



BIG DATA IMPLEMENTATION FOR GROWTH EXPERIMENTS

Puti Ara Zena, Head of Growth



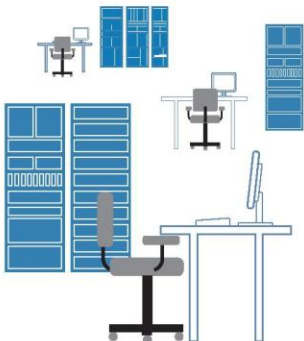
**big
data**



Big Data Evolution: March of Progress

Data waster

Collects data but severely underuse them



Data collector

Collects data but do not consistently maximize their value



Aspiring data manager

Understands value of data and marshals resources to take better advantage



Strategic data manager

Has well-defined data-management strategies that focus on collecting and analyzing the most valuable data

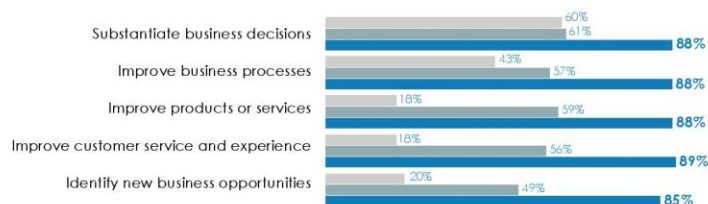


Tracking true progress

2011 to 2015



How are big data currently being used?



