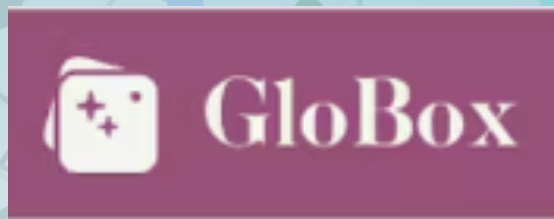


# Can a Banner Create Impact ?

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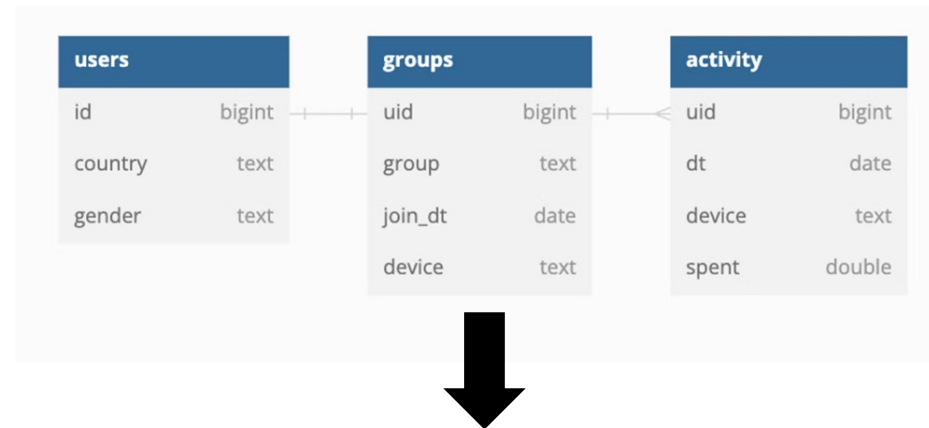


## GLOBOX PROJECT

A Data Analysis Exploration

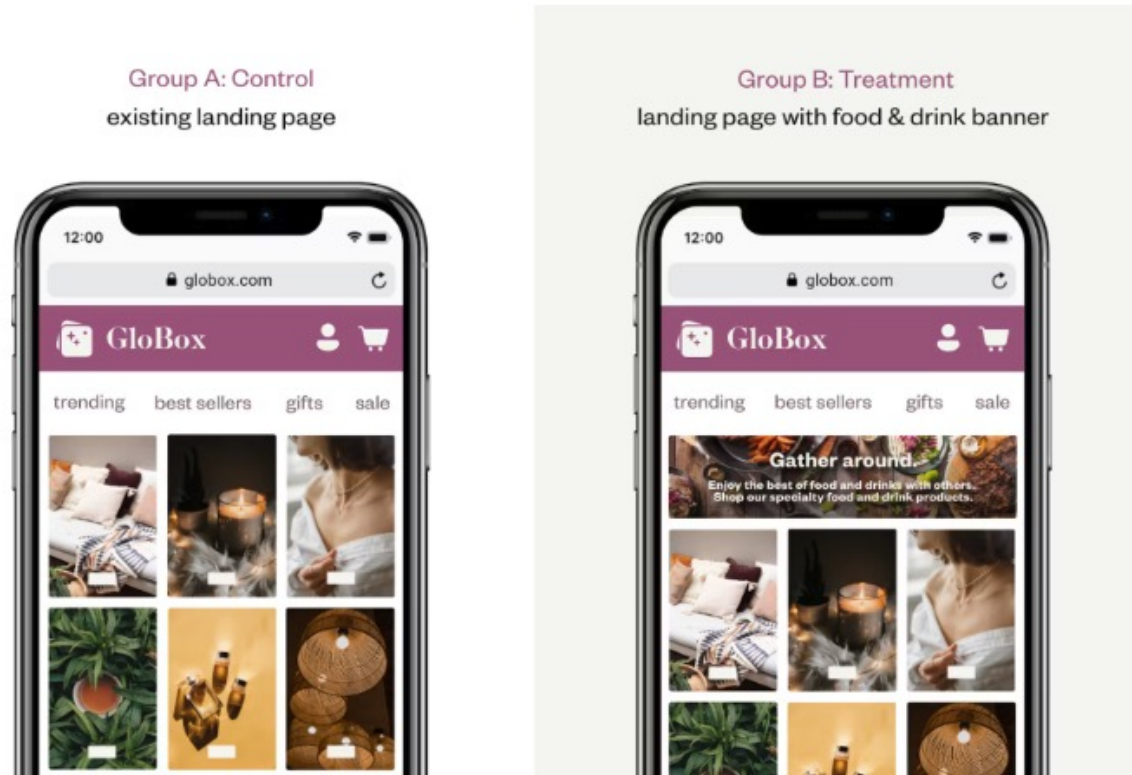
# Globox Data

- The information is divided into three separate tables: a Users table, an Activity table, and a Groups table.
- We attempted to get the table containing **ID, Country, Gender, Device, Date, Group, Transaction\_date, Total\_spent, and Status** by running the SQL code in Beekeeper Studio.



