Beyond THE CLICK

How Digital Experiment Revealed Hidden Client Behaviors

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Introduction

- Vanguard ran an A/B test to test a redesigned UI
- Does the new UI increase completion of an online process?
- Purpose: Increase completion rates and reduce friction in the digital journey.

Data **Overview**

LOADED

- Three datasets combined
- Standardized columns

CREATED

- age_group,
- client_tenure_days

CLEANED

- Handling missing values
- Standardizing timestamps
- Merged

SCOPE

- ~317k rows
- visit-level KPIs and client-level demographic table
- Control vs Test
- Step orders

EXPORTED

- Export to Single-Sheet Excel File
- Complete dataset ready for EDA, hypothesis tests, and Tableau.

Who uses the process?

- Largest user: 65+ clients
- Majority are long-standing clients
- This context helps explain behavioral differences observed in the experiment

client_type	logons_6_mnth	calls_6_mnth
New (<= 6 months)	5.00	2.56
Long-standing (> 6 months)	5.04	3.50

1. Client Age Group Distribution for Online Process Users
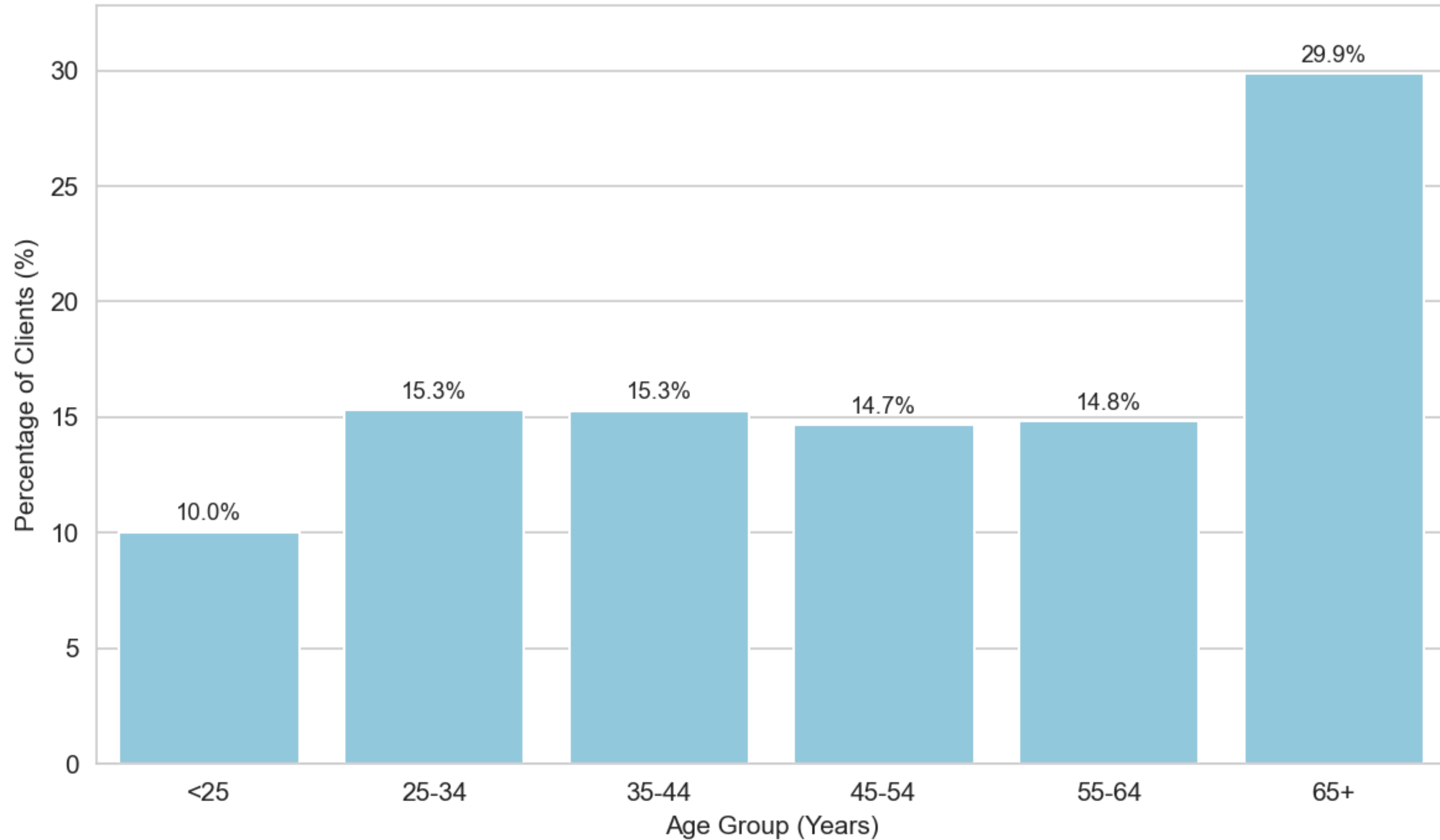
PERFORMANCE
Metrics

- Completion Rate: +13.6 percentage points improvement
- Total Step Time: Slight increase in later steps
- Error Rate: Slightly higher in Test
- Overall: The new design produced a meaningful uplift

process_step		
start	100.00	100.00
step_1	76.18	85.31
step_2	65.14	73.90
step_3	59.19	66.92