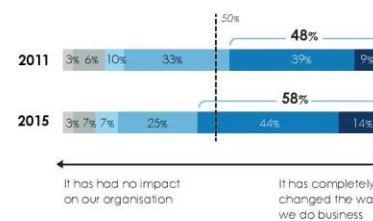
Data wasters & collectors

Aspiring data managers

Strategic data managers

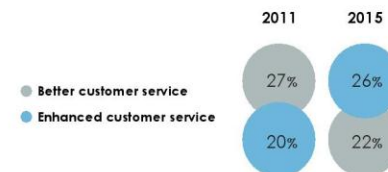
Impact of Data over Past Five Years

Passing 50% Tipping Point



Opportunities of Increased Amounts of Data

From Service to Experience



● Better customer service

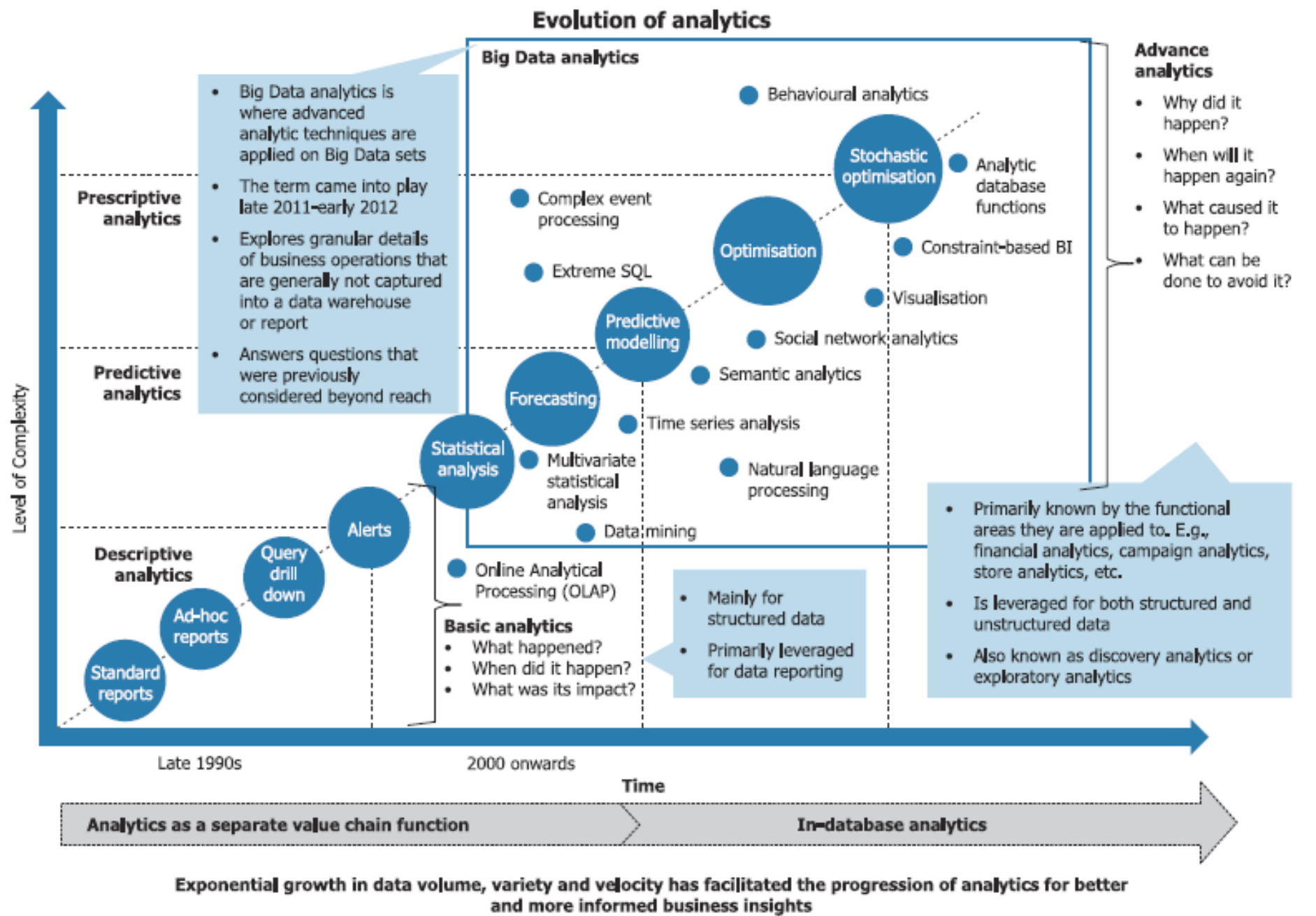
● Enhanced customer service




Big data analytics is the process of examining **large data** sets containing a variety of **data** types -- i.e., **big data** -- to uncover hidden patterns, unknown correlations, market trends, customer preferences and other useful business information.

- Descriptive Analysis
“What has happened?”
- Predictive Analysis
“What could happen?”
- Prescriptive Analysis
“What should we do?”





- 
- Customer Segmentation using RFM Analysis
 - Churn Risk
 - Natural Language Processing (NLP)
 - Time Series Analysis
 - Optimization and Simulation
 - Memory Based Reasoning (Recommendation)
 - Sentiment Analysis
 - Heat map Analysis

More top picks for you



GoPro

Be a HERO.

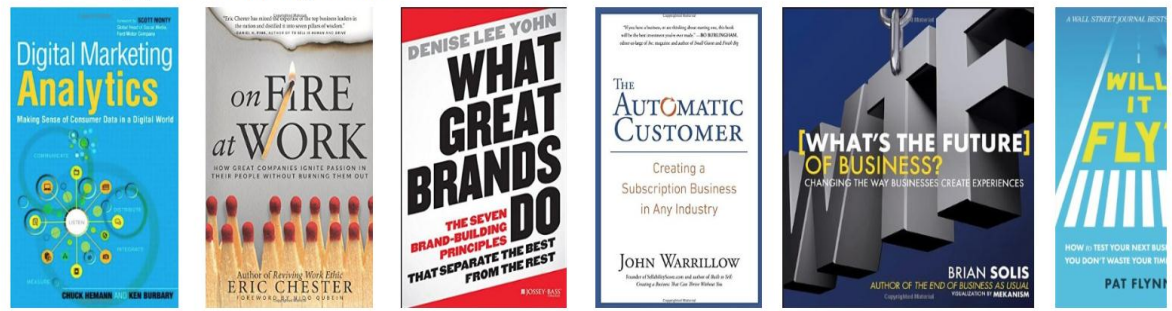
HERO+
LGS

THIS IS YOUR LIFE.
BE A HERO.

SHOP NOW

Ad feedback

Inspired by your shopping trends



Shop Mother's Day gifts

Prime members: Select your free Kindle book

- 1
- BLOOD DEFENSE
MARCIA CLARK
- 2
- DELIVER HER
PATRICIA PERRY DONOVAN
- 3
- GOLDEN AGE
JAMES HAMILTON

FREE
Two-Day Shipping

spring event
Freshen up
your space

Cart Subtotal: \$15.42

2 recent changes in Cart

Proceed to checkout

☐ This order contains a gift

\$15.42
Prime

GOJEK

Saved for later (2)

bisa gofood aplikasi dengan customer mendapatkan membuat make account cant akun tidak booking order