	123 id	ABC Country	ABC Gender	ABC Device	ABC Date	ABC group	ABC Transaction_date	123 Total_spent	123 Status
1	1,000,000	Canada	M	IOS	2023-01-28	B	N/A	0	0
2	1,000,001	Brazil	M	Android	2023-01-27	A	N/A	0	0
3	1,000,002	France	M	Android	2023-02-01	A	N/A	0	0
4	1,000,003	Brazil	M	IOS	2023-01-25	B	N/A	0	0
5	1,000,004	Germany	F	Android	2023-02-04	A	N/A	0	0
6	1,000,005	United Kingdom	F	Android	2023-01-26	B	N/A	0	0
7	1,000,006	Spain	M	Android	2023-01-31	B	N/A	0	0

# A/B Hypothesis Test



We conducted two separate tests for the metrics:

- Z-Score Test for Conversion rates
- T-Score test for Average amount spent

# Insights from Analysis

## Z-Score test for Conversion rates

$P = 0.00011 < \alpha = 0.05$ , Statistically significant

Thus, there is a difference in the user conversion rate between the control and treatment group.

**REJECT THE NULL HYPOTHESIS ( $H_0$ )**

## T-Score test for Average Amount spent

$P = 0.944 > \alpha = 0.05$ , Statistically Insignificant

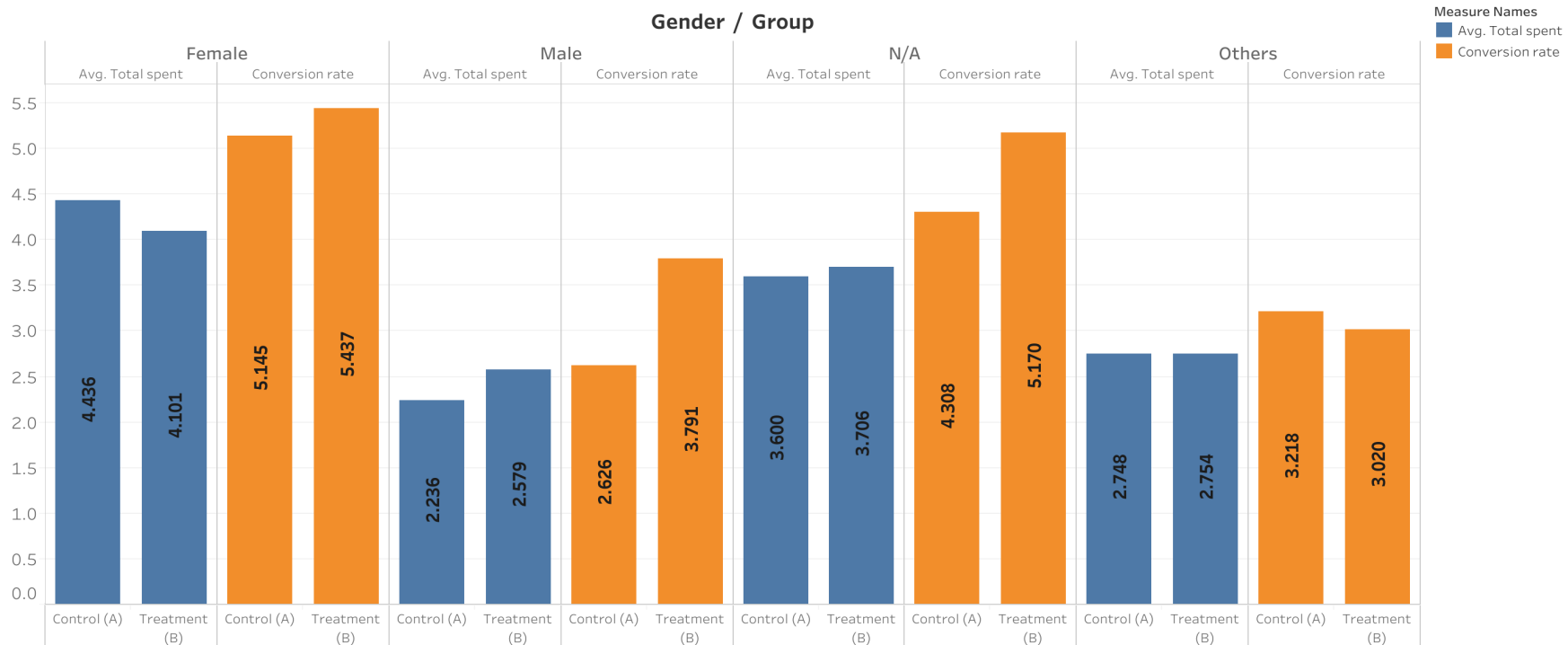
Thus, there is no difference in the Average amount spent between the control and treatment group.

