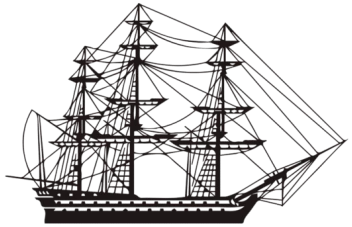

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Modern UI: Boosting Vanguard's Client Engagement

Ryan van den Akker

Agenda

Vanguard

- Introduction
- Project Overview
- Exploratory Data Analysis
- Key Performance Indicators
- Hypothesis Testing
- Recommendations

Introduction

Background: Vanguard aim to improve client's experience by implementing a modern User Interface (UI), coupled with timely in-context prompts.

Experiment:

- Between 15th March 2017 to 20th June 2017
- A/B test conducted
- Control group: previous UI
- Test group: updated UI

Problem Statement:

Does the updated UI boost client's overall engagement and user experience?

Project Overview

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Merging 3 Datasets

- Client Profile
- Digital Footprint
- Experiment Roster

Null Values

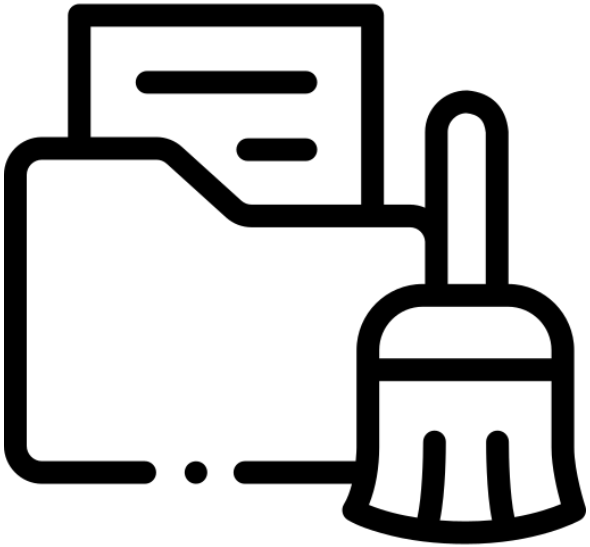
- Rows containing null values were dropped prior to analysis

Column Names

- Renaming columns for consistency

Outliers

- Upper and Lower limits were set and values exceed these limits were dropped



Exploratory Data Analysis

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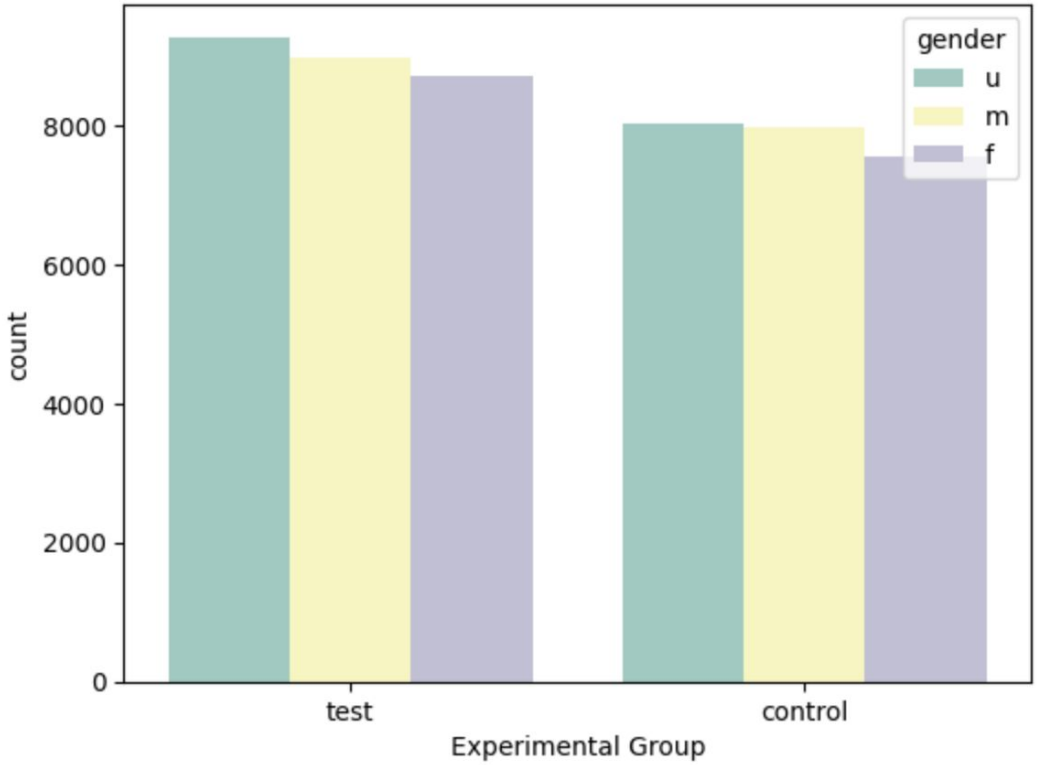
48.5 mean age of clients