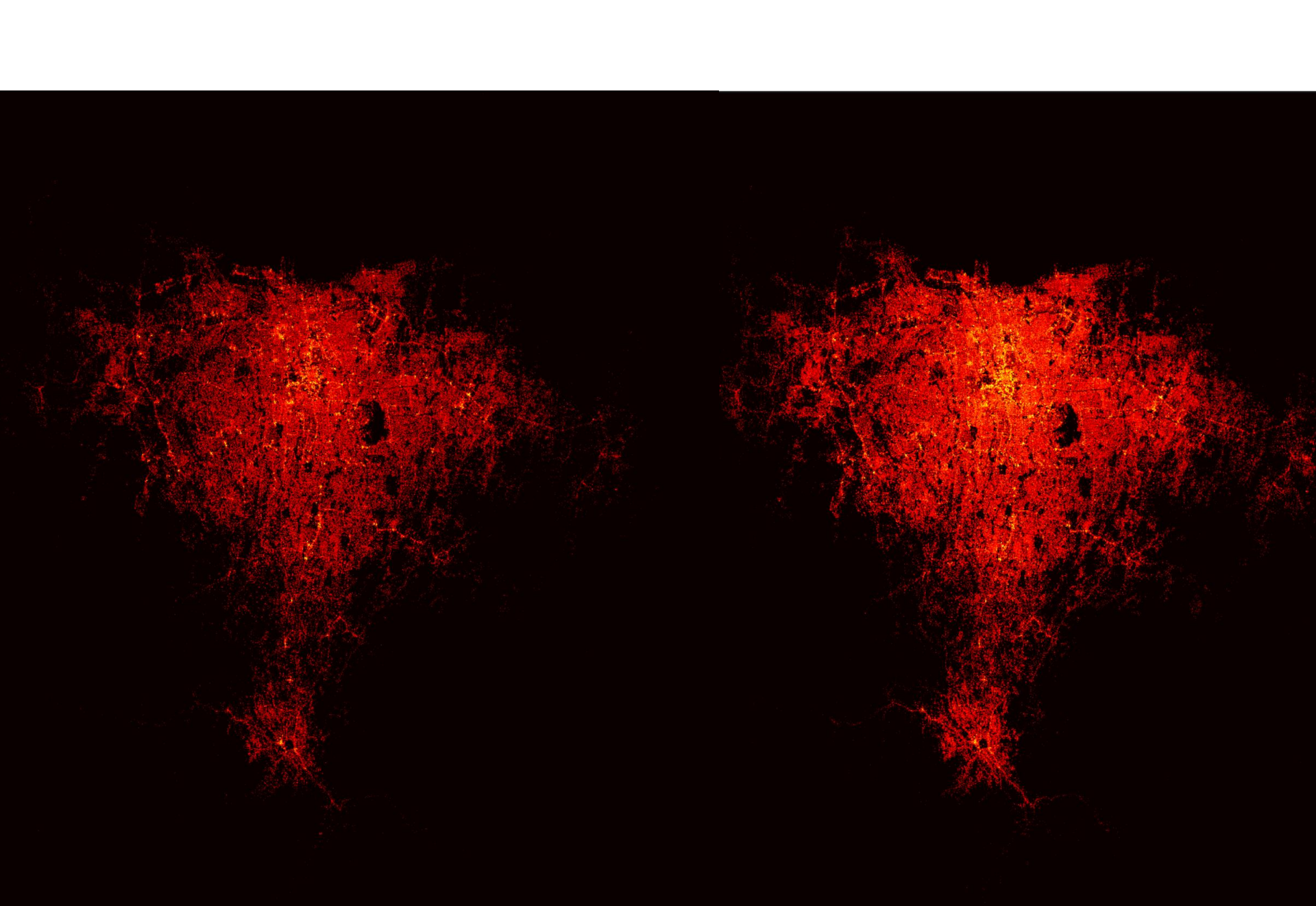
gokakgofoodaplikasidengancustomermendapatkanmembuatmakeaccountcantakuntidakbookingorder

driverfailedpendingkokmasukmelakukanbokingconfirmationtanyaselalurequestituuntuksiangdapatkonfirmasi dipandu komplain bs bls blongterblokmenukarnakomarttakrespon sdh fwdg eror dan

melakukan sedang merchant layanan terblog blonger konfirmasi dipandu komplain bs bls blongterblokmenukarnakomarttakrespon sdh fwdg eror dan