**FAIL TO REJECT THE NULL HYPOTHESIS ( $H_0$ )**

# Tableau Visualizations

With regard to Gender, Device, and Country, we conducted a GloBox data analysis in Tableau.

## a) Gender-based Analysis of conversion rates and average amount spent



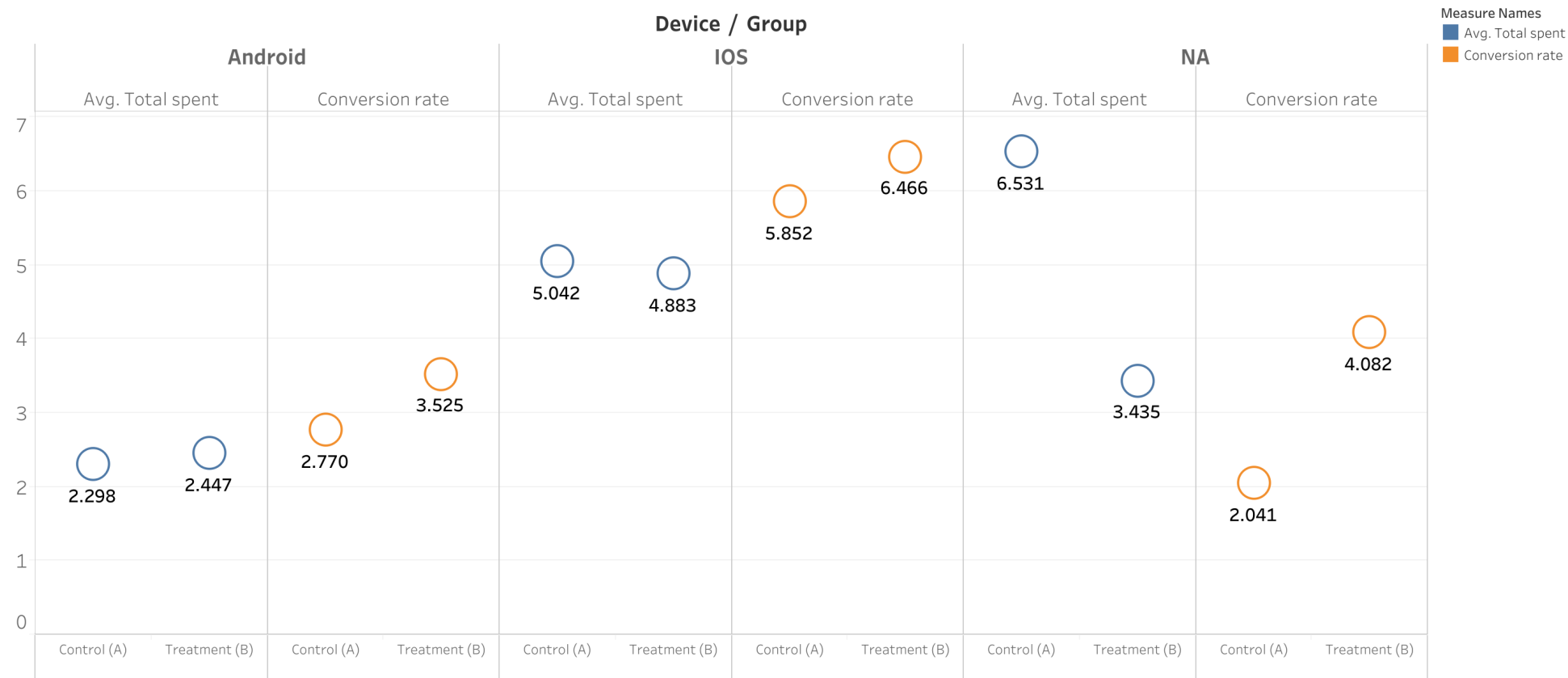
Highest Conversion rate: **Treatment (B), Female: 5.437**

