



GloBox: A Case Study

A/B Test on launch of a new banner

About the company

- E-commerce company
- 2 segments: boutique fashion items and high-end decor products and food & drinks
- Key stakeholders:
 - Mei Kim, Head of Marketing
 - Leila Al-Farsi, Product Manager, Growth
 - Growth Product & Engineering Team
 - Alejandro Gonzalez, User Experience Designer, Growth



Question asked by the company

- Will introducing a new banner at top of the website with highlighted food & drinks, increase conversion rate and as a result revenue?



Experiment to answer the question asked....

- A/B Testing
- Hypothesis Test includes:
 - Null Hypothesis: conversion rate is not dependent on showing the banner at the top of the website
 - Alternate Hypothesis: The conversion rate is directly dependent on showing the banner on the website
 - Significance Level (α)
- 2 sample groups:
 - Control Group or Group A: existing landing page without banner
 - Treatment Group or Group B: landing page after the launch of the banner
 - $\alpha = 0.05$



Experiment Continued....

- No. of users in Control Group (Group A): 24343
- No. of users in Treatment Group (Group B): 24600
- Conversion Rate of Control & Treatment Groups
- Probability of rejecting or accepting the Null Hypothesis
- Calculating the average amount spent per user of the two groups

RESULT:

$p\text{-value} < \alpha$, Null Hypothesis REJECTED.

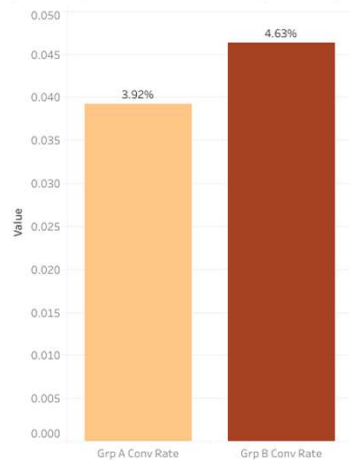
T-value is very small for the average amount spent, implying both groups are similar in this respect



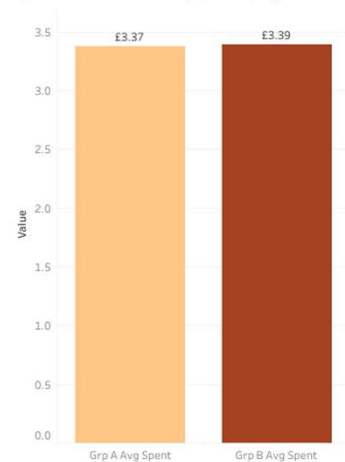
Analysis....

Comparison of Control Group & Treatment Group

Conversion Rate of Control Group (Group A) & Treatment Group (Group B)



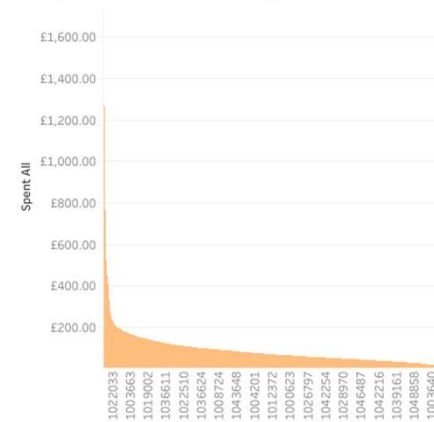
Average Spent of Control Group (Group A) & Treatment Group (Group B)



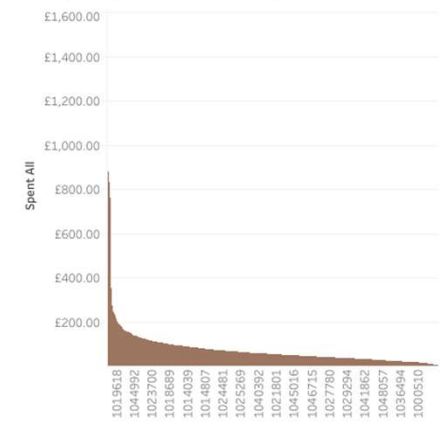
Measure N.
Grp A ...
Grp B ...

Spent Distribution for Control Group & Treatment Group

Group A: Spent Distribution per User



Group B: Spent Distribution pe User



Analysis Continued....

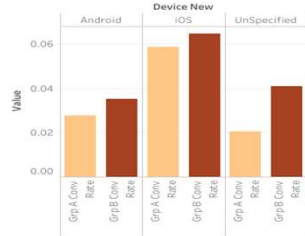
- conversion rate of Treatment Group > Control Group
- average spent of both groups are almost same



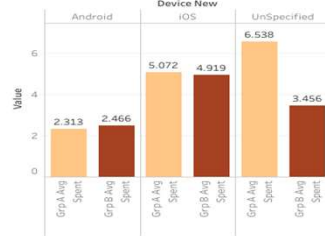
Analysis Continued....

Comparison of Control Group & Treatment Group as per Device

Conversion Rate as per Device



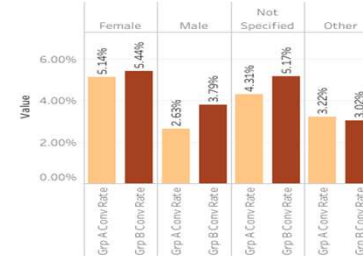
Average amount Spent as per Device



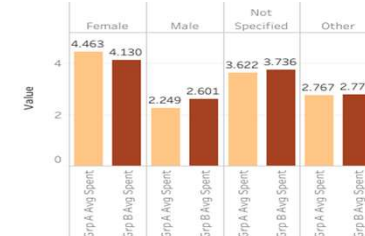
Measure N.
Grp A A...
Grp B A...

Comparison of Control Group & Treatment Group as per Gender

Conversion Rate as per Gender



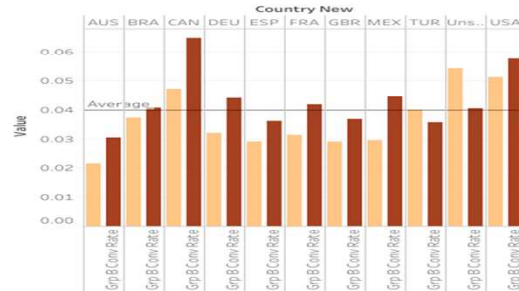
Average Amount Spent as per Gender



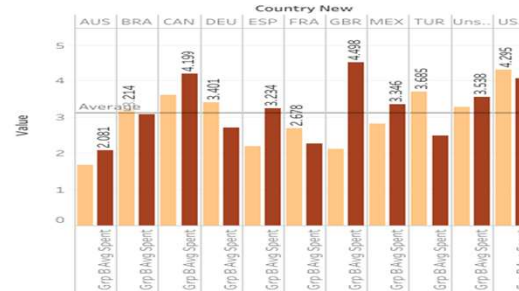
Measure Nam..
Grp A Con..
Grp B Con..

Comparison of Control Group & Treatment Group as per Country

Conversion Rate as per Country



Average Amount Spent as per Country



Measure ..
Grp A ..
Grp B ..



Analysis Continued...

- Unspecified device segment has less conversion rate < iOS, but spent amount is highest
- Female segment conversion rate & spent amount both high
- North American countries have higher conversion rate as compared to others.



Recommendations

- Launch of banner for next 3 months and reconsideration to continue at the end of quarter
- Scope high with Unspecified device segment. More research to be done on them.
- Marketing strategy to attract male, unspecified & others in the gender segment.



Thank You