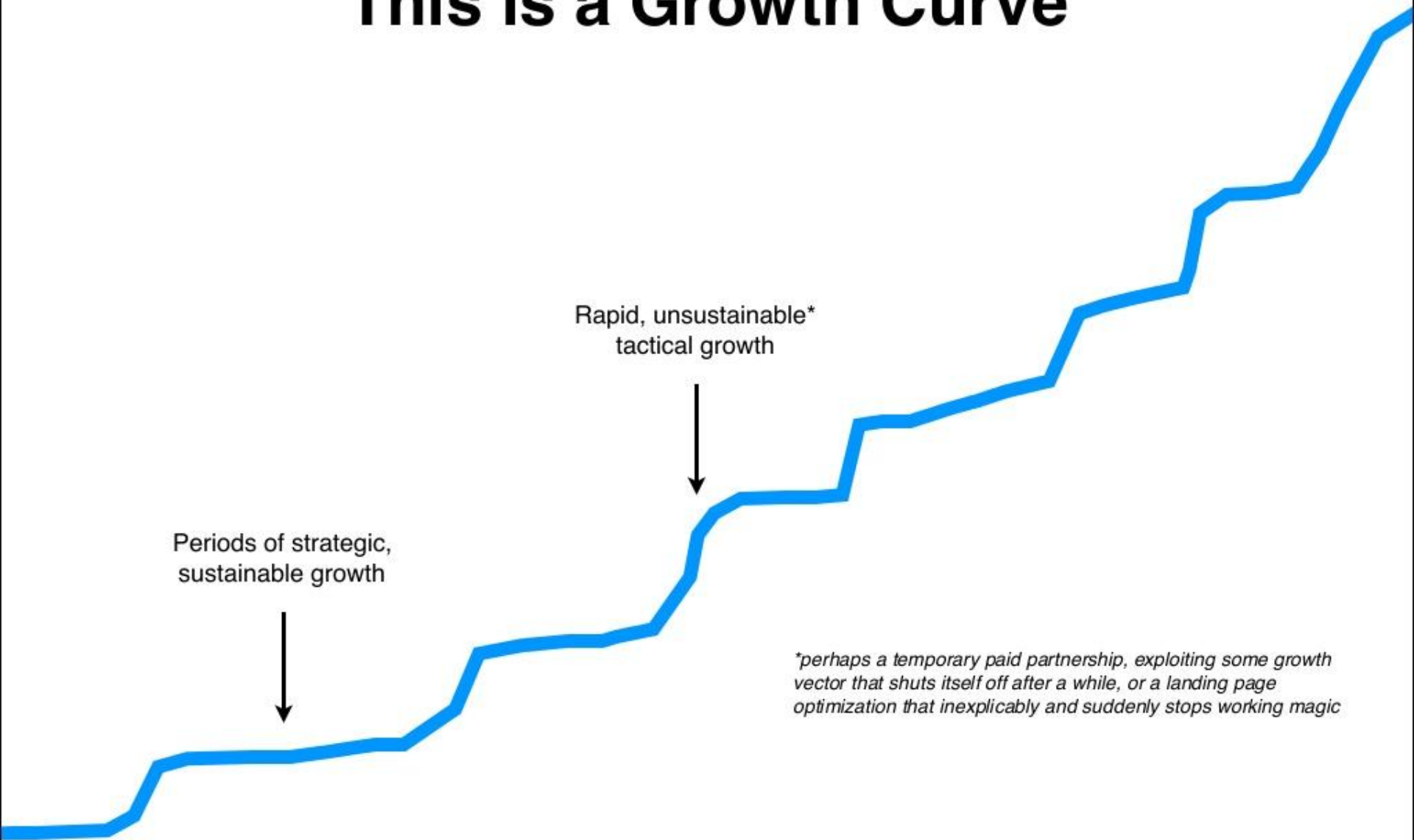
lokasiphone ini expired melebihi terus tdk sama panduannya atau mohon kesulitankesulitan rideerror versidikarenakan login calculate ter help orderan tlf blm konfirmasi bermasalah tapi log blokir terblokmenukarnakomarttakrespon sdh fwdg eror dan

otomatis memesan selamat nomer apps trouble location knp pesan email dibantu sekali gagal lagi hal semua tolong dear line nya dari pemesanan buat terblokir digunakan food kenapa mau input nomor app help generalgoride setiap pesen menanyakan



[illegible]

This is a Growth Curve



GROWTH HACKING

- Like A Pirate -

Acquisition

How do users find you?

Activation

Do users have a great first experience?

Retention

Do users come back?