Lowest Conversion rate: **Control (A), Male: 2.626**

Highest Average amount spent: **Control (A), Female: \$4.436**

Lowest Average amount spent: **Control (A), Male: \$2.236**

b) Device-based Analysis of conversion rates and average amount spent



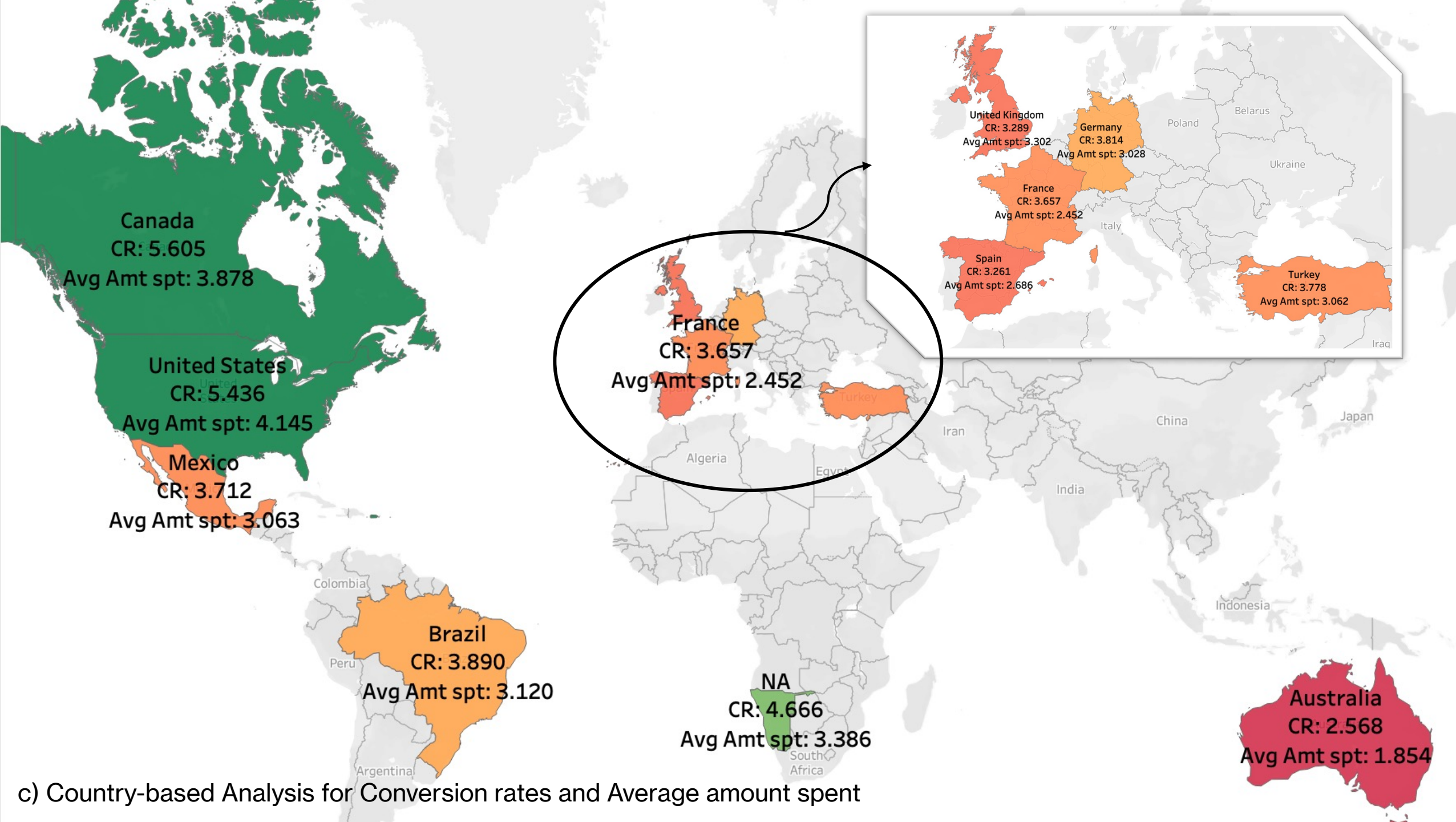
Highest Conversion rate: **Treatment (B), IOS: 6.466**

