Globox Project Presentation

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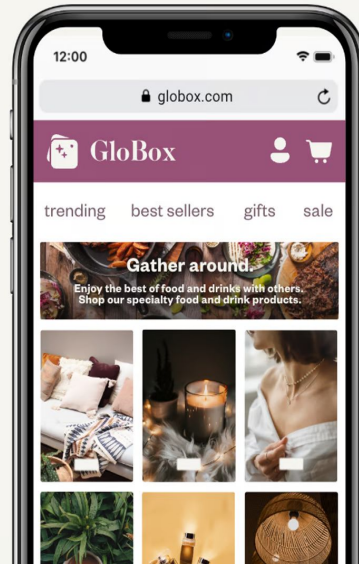
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New Homepage Banner

Group A: Control
existing landing page

Group B: Treatment
landing page with food & drink banner

Experiment's Sample Size:

- Total Users : 48,943

- Control Group : 24,343

- Treatment Group : 24,600

Goal of the Experiment:

- Should we Launch the Banner?

- Do we have enough information to Decide?

- Should we iterate on this experience and test it again?

- **Conversion rate analysis between two test groups:** From Statistical Analysis of Conversion rate for Both Test Group, **p Value is p = 0.0001114119853 which is <0.05, Which means it Rejects Null Hypothesis**, meaning there is a significance difference in conversion rate of both test group.

- **95% confidence interval** for conversion rate between two groups: Difference in conversion rate was found to be between 0.0034% and 0.0106%.


Test group's Count of User Id and count of Connverted users
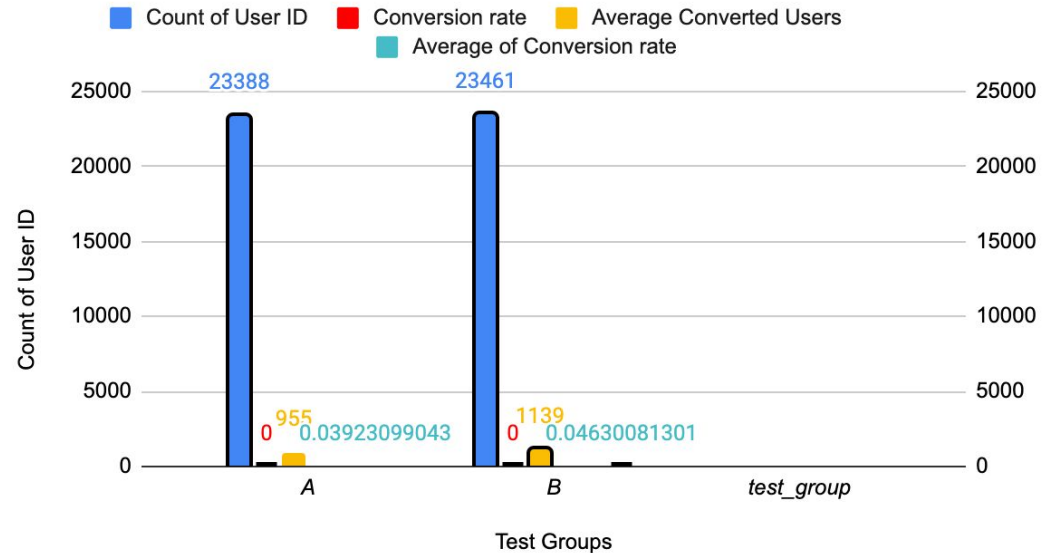
Hypothesis test to see whether there is a difference in the average amount spent per user between the two groups

- Average Amount Spent per user between the two groups: From Statistical Analysis of Average amount spent for Each test group , **P value is 0.9438557529, which is >0.05, that indicated it Fail to Reject Null Hypothesis,** which means there is no significance difference in the average amount spent in both Test Groups.

- 95% confidence interval for the difference in the average amount spent between two groups: Difference in average amount spent was found to be between -0.438 and 0.471.

