Software Product Management

Build, Measure, Learn & Pivot

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- Build   – Turn ideas into product
- Measure   – See how customers respond
- Learn   – What is valuable to customer
- Pivot or persevere

- Profile: Kate Arnold of Netflix (Inspired)
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- Case study: "Design Within Reach" (4 Steps to Epiphany)

Introduction

- Growth should be measured by the value it creates, not by the funding, amount of advertisement, etc. – Eric Ries of Lean Startup

- Financial valuation of a company may increased for different reasons – venture funding, lack of competition, etc.

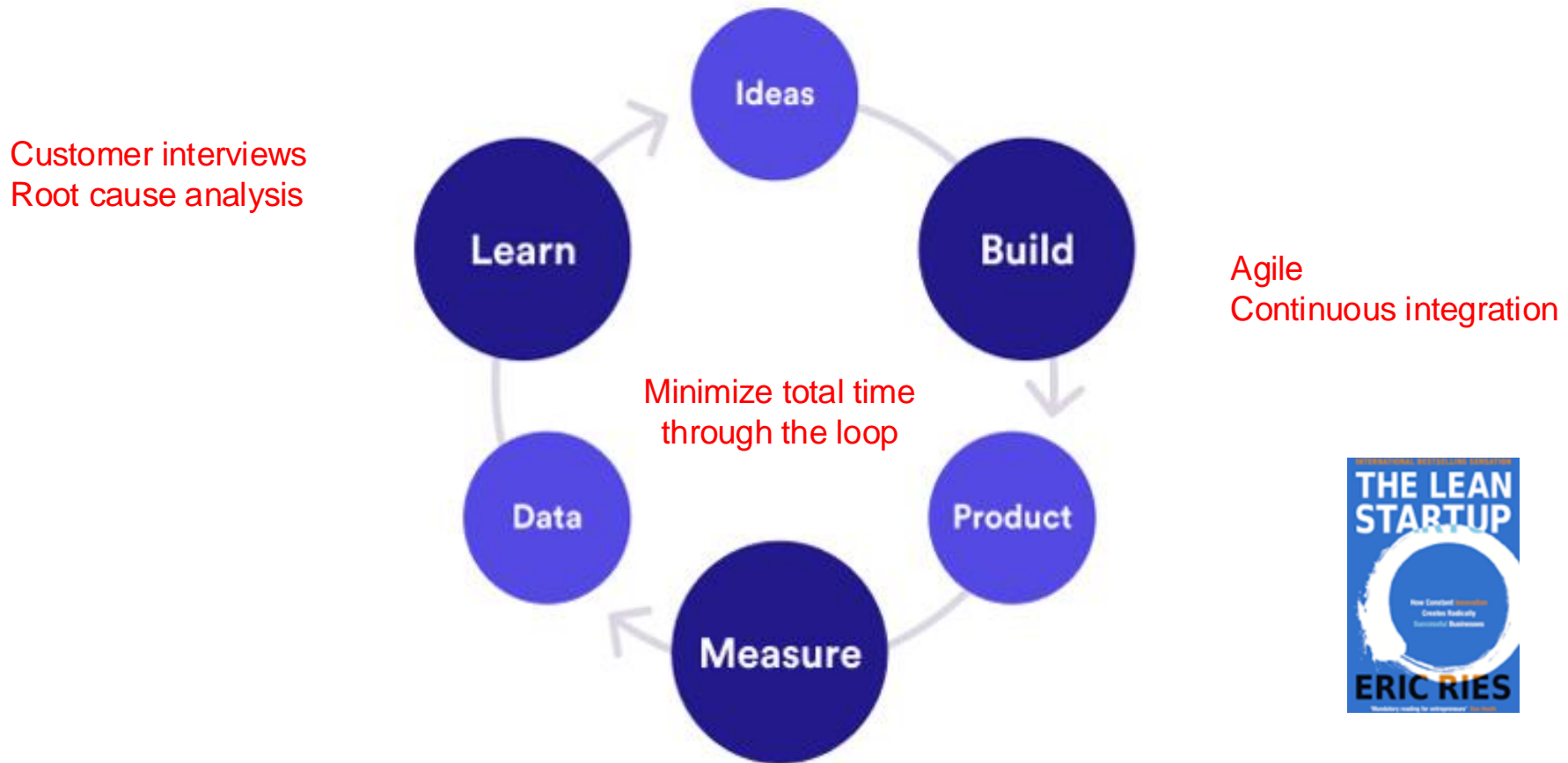- Real growth should be measured by the growth in value to customers

  Example:
  – Are ecommerce customers finding it convenient shop?
  – Are they finding the products they want?
  – Are the products delivered on time?

