

GLOBOX A/B TESTING

DESCRIPTION

Analyzed A/B Tests to determine if the inclusion of a 'food and drinks' banner on the Globox e-commerce website will increase revenue. Implemented statistical hypothesis testing using conversion rates and average amount spent per user as point estimates and provided actionable recommendations.

SUMMARY

This is an A/B Test experiment to determine the effect that the inclusion of a 'food and drinks' banner on the Globox website will have on revenue. Control and treatment groups were tested for 12 days. The final recommendation is to launch the banner because the experiment showed a statistically significant difference in the proportion of users that converted between the control and treatment groups. Furthermore, this recommendation also considers the fact that the change (setting up a banner on a website) carries minimum financial risk since the cost of designing a banner is a lightweight expenditure and does not outweigh the benefit of a possible increase in conversion rate and dollars spent by users on the website.

CONTEXT

GloBox is primarily known amongst its customer base for its boutique fashion items and high-end decor products. However, the company wants to beam awareness on its food and drink product category to increase revenue.

The Growth team has chosen to do an A/B test experiment that highlights key products in the food and drink category by setting up a banner at the top of the website. While the control group does not see the banner, the treatment group sees it as shown in the image below.

Group A: Control
existing landing page



Group B: Treatment
landing page with food & drink banner



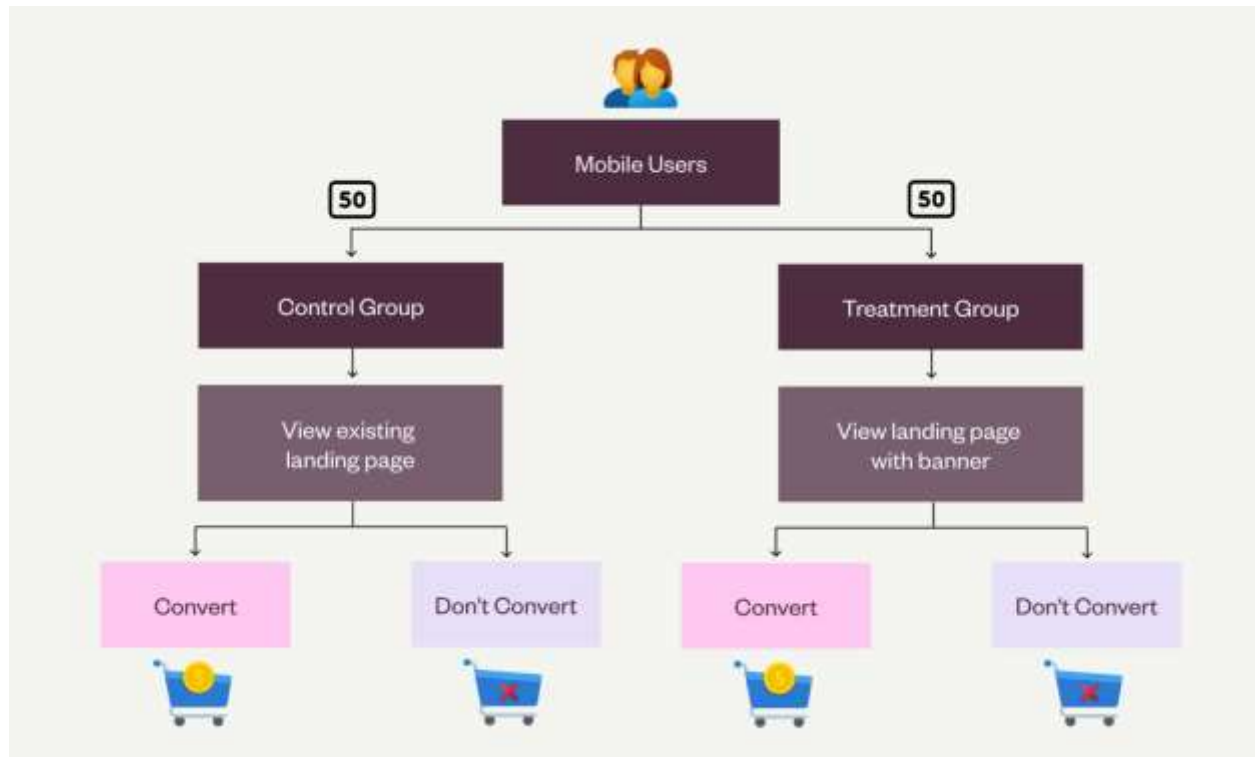
METHODOLOGY

The experiment is only being run on the mobile website.

A user visits the GloBox main page and is randomly assigned to either the control or test group. This is the join date for the user.

The page loads the banner if the user is assigned to the test group but does not load the banner if the user is assigned to the control group.

The user subsequently may or may not purchase products from the website. It could be on the same day they join the experiment, or days later. If they do make one or more purchases, this is considered a "conversion".



ANALYSIS RESULTS

1. Number of users in the control group, A: 24,343
2. Number of users in the treatment group, B: 24600
3. Total number of distinct users in the experiment: 48943
4. Total number users in the Control group, A who converted: 2094.
5. Conversion rate for all users: $(\text{No. 4} / \text{No. 3}) \times 100 = 4.28\%$
6. Number of users in the control group who converted: 955.
7. Number of users in the treatment group who converted: 1139.
8. User conversion rate for control group A: $(\text{No.6}/\text{No.1}) \times 100 = 3.92\%$
9. User conversion rate for treatment group B: $(\text{No.7}/\text{No.2}) \times 100 = 4.63\%$
10. Average amount spent per user for control group A: \$3.375
11. Average amount spent per user for treatment group B: \$3.391