Lowest Conversion rate: **Control (A), N/A: 2.041**

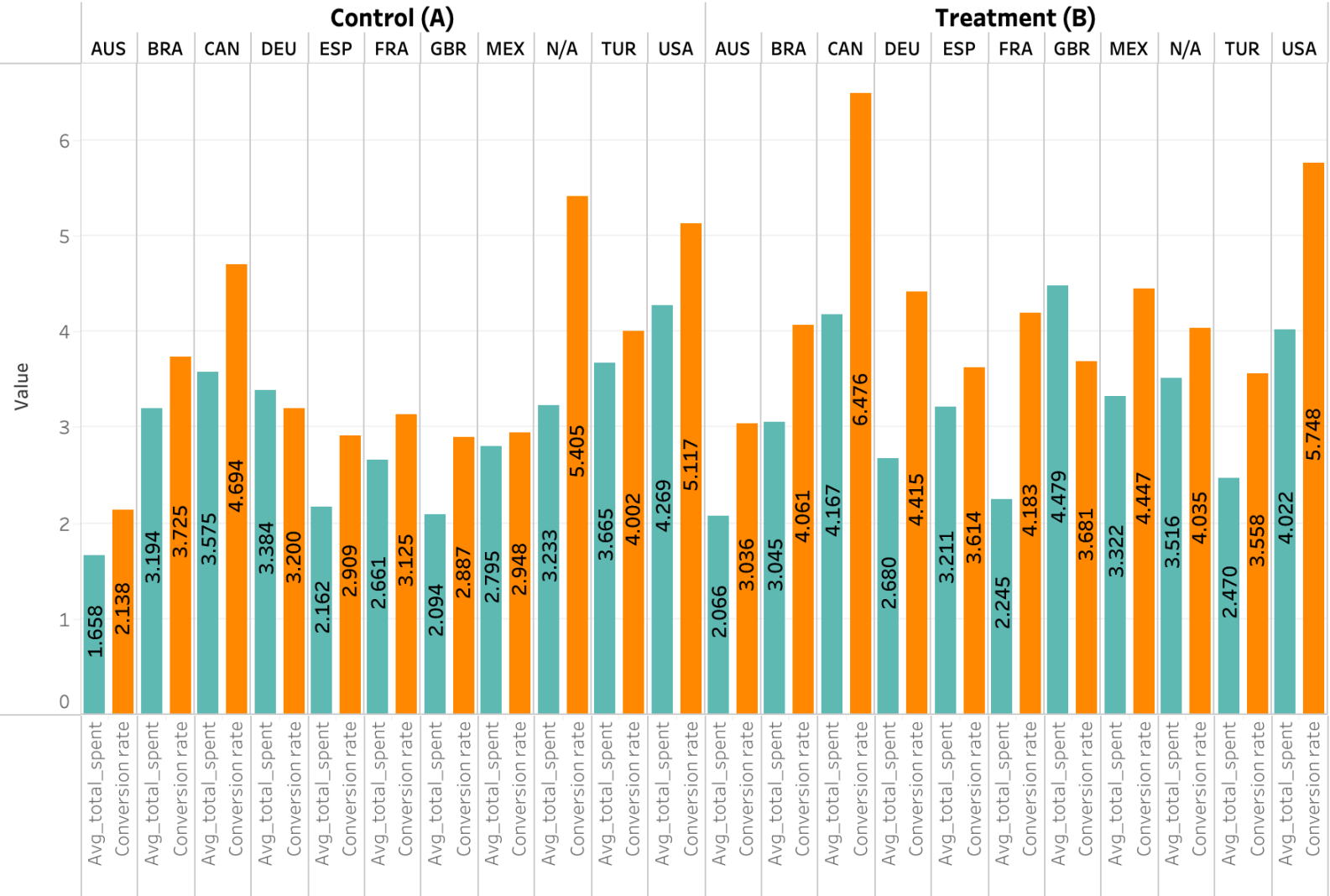
Highest Average amount spent: **Control (A), N/A: \$6.531**

Lowest Average amount spent: **Control (A), Android: \$2.298**





c) Country-based Analysis for Conversion rates and Average amount spent



Highest Conversion rate: **Treatment (B), Canada: 6.476**

Lowest Conversion rate: **Control (A), Australia: 2.138**

Highest Average amount spent: **Treatment (B), United Kingdom: \$4.479**

Lowest Average amount spent: **Control (A), Australia: \$1.658**



# Recommendations

It is recommended to launch the Banner on GloBox Platform.

- Conversion rates – According to Z-score test It is statistically significant, banner is successfully motivating people to sign up or purchase in the platform.
- Average amount spent – According to T-score test it is statistically insignificant, **Additional research** may be needed to completely understand the experiment's effect.
- Further Monitoring and Iteration – Deploying the banner with **post-launch Analysis** and **continuous user behavior monitoring**, Any trends or patterns that develop over time may be identified.



**Thank You!**  
**For Your Attention.**