Revenue

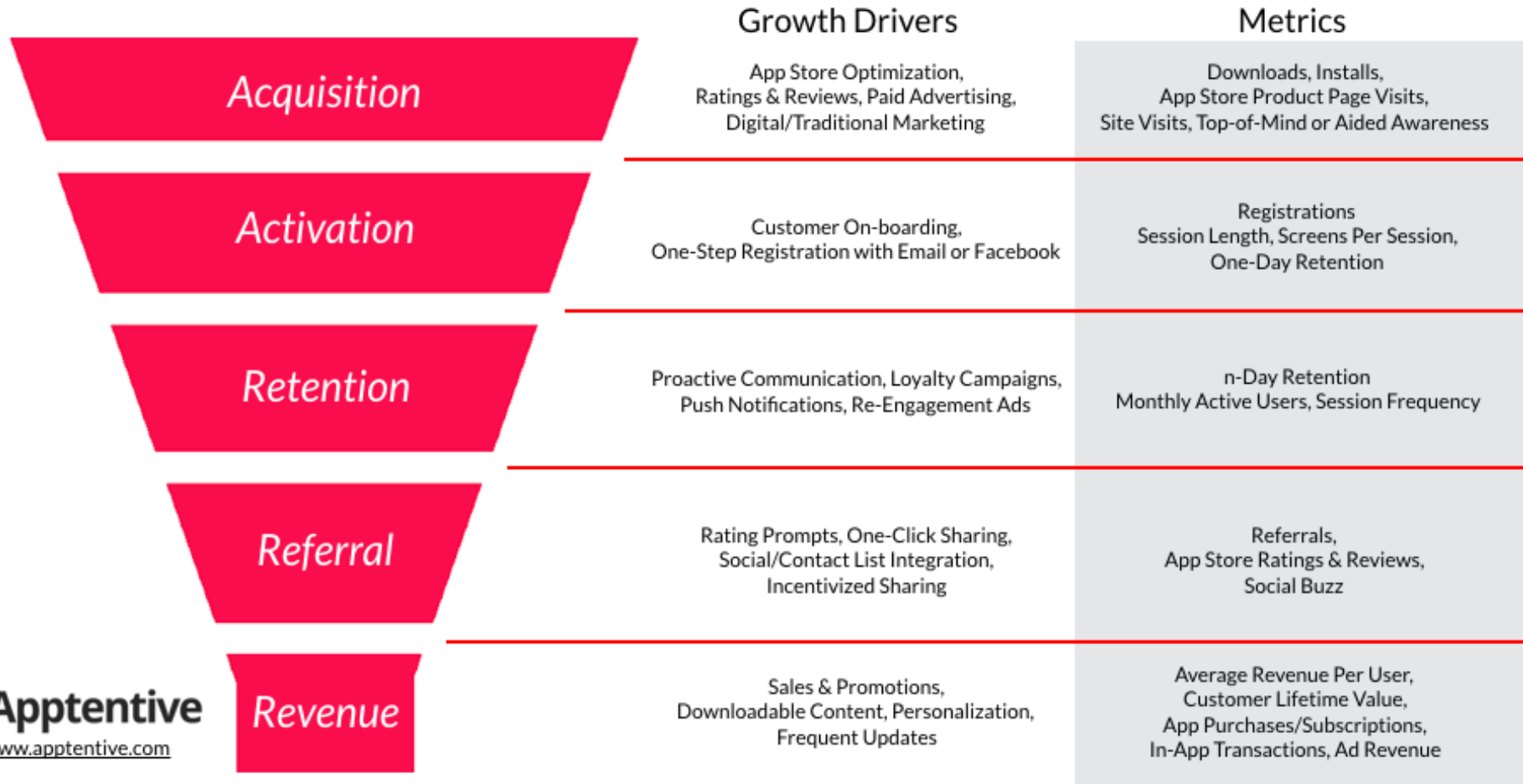
How do you make money?