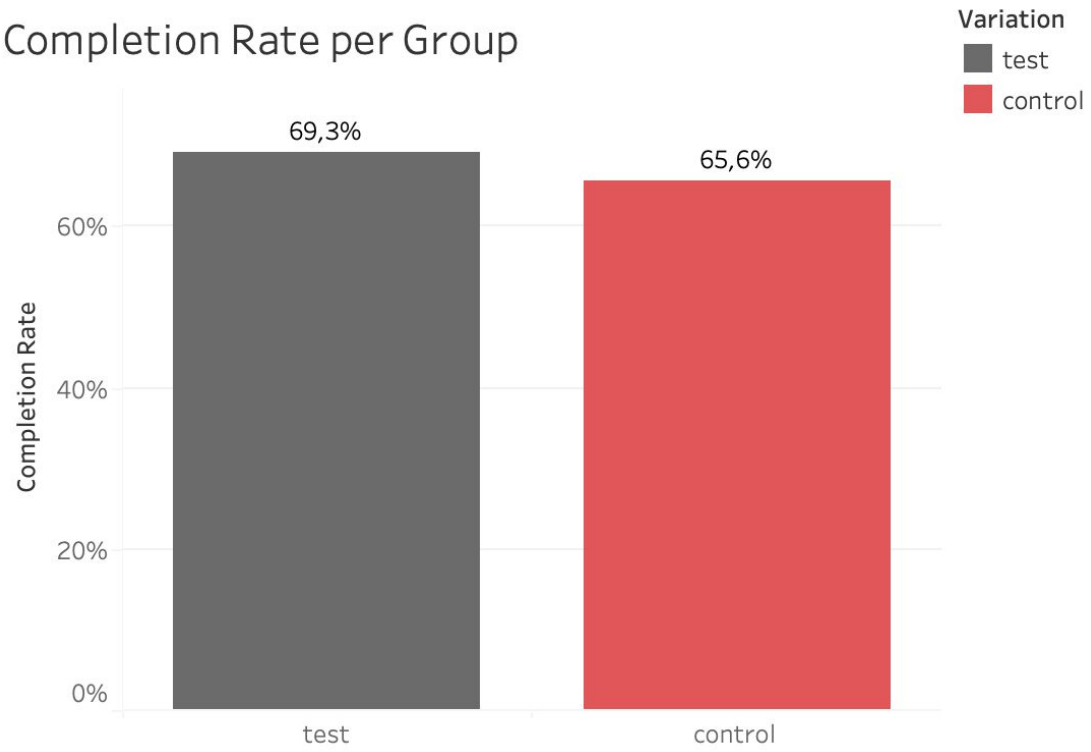
32%$_f$ | **33%**$_m$

50,487 clients

26,961 test | **23,526** control



KPI 1 - Completion Rate



3.7% difference

KPI 2 - Step Duration

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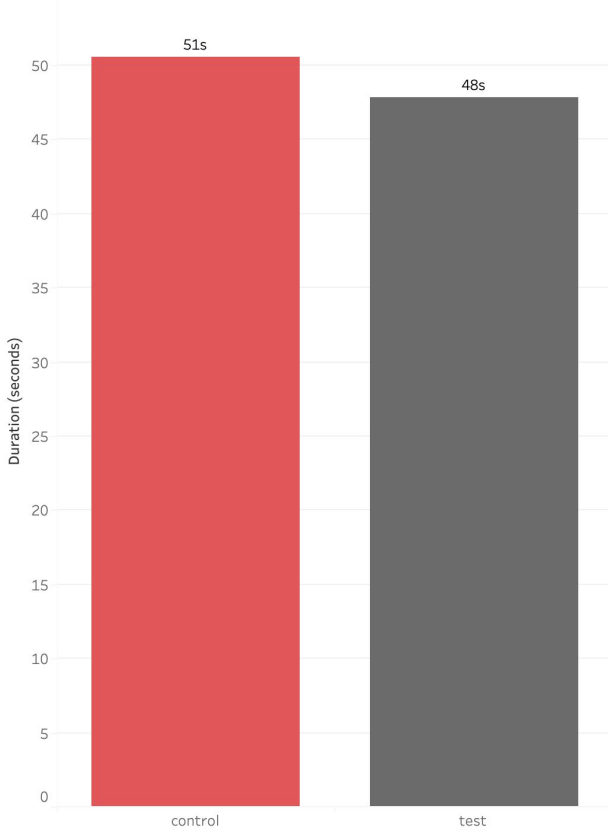
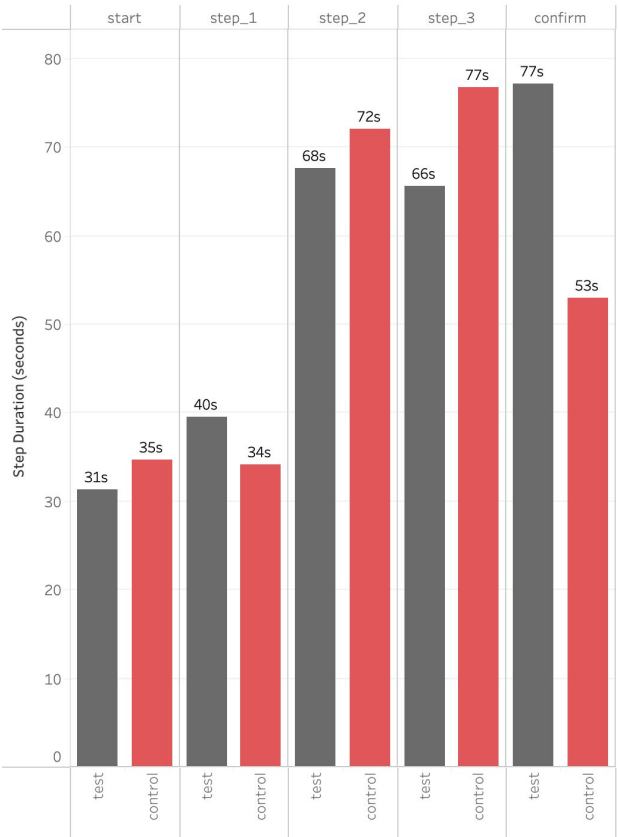