confirm	51.90	65.55

HYPOTHESIS
Testing

Hypothesis 1

Is the average age of clients engaging with the new process same as those engaging with the old process?

Hypothesis 2

Is considered significant the difference between the completion rate of group Test and Control ?

Hypothesis 3

Is this new UI design version profitable?

EXPERIMENT
Evaluation

- Success: New design significantly boosted completion rates.
- profitability promise:completion rate != +5%
- ~3 months — adequate for stable results given sample size
- Potential biases: repeat visitors, device differences
- Opportunity: Optimize steps 3 and confirmation to reduce time/errors.
- Strategic Insight: Design for older, long-standing clients.
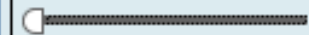
TABLEAU
Dashboard

- Showcase the Tableau dashboard and visualizations created.
- Demonstrate how viewers can interact with the data based on demographics and time.

VANGUARD A/B TEST ANALISYS

Number of clients

50 487

Group Test/Control

Variation	
Control	23 526
Test	26 961

Number of visits

317 123

FILTERS

Weeks of experim..

13 mars 2(19 juin 20!

variatio.. ■ C..

Client Distribution by Age Category

Age G..	Variation
<25	Control
	Test
25-34	Control
	Test
35-44	Control
	Test
45-54	Control
	Test

0K 10K 20K 30K 40K

Total of Clients

AVG Duration by step

Variati..	Proces..
Control	start
	step_1
	step_2
	step_3
	confirm
Test	start
	step_1
	step_2

