A/B TESTING - FINAL PRESENTATION

THE RIGHT MUSIC FOR YOU

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Background

- In 2021, Apple Music's market share was almost a **third** of Spotify's
- Apple started providing free trials to Apple Music on purchase of some products

Motivation

- Is Apple's Marketing Strategy effective?
- Would that same idea work for a different streaming service?
- What are some features that play a role in determining an individual's choice of streaming service?

Survey Design - A/B Test

- Hypothesis:

  Exposure to the advertisement message detailing the 3-month free usage will affect an individual's intention to try the advertised service, switch to the advertised service, or their rank-ordered preference for the service

- Data Collection through Qualtrics Survey
- Treatment is exposure to ad message detailing features and 3 month free trial
- Randomization
  - 2 - Subgroups based on primary music streaming service (Apple Music vs Non-Apple Music)
  - Randomization within sub-groups
- Overall Evaluation Criteria
  - Positive Intent Indicators for intent to try, switch, change in preference rank-order
  - Cumulative Positive Intent showing at least one positive intent behavior
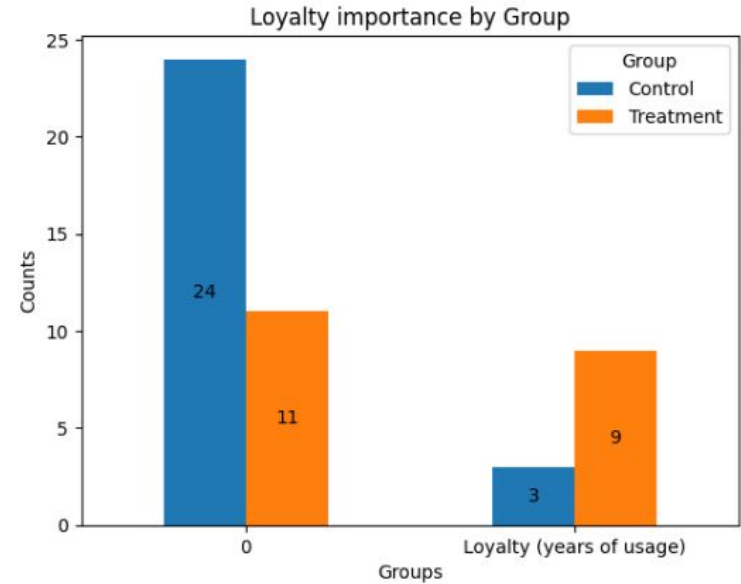
Qualitative Analysis
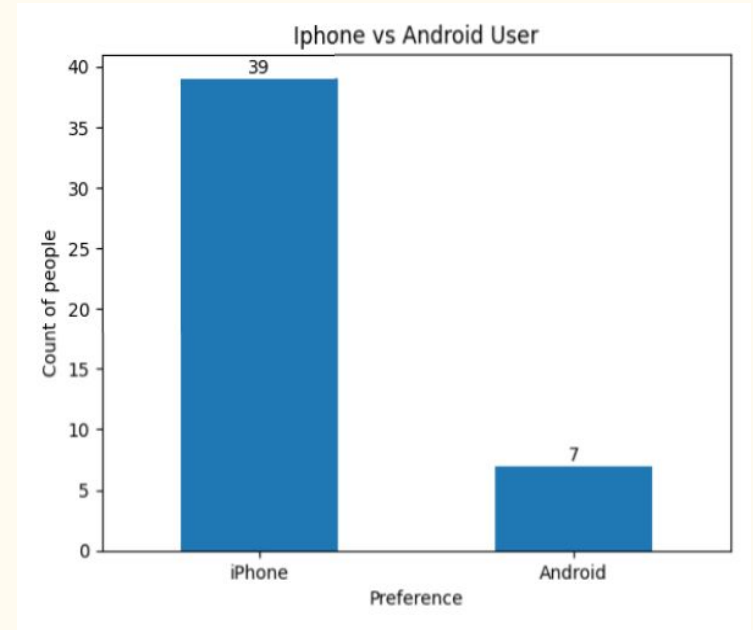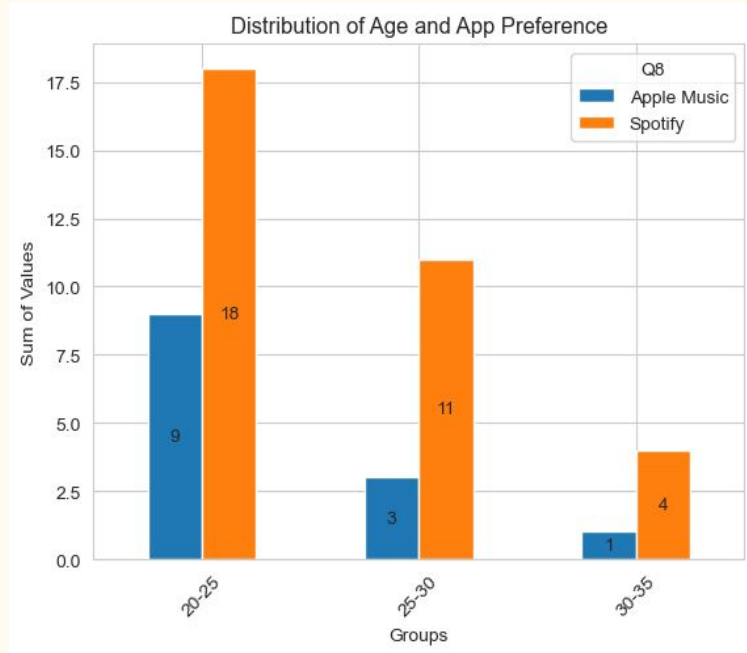
Experiment Groups and Success Metrics