Average Duration by Group



-3s

Average Step Duration by Group



Variation
control
test

Process Step
(All)
confirm
start
step_1
step_2
step_3

KPI 3 - Error Rate

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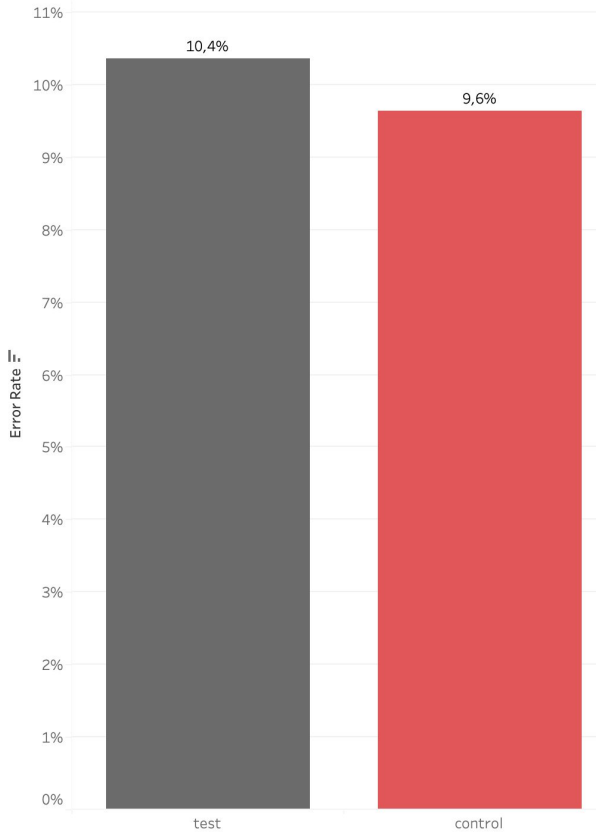
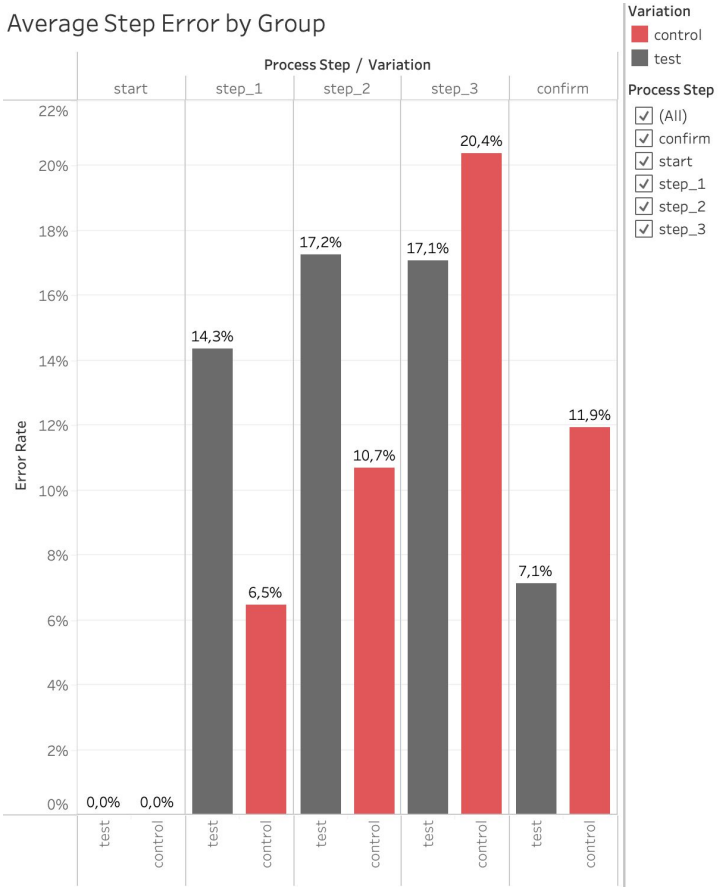
Error Rate per Group