Referral

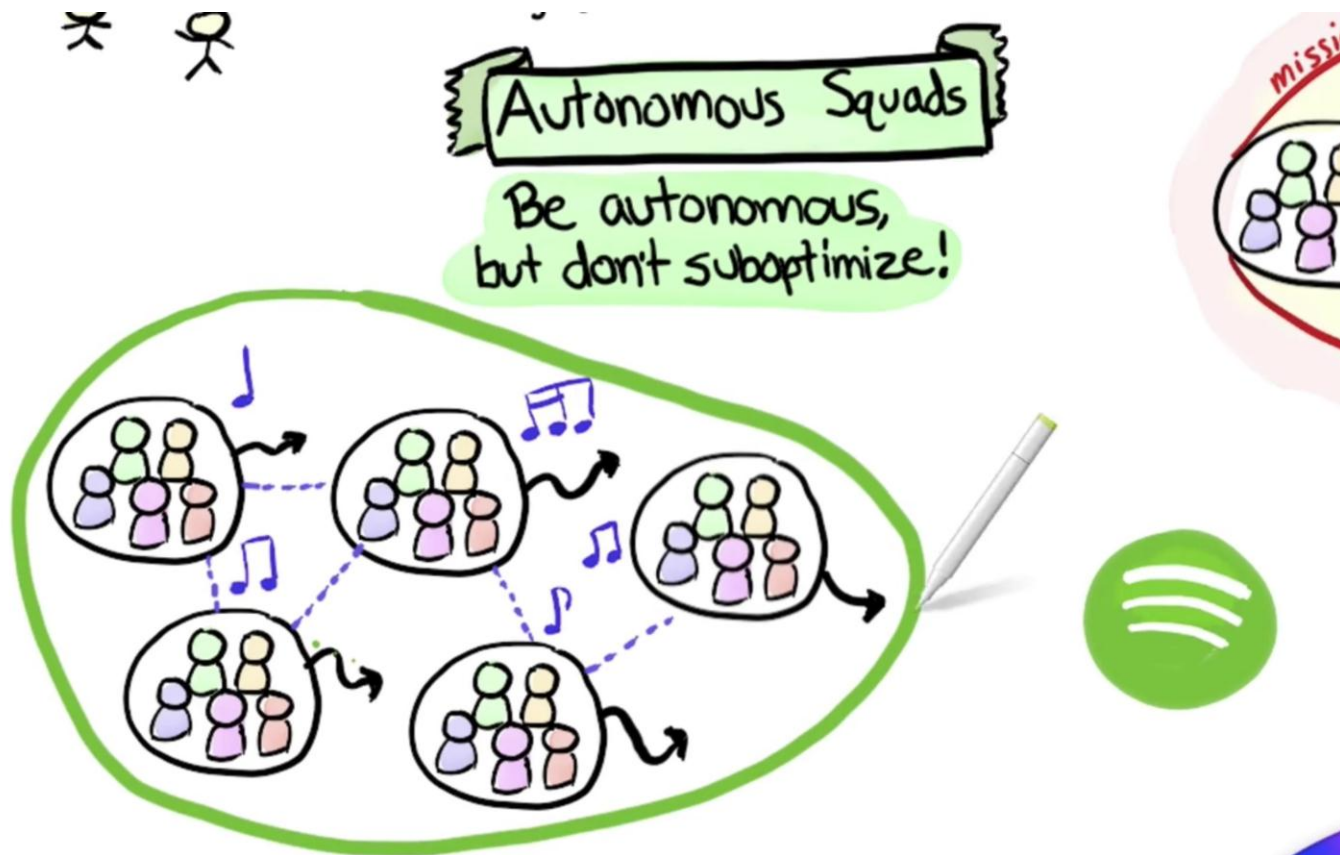
Do users tell others?