Randomization Results

Count Plot of Success Metrics
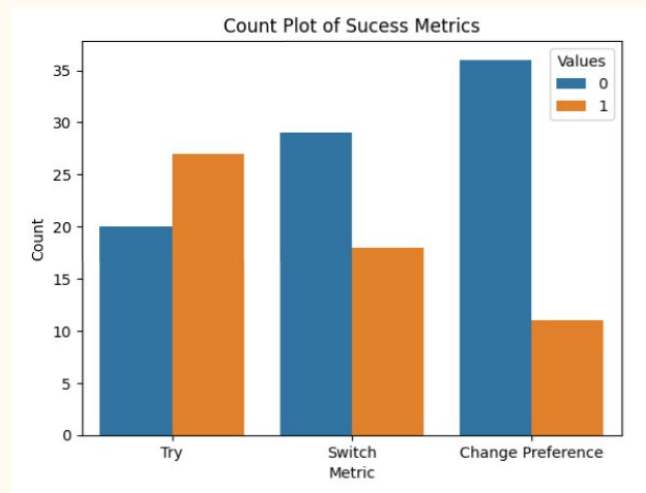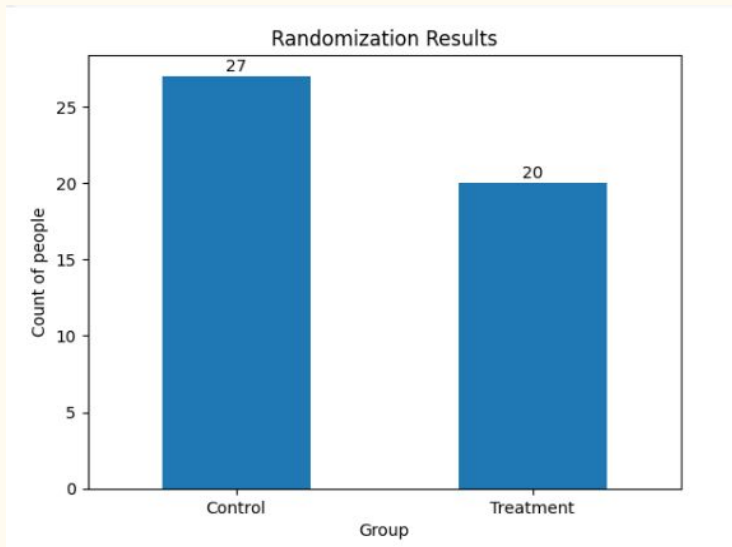
Group	Try	Switch	Change Preference
Control	19	13	8
Treatment	8	5	3

