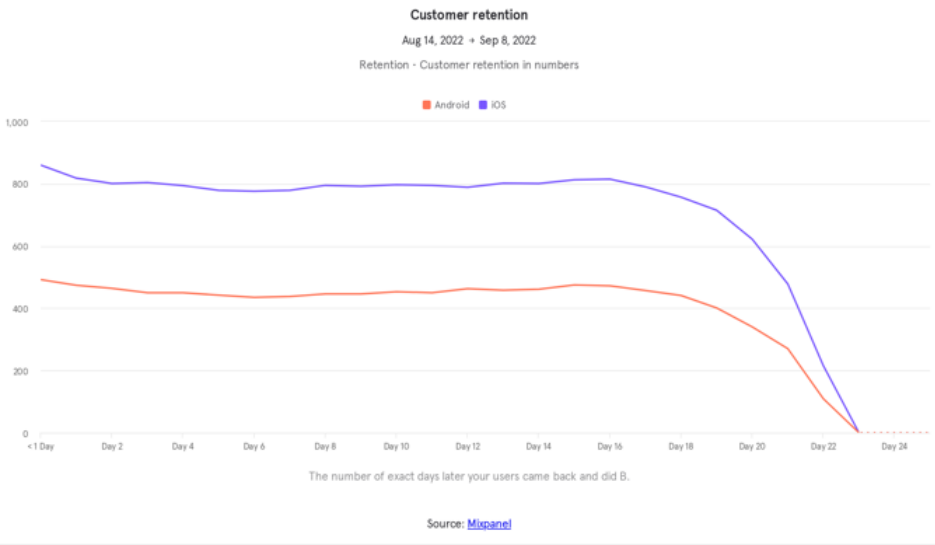
- We need to measure and look at each stage of our customers journey, for example when our customer is onboard and set up their dietary preferences, we should figure out how that affects their purchasing journey.

- At a high level, companies with strong customer retention tend towards profitability in the long-run, but that’s a lagging indicator. Profitability and growth prove that the business model is viable, but they don’t tell you what worked really well. They just tell you that something worked.

The customer retention is based on the statement that how may customers opened the app and did some meaningful activity.
This meaningful activity includes:
1. Ordering sandwich which cost more than $5
2. Rating the sandwich (rating should be more than 3 stars)
3. Adding sandwich to favourites
4. Writing reviews



The average retention is 20 % at any given day of the week. But the retention increases after day 21-22



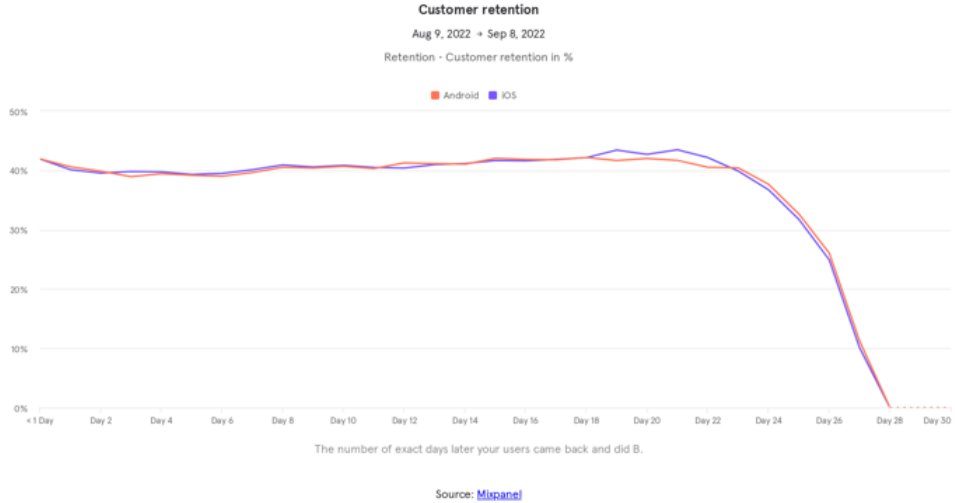
The total no. of users using ios is greater than that of android