The Mobile App Customer Purchase Funnel Cheat Sheet



Growth Team



Product
Manager

Analyst/
Data Scientist

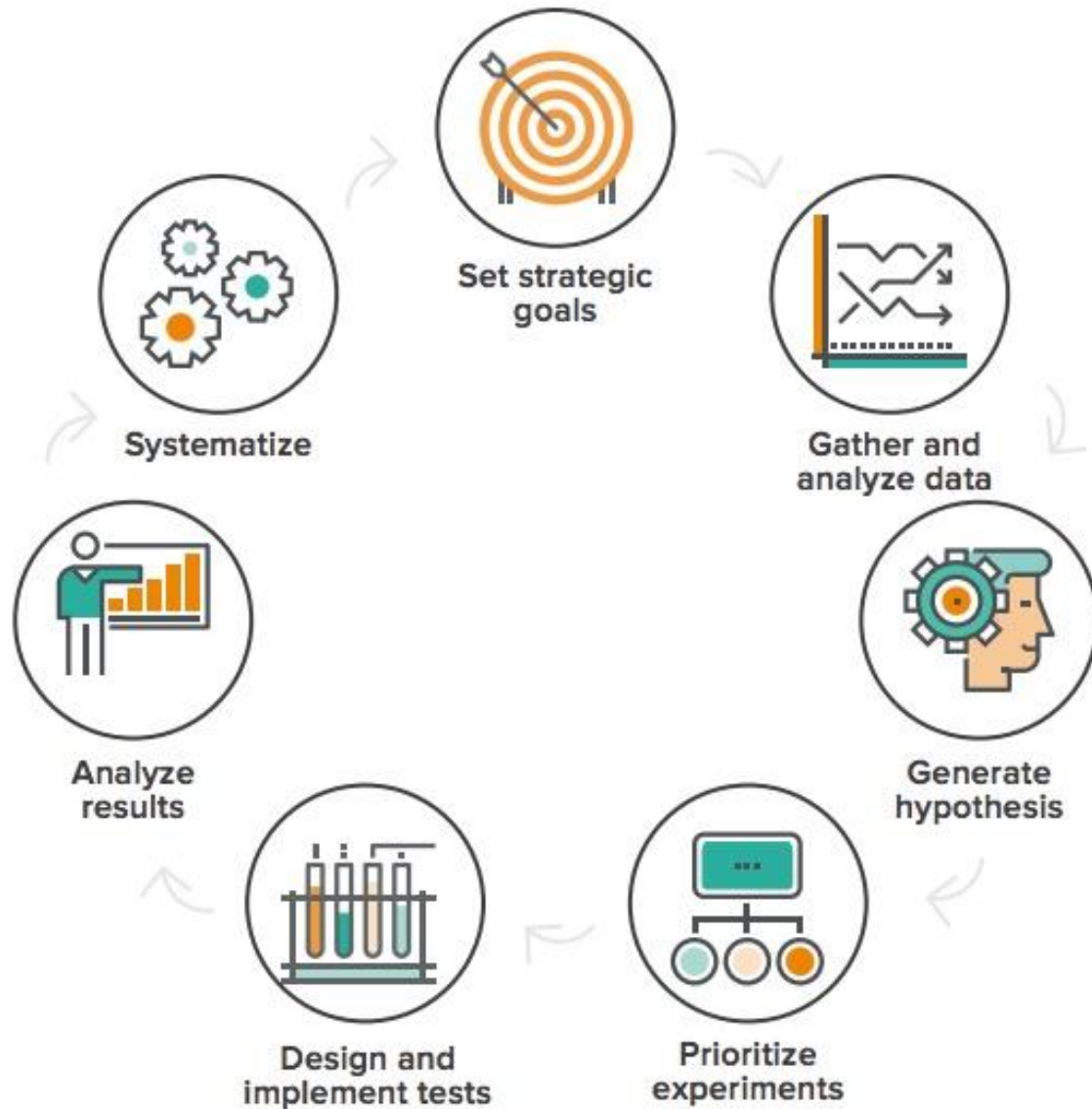
Developer/
Engineer

Marketing

Designer

Researcher

Growth Experiment Process



Experiment Design Components

Problem Statement

- *State which specific problem that you want to tackle to move the north star metric*

Hypothesis

- *If successful, **[variable]** will increase by **[impact]** because **[assumptions]***

Rationale

- *Baseline data*

Experiment Scheme

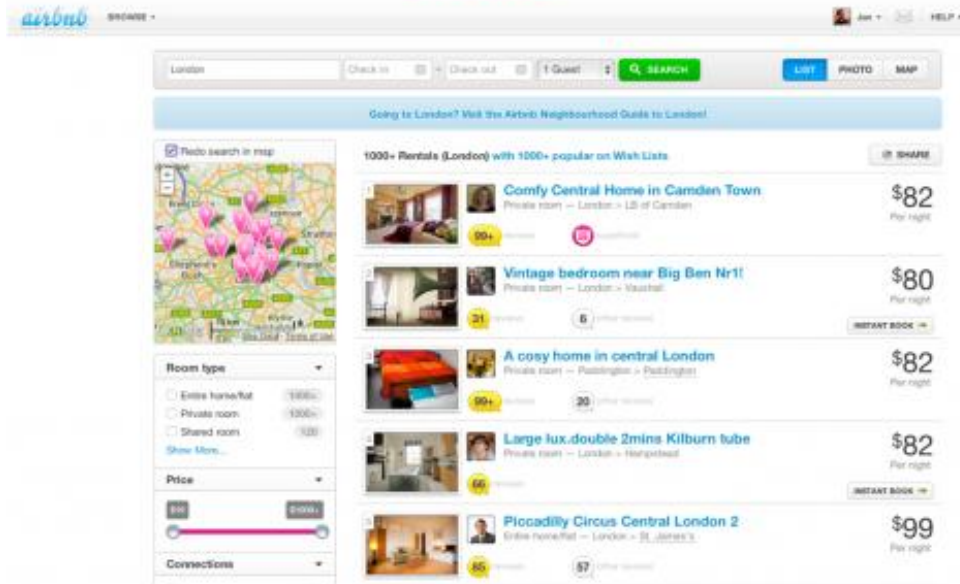
- *Detailed treatment information for the users*

