Optimizing Waze Engagement: Device Type and User Ride Patterns

Executive Summary 4: Device OS and Waze Trip Frequency Analysis

Overview

The Waze data team is conducting a comprehensive project to enhance user retention and drive growth by mitigating monthly user churn. This report presents the findings of a two-sample hypothesis test, a key milestone in understanding user behavior, specifically concerning the influence of device type on ride frequency.

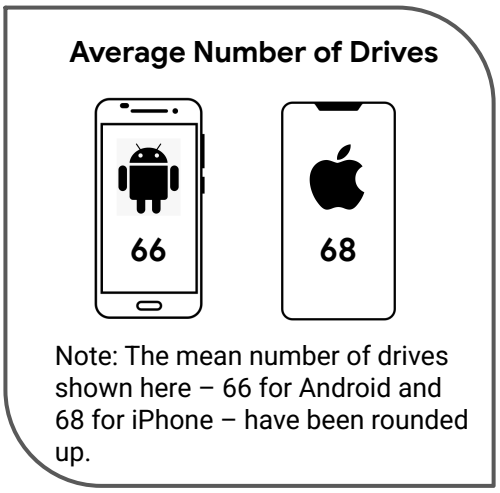
Objective

To determine whether a statistically significant difference exists in the average number of rides taken by Waze users based on their device type (iPhone vs. Android). This analysis aims to provide data-driven insights to inform user engagement strategies.

Results

- Analysis revealed that iPhone users average approximately 68 rides, while Android users average approximately 66 rides.
- However, a two-sample t-test indicated that this difference is not statistically significant (p-value > 0.05).
- Therefore, we fail to reject the null hypothesis, concluding that device type does not significantly impact the average number of rides taken by Waze users.

Impact:
These results suggest that user engagement, as measured by ride frequency, is not primarily driven by the user's mobile operating system. This insight allows Waze to prioritize other factors in its user retention strategies.



Note: The mean number of drives shown here – 66 for Android and 68 for iPhone – have been rounded up.

Next Steps

- Conduct further statistical tests on other potential variables (e.g., demographics, in-app feature usage, time of day) to identify key drivers of user behavior.
- Explore the impact of temporary changes to marketing strategies and user interface design through A/B testing to gather additional data on user churn.
- Continue investigations into all other possible factors influencing user churn.