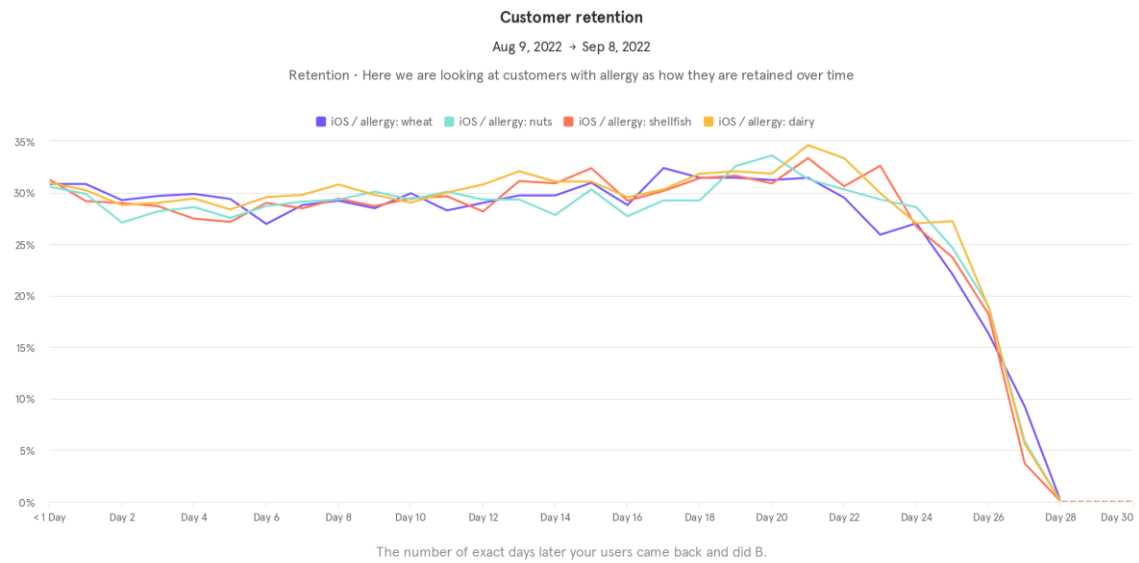
Around day 8, 41.64% users are retained on ios which is around 790 users.

And after day 12 android users overtake ios (in terms of %) with 42.48% which is 462 users. Still no. of users are still less than that of ios

Andriod users have better long time retention

IOS users have a better long time retention

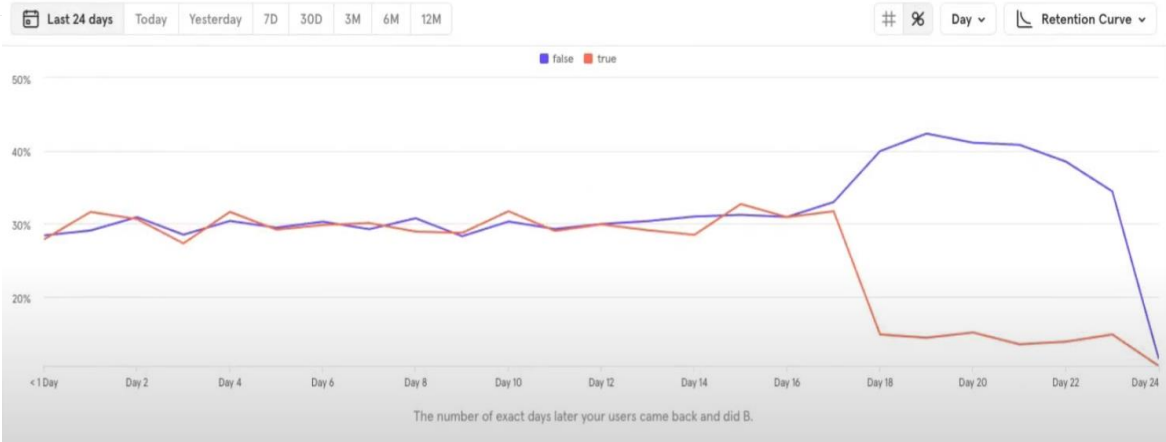




Source: Mixpanel

- Customers with food allergies are retained more than 30% of the time by around day 25.
- The spikes in the graph tells that there is around 2-3 days gap before they return on our app.