Average Amount Spent

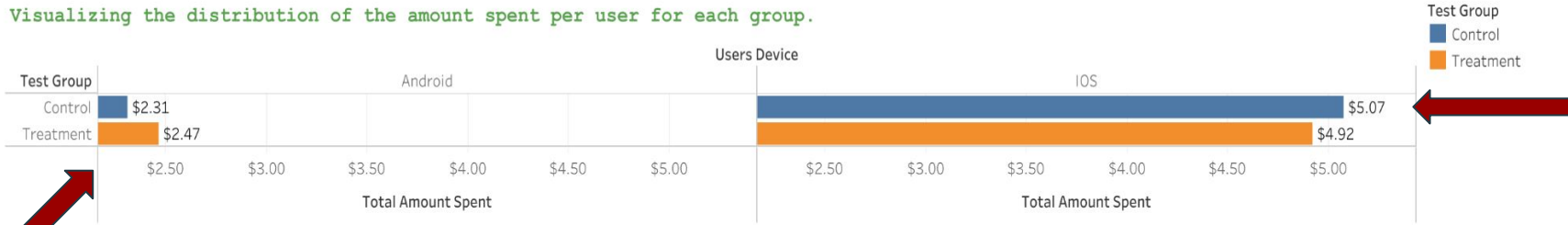|	A	B
	3.374518468	3.390866946
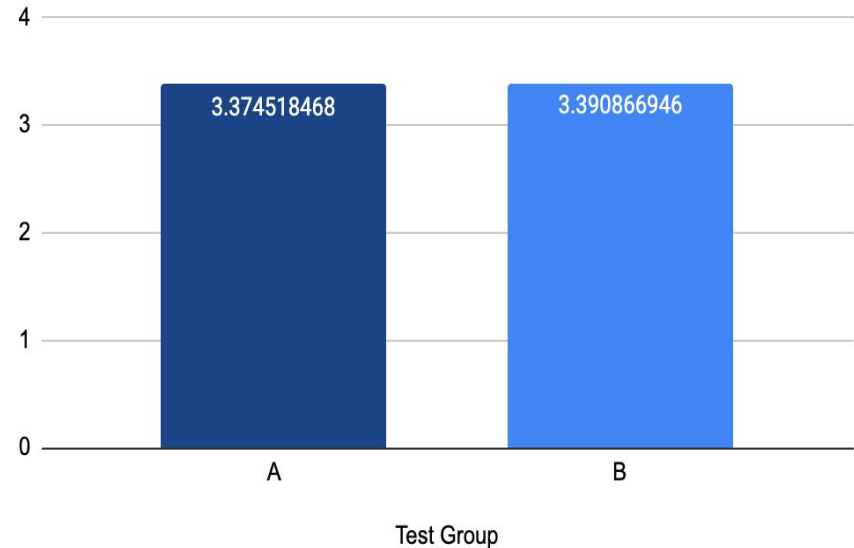
Test Group

visualization to compare the conversion rate and average amount spent between the test groups.
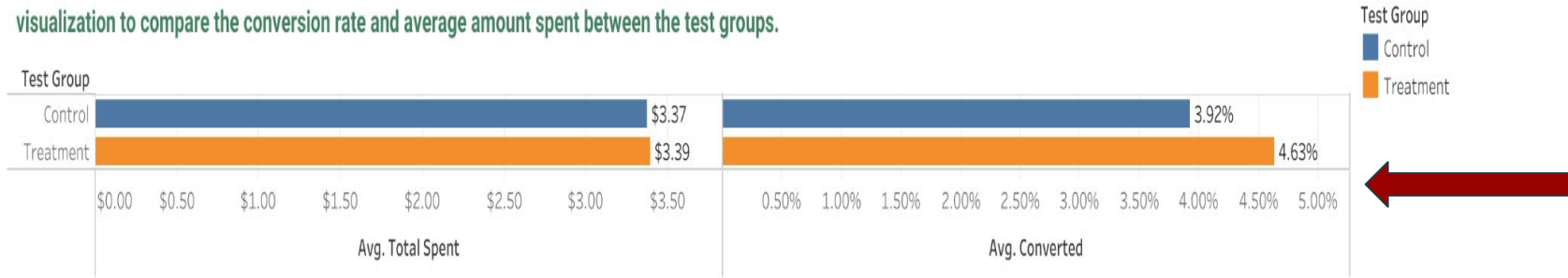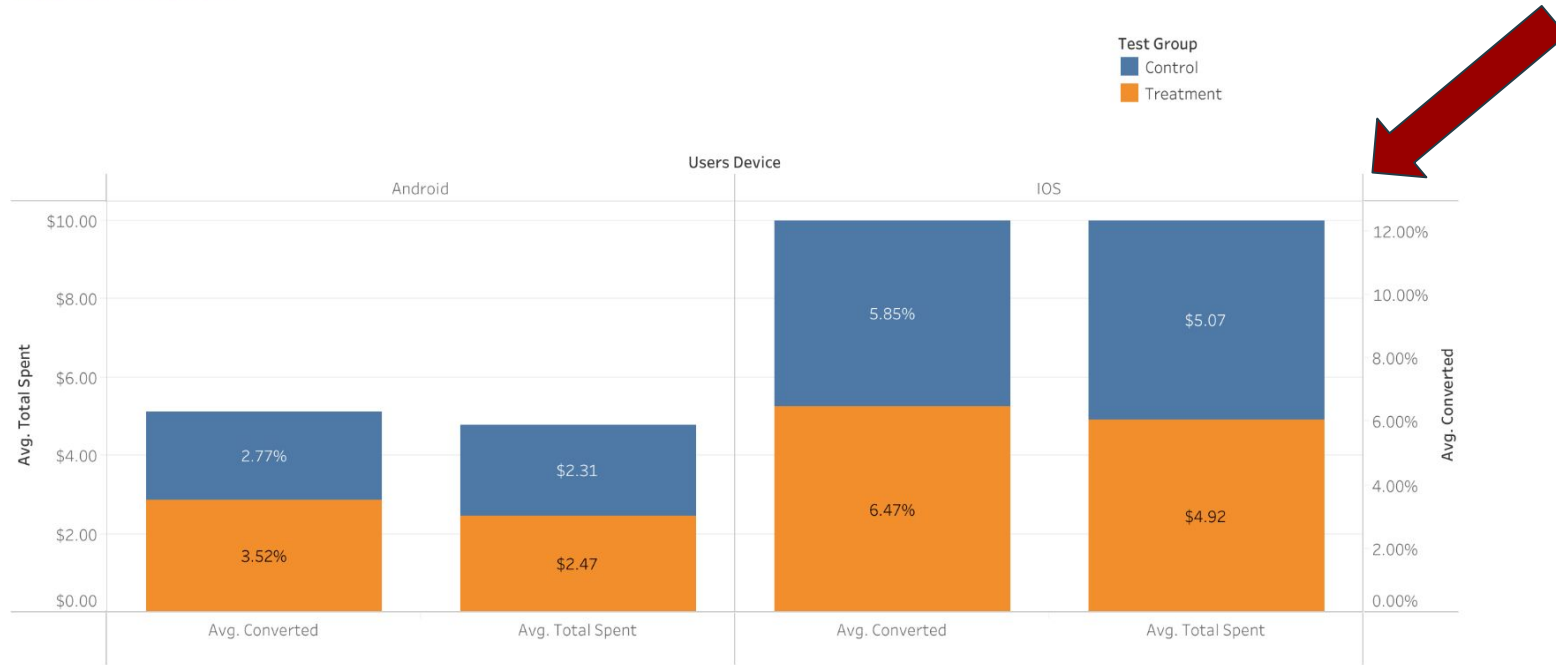
- **Conversion rate:** This visualization shows us that more users are converted in the treatment group with conversion rate 4.63% as compared to the control group with conversion rate 3.92%.
- **Average total spent:** However, not a big difference in Average amount spent was observed between the treatment group with $3.39 average spent and control group with $3.37 average spent.