0   50   100   150   200   250

Avg. Step Duration in second
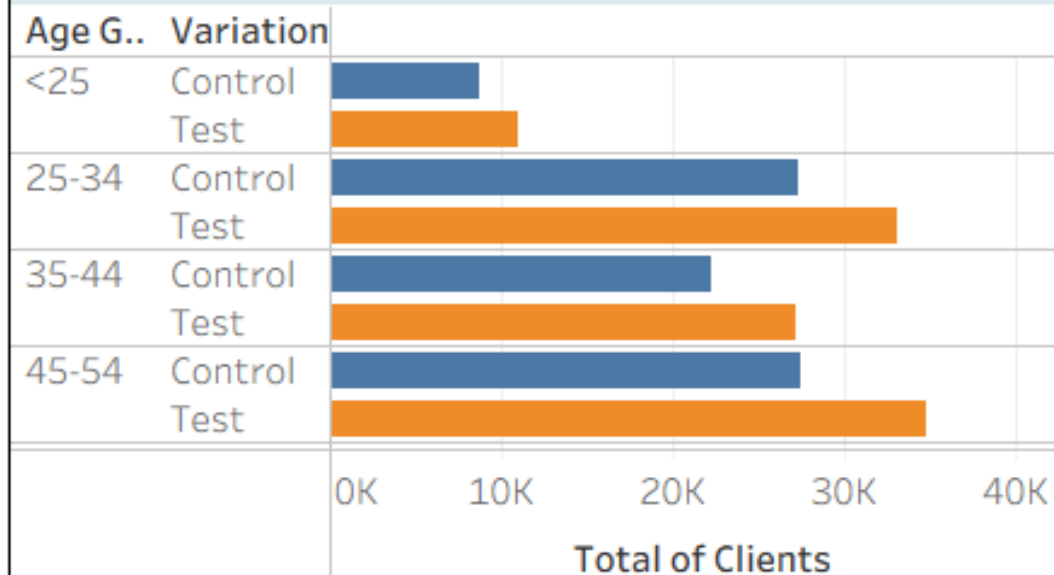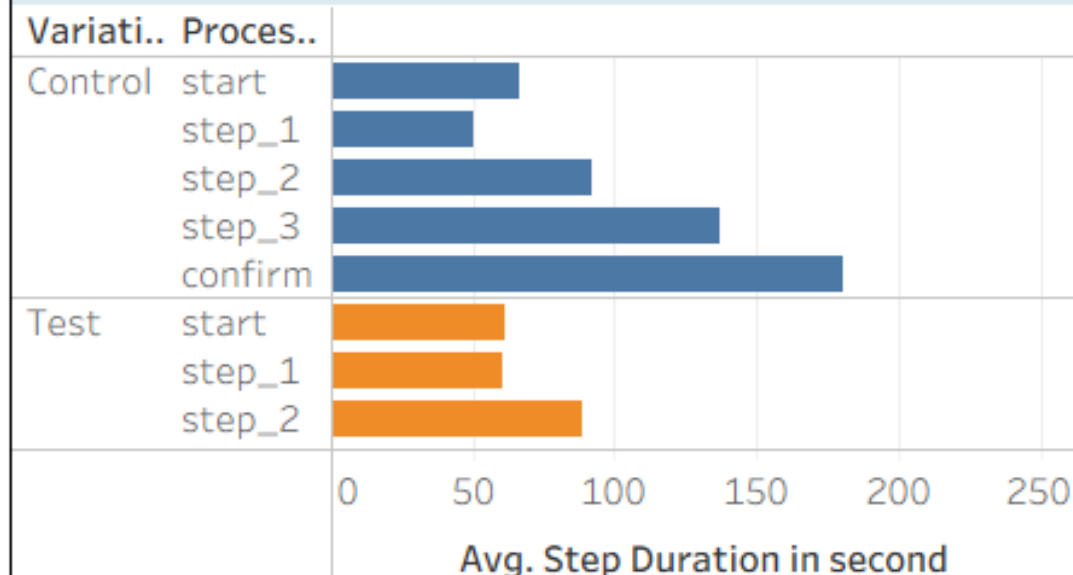
Error rate

Control 3,79%

Test 6,56%

Visits by week

Total of Visit_Id

40K
30K
20K
10K
0K

3 avr.   1 mai   29 mai

weeks of experimentation [2017]
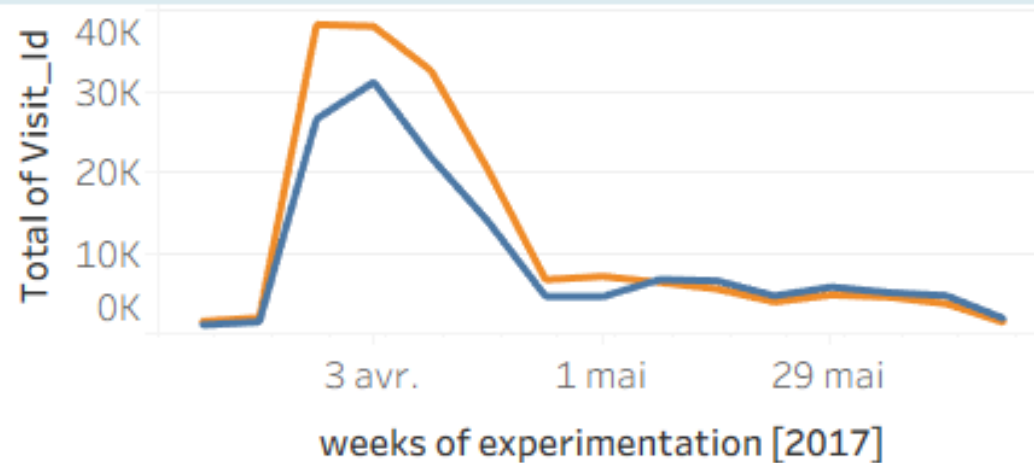
Completion rate graph (%)