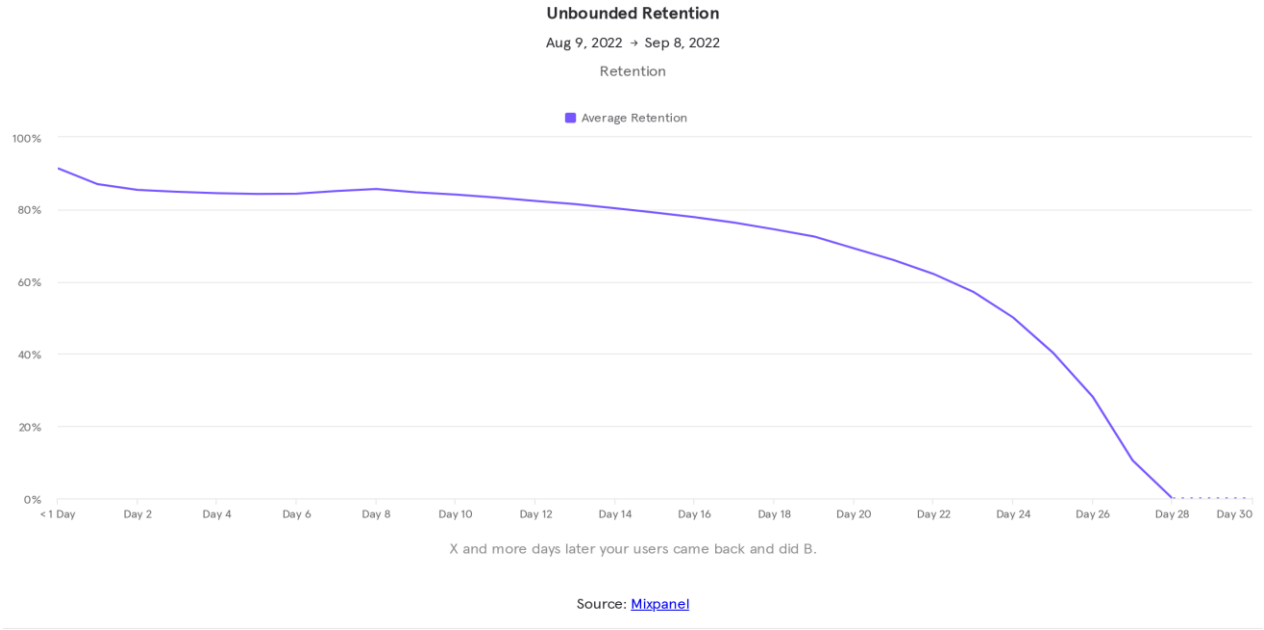
Down below is graph of Customer retention with respect to if they have allergies or not



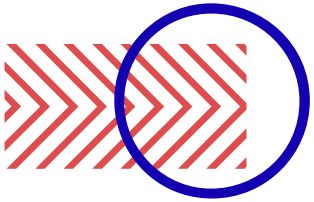
- True: customer has allergy, False: customer doesn't have any allergy
- Here we can see that customer with allergies have been not retained as good as customer without allergies.
- So, we need to address this problem properly.

UNBOUNDED RETENTION CURVE

- We used N day retention to see the activities within user lifecycles
- To look at churns abandonment or longer term retention trends we need to use unbounded retention.