Build-Measure-Learn cycle

So we need to constantly learn what is valuable to customers

Customer interviews
Root cause analysis

Agile
Continuous integration

Minimize total time
through the loop

- # Visits, conversion, retention
- How many use new feature?

Build

Build the product with minimum features, yet bringing compelling value

Example: Bounce

Minimum feature:
- Book
- Unlock
- End ride
- Pay

Features that can be left out for now:
- Give feedback (assuming there is a call center)
- View bike model and year of manufacturing
- Frequent user analytics

Measure

Identify the right metric that indicates that customers are getting value from the product

Example:

- # of rides per day in case of Bounce
- # of messages / team in case of Slack

Eric Ries calls this as Innovation accounting (as opposed to accounting profit or review)

Measure …

A disciplined approach is needed to figure out if we are making progress through validated learning

Steps:

- Establish a baseline using real data based on MVP
    - Example: 20 rides per day during MVP
- Set a desired target: Reach a target of 100 rides in 3 months (based on certain assumptions)
- Tune the engine, ie. make optimizations (such as UI improvements or adjust price) and measure again to see the difference
- Pivot, ie. Make change to product feature or change target customer or some other change, if the desired outcomes are not met
    - Example: Provide helmet, Target delivery boys instead of Metro riders (based on a new hypothesis)

Growkit case (Lean Startup)

Farbood Nivi was a popular & effective teacher

He discovered that a combination of following approaches is needed effective teaching:

- Teacher led lecture
- Individual home work
- Group study (Peer-driven learning)

Growkit case …

Step1 :

- Used WebEx to teach (Teacher-led learning)
- Measured # of customers, # of questions answered, etc.
- Added new ways for students to interact with each other. Conducted split (A/B) test. But this did not improve customer behavior.
- Allowed lazy registration feature. Conducted split (A/B) test. But this also did not have any impact (Optimization)
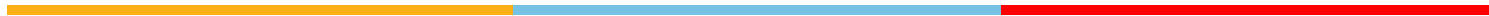
Growkit case …

Step2:

- They had missed implementing one important need: Choice of solo learning and group learning
- Introduced this feature and did A/B testing
- This led to significant increase in customer behavior

Experience sharing

Did you make any changes to the product to enhance value?

Importance of A/B testing

Do not add a feature unless A/B testing reveals value to customer

Metrics should be actionable, accessible, auditable

Actionable:

- We should be able to take some action based on the metric. Example:
- Consider 2 metrics in a gaming software
  - % of visitors who signed up for a gaming software
  - # of chat messages exchanged between players
- Signup % is actionable. If it is not improving, we can try to investigate and make changes
- # of chat messages exchanged: This metric is not a very actionable. We are not sure what action to take

Metrics should be actionable, accessible, auditable

Accessible:

- The metrics should be easy to understand. Eg. IMUV – a multi-player game
  - How many downloaded
  - How many used trial version
  - How many upgraded to paid version

# Metrics should be actionable, accessible, auditable

Auditable (verifiable):

- Sometimes when A/B test reveals that a feature is not impactful, some people who proposed the feature do not want to give up and start questioning the veracity (dependability) of the data.
- They say that the data collected may be inaccurate
- In such situations it should be possible to know which users preferred the new feature and who did not.
- Then we can do a random check by calling those people and validating the data.
- So we need to record customer names and contact details of customers who used the feature and who did not

Votizen case

- David Binetti started Votizen (he was earlier manager of USA.Gov)

- He wanted to tackle the problem of civic participation in the political process
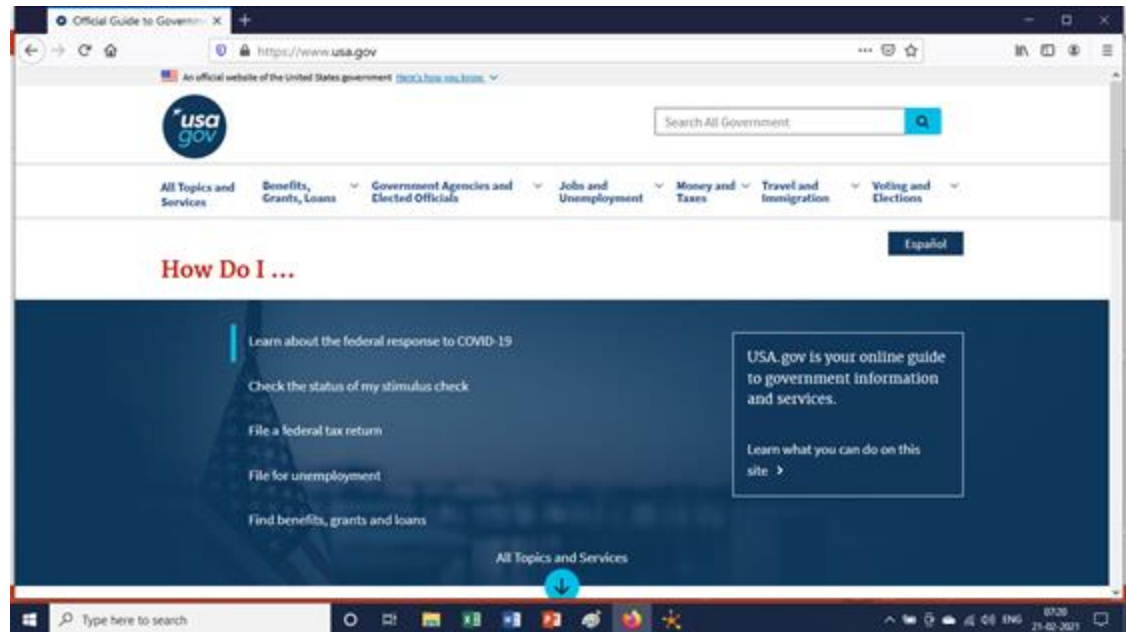
Votizen: MVP

