

ANALYSIS

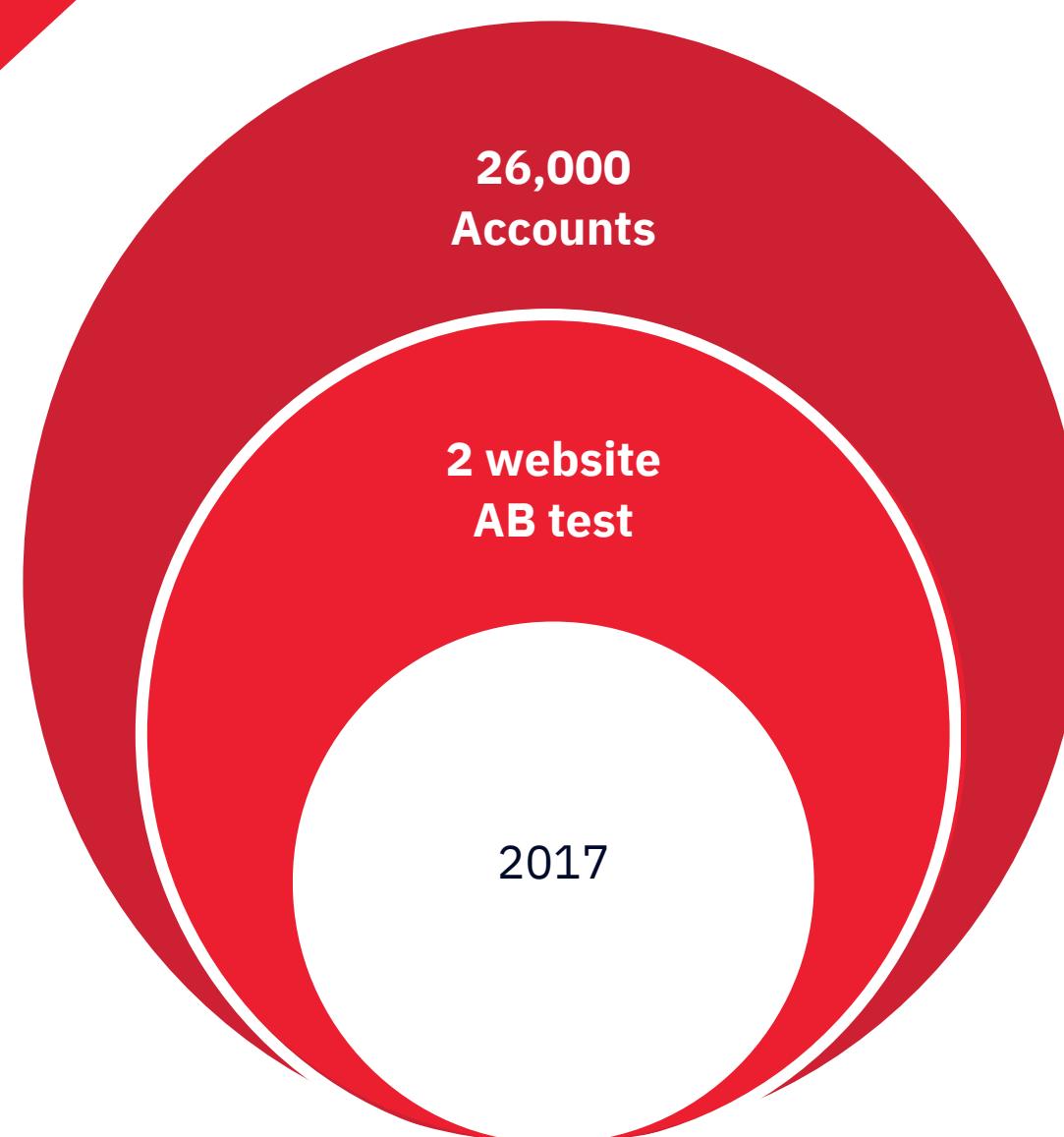
vanguard

A B TEST FOR NEW WEBSITE

by Joel & Jean Philippe



A presentation on the analysis made following the AB test of our new website compared to the old.



ANALYSIS INTRODUCTION

The study specifically measured **completion rates** (whether users reached the final confirmation step), **time spent** on each step, and **error rates** (instances of users reverting to previous steps). Both groups were segmented by **gender/age** and **tenure** to ensure we accounted for various behavioral factors.

The primary goal was to determine whether the new design leads to a better **user experience** and better **completion rates**.



METHOD

- 01** **Data Cleaning:** We handled missing values, fixed data types, and removed duplicates to ensure data consistency for accurate analysis.
- 02** **Key Metrics:** We focused on completion rates, time spent per step, and error rates to assess the success of the new design.
- 03** **Age Segmentation:** We split users into age groups to analyse differences in behaviour and design impact by age.
- 04** **Group Comparisons:** We compared Test, Control, and Undefined groups to evaluate the effects of the new design on user performance.