Examining Differences

Willingness to spend by Group

Loyalty importance by Group
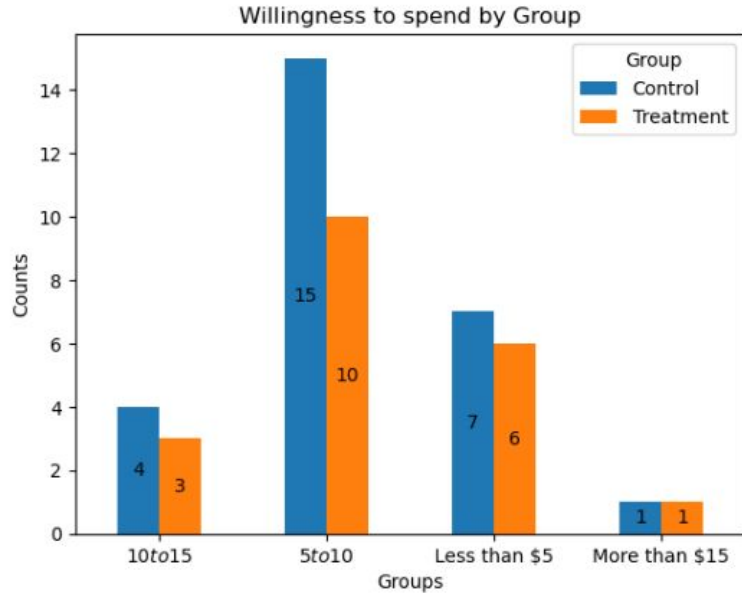
Results

Metric	Observed Difference	T-statistic	Significance
Cumulative Positive Intent	-24.29%	-1.97	Significant (90%, 95%)
Positive Intent to Try the Advertised Streaming Service	-27%	-2.11	Significant (90%, 95%)
Positive Intent to Switch to the Advertised Streaming Service	-23.68%	-1.65	Insignificant (90%, 95%)
Positive Intent Measured by Change in Preference	4.45%	0.5424	Insignificant (90%, 95%)

- **Reduced the intent to try** the advertised service, suggesting potential issues with its presentation.
- **No significant effect on switching or changing preferences**, indicating limited persuasion among existing users of other services.

Stratification Results

- A rich survey design enables us to explore the treatment effect within substratas like :
    - People who were treated with Spotify Recomm v/s Apple Music Recomm
    - Hours spent listening to music
    - Consumer Loyalty

- Statistically Significant Results 5% CI: Negative Treatment Effect for people who spend 0-10 hours listening to music . Close call with negative Tx effect within recommendation for Apple music at 0.007 p value

Hours spent listening to music and podcasts by Group
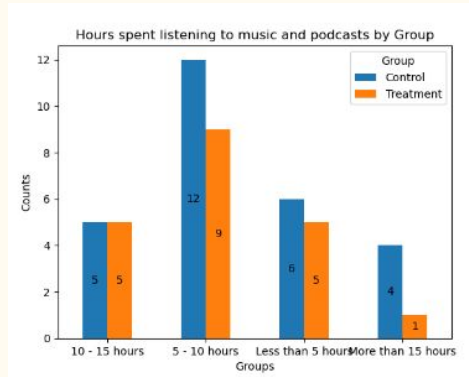
Metric	Value
Difference in Averages	-0.357
T-Statistic	-2.05
P-Value	0.048

THANKYOU