- Hypothesis: People interested in civic matters would like to engage with other similar people

- Created a social networking platform for verified voters to get together, share ideas, recruit friends

- Only 5% signed up

- Tried to make it easier to use. Signup increased by 17% (used A/B testing)

- He did more optimization. But sign up remained at 17%. Which means the citizens were not getting much value.

- He had heard recurring feedback that citizens wanted to get more involved

- So he decided to change the strategy

Votizen: Pivot (Zoom In)

- New hypothesis: Passionate activists would be willing to pay for facilitating contacts with elected representatives
- Converted into social lobbying platform "@2gov" that enabled citizens to reach elected representatives
- Citizens would use existing social media platform such as Twitter to send message to @2gov and this message would be passed on to the elected representatives on paper since the politicians were less tech savvy
- Signup increased to 42% but people willing to pay was just 1%. Revenues remained low

Votizen: Pivot (Customer segment)

Hypothesis: Large org, non-profit org. and fund raisers who are interested in political campaigning would be interested to contact the elected representatives

- David contacted them and many signed LoI (Letter of Interest).
- After developing the product, org did not show interest in paying for it ,in spite of multiple follow up

Votizen: Pivot (Platform)

- Getting inspiration from Google AdWords platform, he converted the product into a self-serve platform for citizens to send message to elected representatives at 20 cents per message.
- Revenue increased significantly from 1% to 11%

Votizen: Quick iterations

1st MVP took 8 months

2nd   4

3rd   3

4th   1

Votizen: Lesson

- We should not get stuck on our ideas and replace the hypothesis based on new learning about the customer.

- The company could have got funding and survived but the value would not increase.

- That is why we must measure the impact of each change and decide if we should pivot or persevere with what we have.

Votizen: Achievements

- The company got a funding of $1.5 million from Facebook's initial investor Peter Thiel.

- **Startup Visa campaign used Votizen which resulted in the Startup Visa Act** (S.565).

- This was the first legislation introduced via social lobbying.

Types of pivots

- Zoom in: One feature blown up
- Zoom out: Many features combined into one as there is not much interest in so many features. Example
- Customer segment: Individual or Organization
- Customer need (through customer intimacy)
  - Eg. Pot Belly sandwich which started as an antique store (1977) gave sandwiches to customers to make them stay. But they found that customers like sandwiches more than antiques
- Platform pivot: A specific use application to a platform (like AirBnB)
- Channel pivot. Instead of selling a product via consulting firms, a company may decide to sell directly (SaaS).
- Business architect pivot: Low volume high margin to High volume low margin. Example Clinic shampoo Sachet
- Technology pivot: Same solution using different technology (eg mobile) this is used by large corp to improve their service.
- Engine of growth pivot: Viral, sticky or paid growth

Experience sharing…

What pivots did you use in your product to enhance value?

Pivot case study: Netflix

Netflix - Kate

1. What was the solution used by Kate to address the problem of customers not bothering to return the DVD?

2. How did they address the issue of needing to stock popular & expensive DVDs which were in high demand?

3. What can we learn about the role of Product manager from this story of Kate?

End-to-end Case study

Slack

What lessons can we learn from Slack in the area of:

1. MVP
2. Pivot
3. User vs Buyer
4. Identifying product features
5. Marketing & growing the market
6. Customer support
7. Strategy
8. Metrics & Analytics

End-to-end case study

Design within
reach

1. What was the pain point Rob was trying to address?
2. What was the MVP he used?
3. Why did Rob refuse to start e-com business?

Appendix