Process Step

	start		step_1		step_2		step_3		confirm	
Valeur	100	100	76,18	85,31	65,14	73,9	59,19	66,92	51,9	65,55
	Cont..	Test	Cont..	Test	Cont..	Test	Cont..	Test	Cont..	Test

Profitable Threshold (+5%)

Process Step

confirm

	51,90	65,55
Valeur	Control	Test

80,00
60,00
40,00
20,00
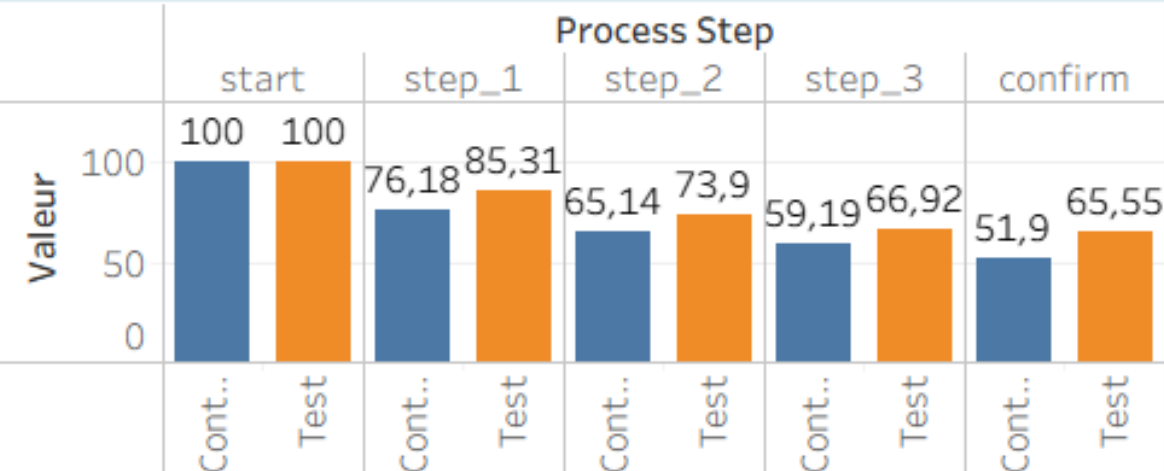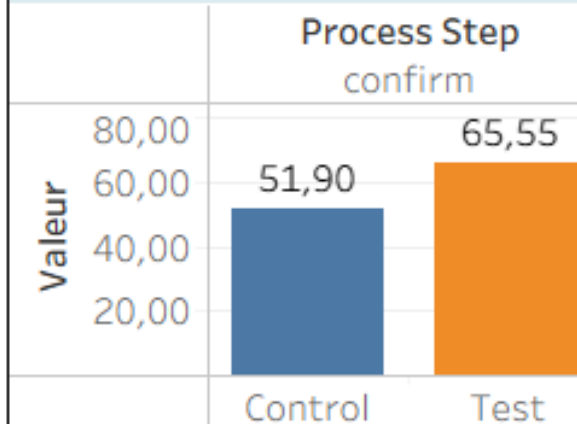
RECOMMANDATION &
Conclusion

- The new UI significantly boosts completion
- The impact is statistically strong and operationally meaningful
- Behavioral data reveals rich insights about Vanguard clients
- Slight increase in time & error rate — fixable via micro-iterations
- Deploy the redesign, prioritize confirm & mid-step improvements
- The new design can be more profitable