02

HYPOTHESIS

HYPOTHESIS

1

OLDER PEOPLE ARE OUR IDEAL CUSTOMER

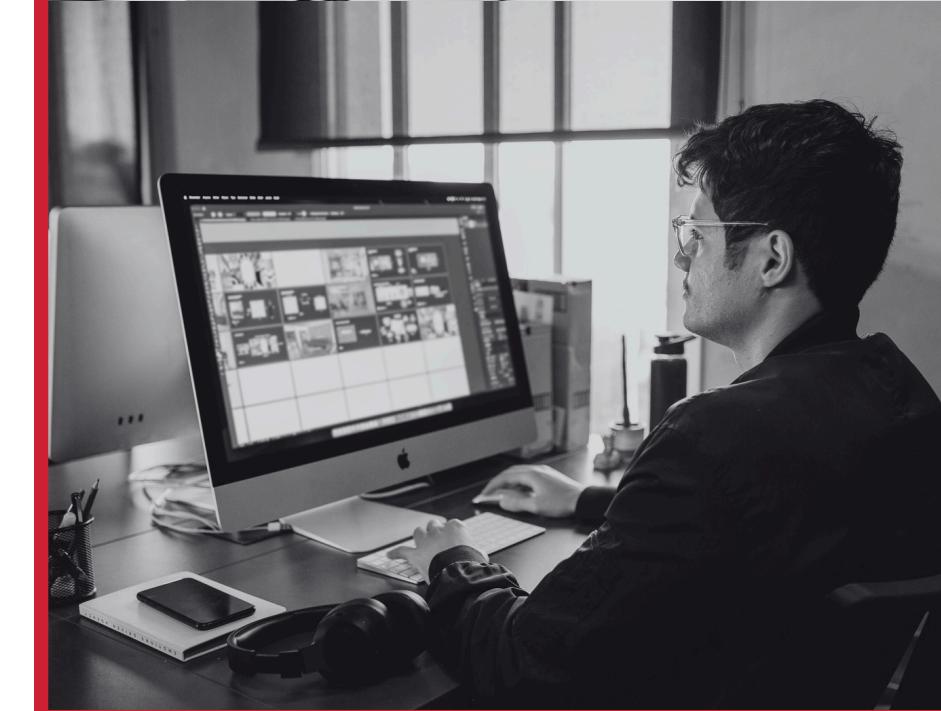
Due to long Tenure with us.



2

NEW WEBSITE IS BETTER AT EVERY STEPS

New design is better than old one.



03

Gender Distribution

To test if there are any big gender gap between males and females as well as against the undefined group.



Completion Rate by Age Group

To identify which age group completes the log-in process and how it compares to the various steps.



Age Group Distribution

To identify which age group is the most prominent in our client demographic.



Client Tenure Distribution

Identify the client age group with the longest tenure within our pool.



Average Time Spent on Each Step by Age Group

To identify the time spent by different age groups (Young and Old) on the process steps.



Time Spent on Each Step by Gender and Age Group

To identify which step required more time for completion.



Error Rates by Age Group and Test/Control Group

To understand the rate of errors among age groups and variation (Test and control).



Impact of Number of Accounts on Time Spent and Error Rates

To reveal the impact of number of accounts per user on time spent and the rate of errors.



FINDINGS

ANALYSIS FINDINGS

- ▶ **Higher Completion Rate for Younger Users:** The Test group showed a significantly higher completion rate for the 30-50 age group, but there was no significant improvement for older users (50-70).
- ▶ **Increased Time on Early Steps:** Users in the Test group spent more time on early steps compared to the Control group, but there was no significant increase in time on the final confirmation step.
- ▶ **Higher Error Rate in Test Group:** Contrary to expectations, the Test group experienced a higher error rate, suggesting the new design led to more user mistakes rather than reducing them.



HYPOTHESIS

HYPOTHESIS TEST

1

OLDER PEOPLE ARE OUR IDEAL CUSTOMER

The Test group showed a significantly **higher completion rate for the 30-50 age group** ($p\text{-value}: 2.034e-09$) but not for the 50-70 age group ($p\text{-value}: 0.308$).

Older users in the Test group (**50-70**) faced **higher error rates** and **longer times** on key steps, indicating they struggled more with the new design.

2

NEW WEBSITE IS BETTER AT EVERY STEPS

The new design has **improved completion rates** but still has significant issues with **error rates** and **time spent on early steps**, meaning it is not better at every step.

OUR DIFFICULTIES



The image shows a person's hands holding a smartphone. The screen displays a financial trading application for 'Stream DATAcoin'. The app shows a candlestick chart with price movements over time, current price (\$0.04979185), and market statistics like Market Cap (\$34.12MM) and Circulating Supply (680.94MM DATA). The background is a blurred view of a keyboard and a laptop screen.

Data Imbalance



The Control and Test groups had varying sample sizes, making direct comparisons more challenging and requiring careful statistical methods

Complex User Behavior



Tracking user progress across multiple steps introduced complexity, especially when analyzing step reversions and time spent.

Error Rates & Variations



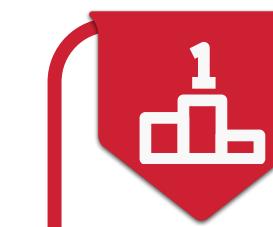
Identifying and interpreting error rates across different steps and variations required extra care to ensure accurate insights.

CONCLUSION

CONCLUSION

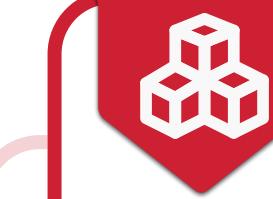
The findings show that the new design **improves completion** rate particularly for **younger users** with little benefits to **older users** who faced **higher time spent** and **error rates**.

Additionally , the test group exhibited **higher error rate during initial steps** which suggest early-stage user friction.



Training needed

Additional support and guidance (Training) in the initial steps, particularly for older users and first-time users, could improve overall performance.



Include Prompts to users

Providing more intuitive prompts or onboarding experiences may help users navigate the process more efficiently.



Redesign Early Steps

Revisiting Start and Step 1 design elements with simpler interface could significantly reduce error and improve user experience.

thank you

● FOR YOUR ATTENTION

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any questions?

● HAPPY TO ANSWER

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