+.8%

Average Step Error by Group



Hypothesis Testing

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H0: Test group completion rate = Control group completion rate

H1: Test group completion rate ≠ Control group completion rate

Z-statistic = 13.253 **p-value** = 0.000

Outcome: with a Z-statistic of 13.253 and a p-value much smaller than 0.05, there is strong evidence to reject the null hypothesis.

Hypothesis Testing

Vanguard

H0: Test group completion rate = Control group completion rate + 5%

H1: Test group completion rate ≠ Control group completion rate + 5%

Z-statistic = -7.218 **p-value** = 1.000

Outcome: with a Z-statistic of -7.218 and a p-value much greater than 0.05, there is not evidence to reject the null hypothesis.

Recommendations

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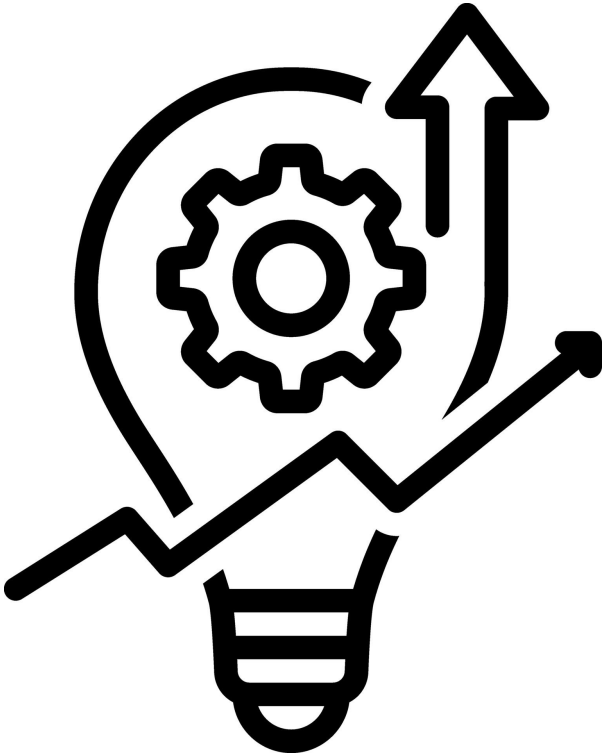
Final Verdict

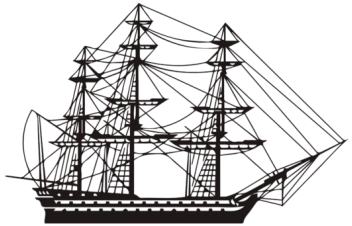
- Increased completion rate
  - However, does not meet the 5% threshold
- Lower average duration in test group
- Higher error rates observed in the updated UI
  - Indicates potential issues with in-context prompts

Areas of Improvement

- Future enhancements should look to reduce error rates by improving the prompts
- Longest durations are in step 2 and 3
- Highest error rates also in step 1 and 2



Thank you!



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