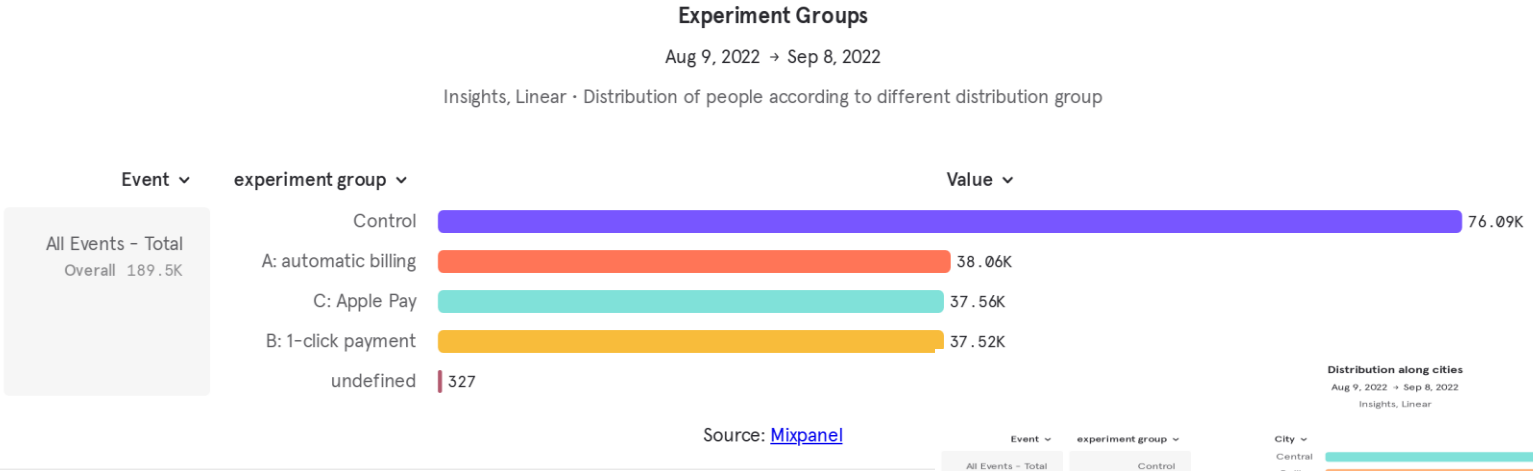


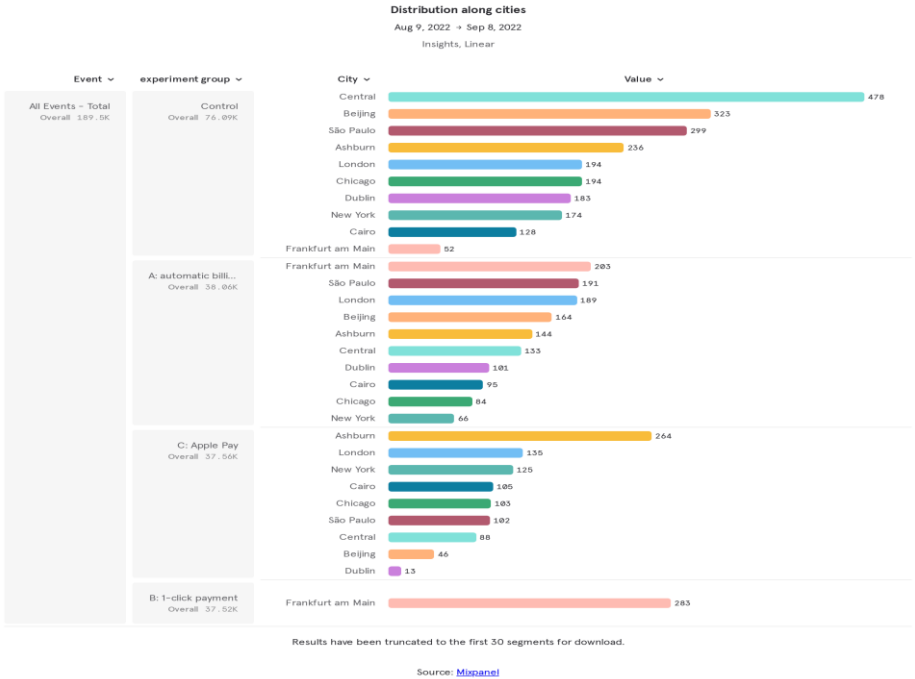
EXPERIMENTATION:



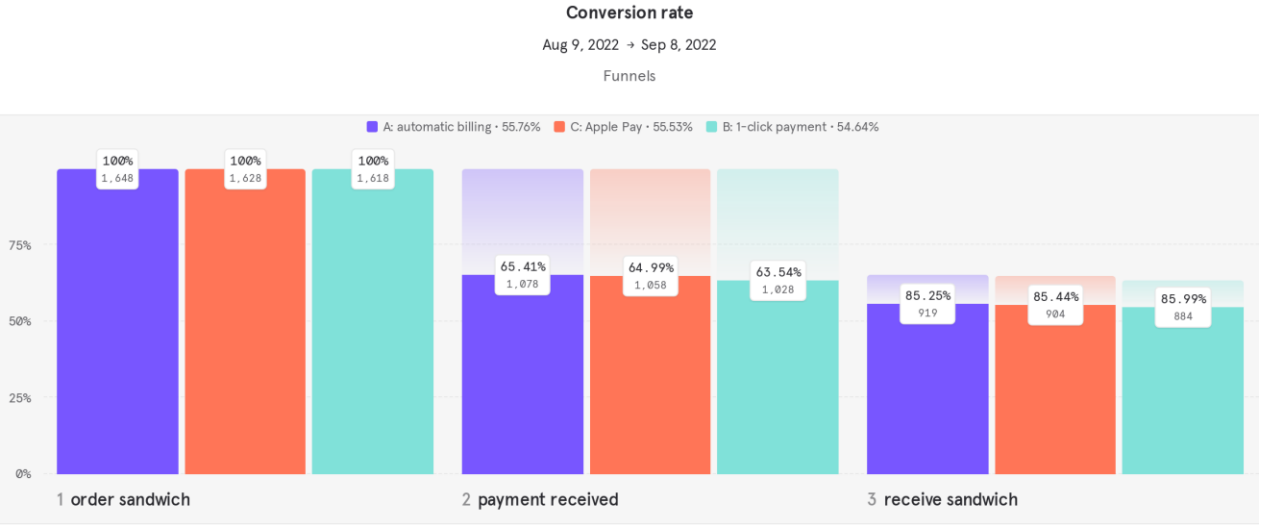
HYPOTHESIS:

- After close analysis we found that we must deal with 2 things: End users food allergies and Payment/Checkout flows.
- The user must never get a sandwich he cant eat: we can rework on the “View sandwich ingredients” modal in the app and following the retention metrics.
- Optimize how users pay for the sandwiches that they order: we must find the right UX to make in-app payments as smooth and quick as possible.
- We have 3 designs: 1 click payment experience, an automatic billing experience, An apple pay experience.
- In our data set all the users are part of different experiment groups.





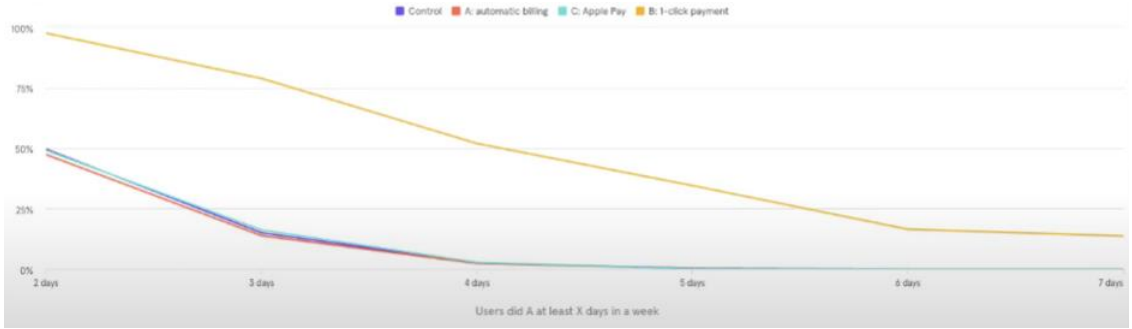
- **Dependent variables**: The metrics which would be influenced by our experiment. Key things about our hypothesis.
- **Independent Variables**: Attributes that has nothing to do with our testing. They are used to ensure that the data variance of experiment is well distributed and there is no faulty factors that affect our experiment.

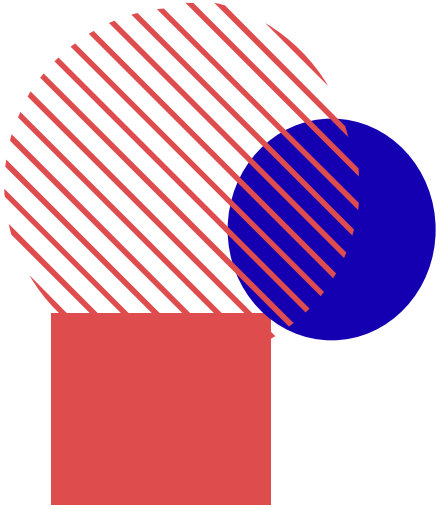


Source: Mixpanel

THE USERS WHO ARE USING AUTOMATIC BILLING IS MORE, BUT THE CONVERSION RATE OF I-CLICK PAYMENT IS ALSO HIGH.

Here we look at which variant, within our payment flow experiment yields the highest frequency of sandwiches ordered on any given week. 1-click payment has yielded more no. of people who checked out.





THANKYOU