

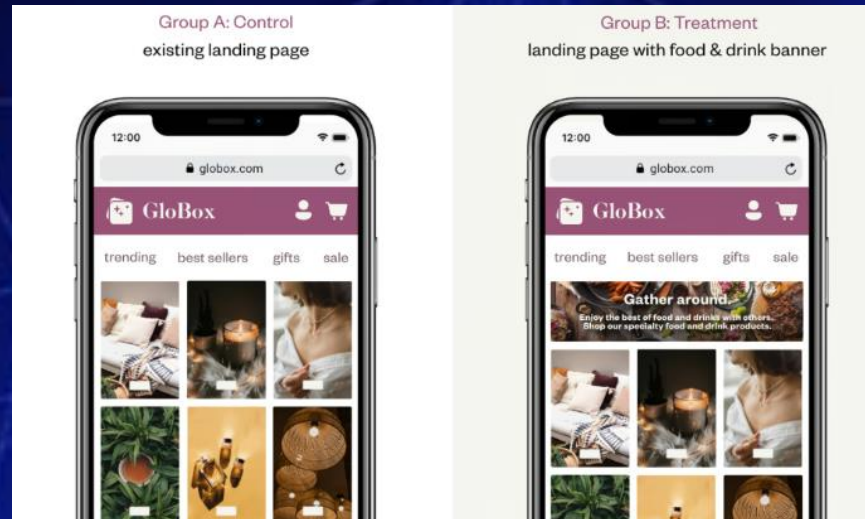
# A/B Testing & Analysis

Globox

Test Date: Jan 25<sup>th</sup> 2023 - Feb 6<sup>th</sup> 2023

# Objective of the A/B Testing

- Evaluate the impact of implementing a Feature Banner at the top of the GloBox landing page.



# Hypothesis Test1

Metric evaluated – Conversion rate

- Null Hypothesis ( $H_0$ ): There is No requirement to improve the existing homepage.
- Alternative Hypothesis ( $H_a$ ): There is requirement to improve the existing homepage with food and drinks bar.

# Statistical Results:

Conversion Rate - Group A:	<b>3.92%</b>
Conversion Rate - Group B:	4.63%
Calculated p-value:	0.0001
Confidence Level:	95%
Confidence interval	0.0035 to 0.0107

# Results Overview:

- P-value(0.0001) < significance level,  $\alpha$  (0.05) - Reject the null hypothesis in favour of the alternative hypothesis.
- The 95% confidence interval is between 0.0035 and 0.0107.  
Doesn't include 0, proves there is difference in conversion rates

# Conclusion – Test1:

Metric evaluated – Conversion rate

The findings favours the requirement to improve the existing homepage with food and drinks bar.



# Hypothesis Test2 : T-Test

Metric evaluated – Average amount spend

- Null Hypothesis ( $H_0$ ): There is no difference in the average amount spent per user between the two groups ( $\mu_A = \mu_B$ ).
- Alternative Hypothesis ( $H_1$ ): There is a difference in the average amount spent per user between the two groups ( $\mu_A \neq \mu_B$ ).

## Test2 - Statistical Results:

<b>Average Amount Spent - Group A:</b>	<b>\$3.375</b>
<b>Average Amount Spent - Group B:</b>	<b>\$3.391</b>
<b>Calculated p-value:</b>	<b>0.946</b>
<b>Confidence Level:</b>	<b>95%</b>
<b>Confidence interval</b>	<b>(-) \$0.471 to \$0.439</b>



# Results Overview:

- P-value(0.946) > significant value,  $\alpha(0.05)$ , we would fail to reject the null hypothesis
- The 95% confidence interval is between  $-\$0.471$  to  $\$0.439$ . includes 0, proves there is no much significant difference in average amount spent between group A & B.

## Conclusion – Test2:

Metric evaluated – Average amount spent

Strong statistical evidence is not found to conclude that there is a significant difference in the average amount spent per user between the two groups.

# Recommendation:



Introducing a banner featuring key products from the food and drink category at the top of the GloBox website.

# Q & A:

Que: Which version of the landing page was more effective?

Ans: The landing page with the new banner

Que: What are the limitations of A/B testing?

Ans: Dataset contains a significant number of missing values and areas where essential information is absent.

Que: How can we improve the effectiveness of our A/B testing?

Ans: Many ways like targeting the testing to a specific audience, and running the test for a longer period of time, rigorous statistical testing ...

The background of the slide is a dark blue gradient with a complex network of glowing blue nodes and connecting lines, resembling a molecular or digital network structure.

"In embracing change, we embrace growth."

Thank you for your time and consideration.

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