

Mobile App Subscription Screen A/B Test

Hypothesis

A 50% discounted subscription offer will create a perception of a personalized offer for users, which will increase the current 17% subscription purchase rate. Offers presented specifically to users may result in a higher conversion rate.

User Definition

- **Test Group:** Users who will see the new screen offering a 50% discounted subscription.
- **Control Group:** Users who will see the current subscription screen.
- **iOS Users:** Users of Apple devices.
- **Android Users:** Users of Android devices.

Primary Metrics

- **Conversion Rate:** Directly measures the main objective of the test. Indicates how responsive users are to the subscription offer.
- **Subscription Duration and Subscription Renewal Rate:** Helps assess the long-term success of the offer by evaluating how long users continue their subscriptions and their renewal rates.

Secondary Metrics

- **Screen Impressions:** Measures how frequently the screen is viewed. A high number of impressions provides a comprehensive view of the analysis of conversion rates.
- **Click-Through Rate (CTR):** Measures how engaging the screen content is to users. A low CTR may indicate that the screen or offer is not appealing.
- **Subscription Start and End Dates:** Provides detailed measurement of the duration of user subscriptions and how long the subscriptions last.

Sample Size and Test Duration Calculation

Sample Size Calculation

- **Current Conversion Rate (Control):** 17%
- **Expected Conversion Rate (Test):** 20% (due to discount effect)
- **Confidence Level:** 95%
- **Power:** 80%

Test Duration Calculation

- **Daily Number of Users:** 2.000
- **Percentage of Users Reaching the Subscription Screen:** 34%
- **Daily Number of Users Seeing the Screen:** $2.000 \times 0,34 = 680$ users
- **Sample Size per Group:** Approximately 318 users
- **Total Sample Size:** $318 \times 2 = 636$ users
- **Test Duration:** $636 / 680 \approx 0.935$ (In this case, approximately 1 day of testing is required.)

Conditions for Test to Be Considered Successful

- **Success Criterion:** The new subscription screen should significantly increase the conversion rate.
- **Confidence Level:** A 95% confidence level indicates the reliability of the test results.

Alternative Test Suggestions

- **Testing Different Discount Percentages:** An A/B test could be conducted to evaluate the impact of discounts of 25%, 50% and 75%.
- **Testing Different Design Elements:** An experiment could test the effects of different design elements such as color, layout, or message content.