Visualizing the distribution of the amount spent per user for each group.

- **IOS** : This visualization shows us that IOS device users spent more on an average from control group with average spent of $5.07 as compared to treatment group with average spent of $4.92.
- **Android:** In contrast to IOS, Android device users spent more on an average from Treatment group with average spent of $2.47 as compared to control group with average spent of $2.31.

visualizations to explore the relationship between the test metrics (conversion rate and average amount spent) and the user's *device*.

- This visualization shows us that IOS device users have higher conversion rate and average amount spent for both the test groups as compared to Android device users.

visualizations to explore the relationship between the
test metrics (conversion rate and average amount spent)
and the user's *gender*.
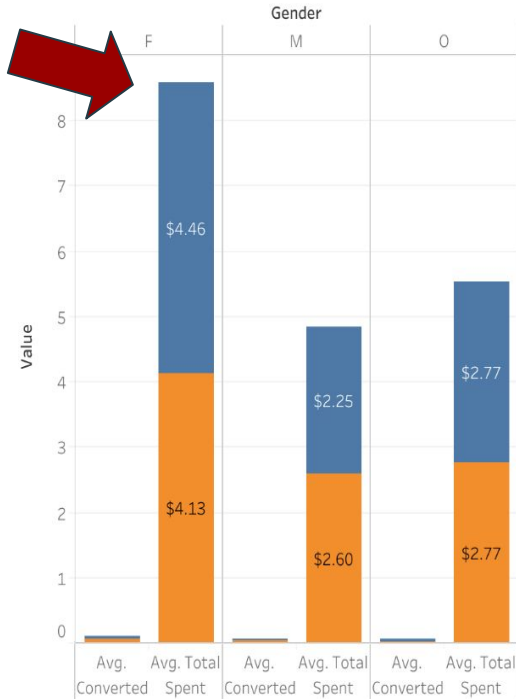
- This visualization shows us that Females have higher average amount spent as compared to all other gender across both the test groups. Control group : $4.46 and Treatment group : $4.13.

visualizations to explore the relationship between the test metrics (conversion rate and average amount spent) and the user's country.

- This visualization shows us that USA has higher conversion rate as well as average amount spent as compared to other countries in both test groups.

Recommendation:

From above Graphical Visualization it is very clear that there is a significant increase in Conversion rate in the treatment group that see's banner on their device. However, no significant increase was observed in the average amount spent between both the test groups.

Since we did see a significant increase in Conversion rate but do not have enough evidence to prove the increase in average amount spent between the two groups. At this point, instead of coming to a decision of launching the new banner or not , I recommend iterating the experiment with a larger sample size or for an extended period of time to get to a decision of Launching the banner or not.