Segmentation

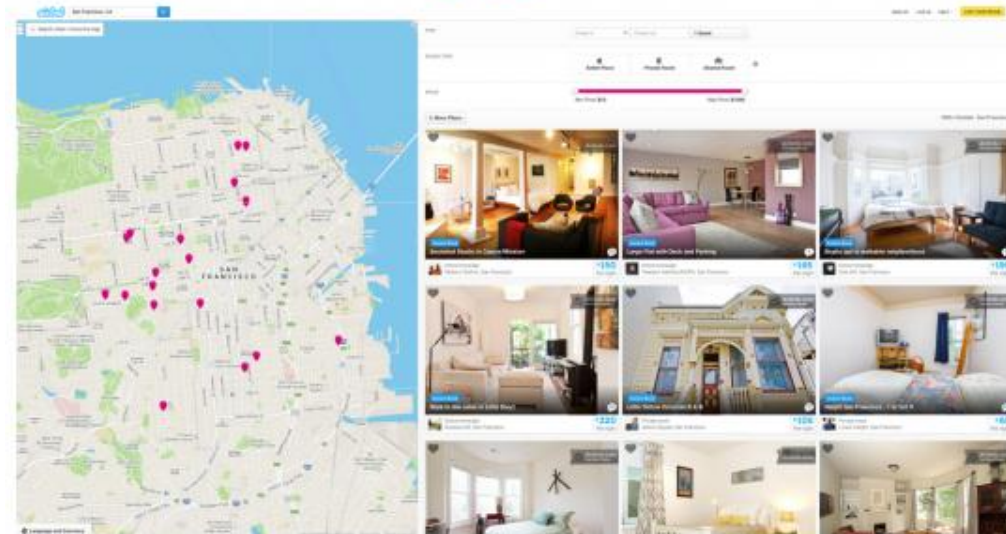
- *Criteria of targeted users*
- *Sample size*

AIRBNB SEARCH PAGE REDESIGN

Before



After



Background

Search is a fundamental component of the Airbnb ecosystem

Experiment

Emphasize on pictures of the listings (one of the assets since they offer professional photography to the hosts) and the map that displays where listings are located

Browser

Δ

p

All

-0.27%

0.29

Chrome

2.07%

0.01

Firefox

2.81%

0.00

IE

-3.66%

0.00

Safari

0.86%

0.26

Rest

-0.74%

0.33

App Store Optimization



Control



Variant - 1



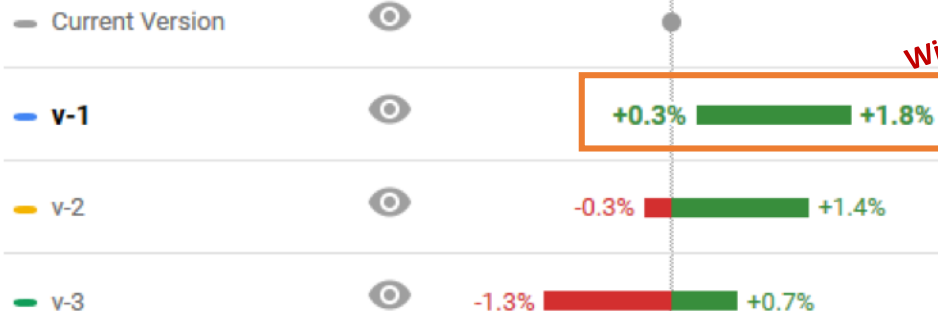
Variant - 2



Variant - 3

Variants

Performance ?
90% Confidence Interval



Background

Increase organic acquisition through App Store

Experiment

Experiment on Featured Graphic by adding "human" element in it

GO  PAY

Rp28.000



Transfer



Scan QR



Top Up



Home



GO-RIDE



GO-SEND



GO-PULSA



GO-CAR



GO-TIX



GO-FOOD



GO-POINTS



MORE

GO  RIDE
Going to Work



GO-RIDE got you covered!
Jl. Kerinci Raya No.31

[ORDER](#)

GO  FOOD
Nearby Restaurants

[See All](#)

Home



Orders



Help



My Account

Recommendation

Background

- Need to decrease the drop off from service selected to booking confirmed
- Increase users retention rate

Experiment

Offer one-click order button by predicting the user's order time based on their historical commuting behavior

Thank You

P.S: Yes, of course we're always hiring! bi-recruitment@go-jek.com