



Service Science  
UniMiB  
F9101Q022

Pivot or Persevere  
[mirko.cesarini@unimib.it](mailto:mirko.cesarini@unimib.it)

# Recap Previous Lesson(s)

- 3 Engines of Growth can be identified
  1. **Viral** engine
  2. **Paid** engine
  3. **Sticky** engine
- Each engine of growth should be viewed as an **analysis perspective**
- **More than one** engine of growth can work **at the same time**
  - Better to focus (and optimize) one engine at the same time
  - Trade-off among engines e.g., raising the service price may fuel Paid Growth but may harm the Viral Engine

# Innovation Accounting Overview

- (1) Create an **MVP** and select **metrics**
  - Metric matters. Without a clear-eyed picture of actual situation, progress cannot be tracked
  - **Identify the baseline** (the actual KPI values)
- Repeat several times
  - (2) **Tune the engine** from the baseline toward the ideal
    - Every strategy and or engine requires **tuning** before reaching **optimality**
    - Identify **target** and **deadlines** (i.e., learning milestones)
    - Several “Build-Measure-Learn Feed-back **loops**” to tune an engine of growth
  - (3) **Pivot or Persevere** i.e.,
    - Persevere if the company is making **good progress** toward the ideal (i.e., learning is effective)
    - Dilemma in case of continuous negative results (or not enough positive): **Pivot or Persevere?**
      - Are we on our way to optimality, despite results are still bad?
      - Should we change our way?

Introduced  
Today

# Votizen Case

- Entrepreneur: David Binetti
  - He helped build USA.GOV (official web site of the U.S.A. Government)
  - He also experienced some start-up failure
- Initial Idea
  - Tackle the problem of **civic participation** in the **political process**
  - **Social network** of **verified voters** where people passionate about civic causes could get together, share ideas, and recruit supporters
  - Chosen Engine of growth: **sticky** (people will engage for the long term)
- 4 Riskiest assumptions
  - **Registration**. Customers would be **interested enough** in the social network to sign up
  - **Activation**. Votizen would be able to **verify users as registered voters** in their specific district
  - **Retention**. Members would **engage** with the site's activism tools over time (i.e., to use the site **3 times** or more)
  - **Referral**. Engaged customers would **tell their friends** about the service and **recruit** them into civic causes

} Engagement<sub>4</sub>

# 1<sup>st</sup> Votizen MVP

- 1<sup>st</sup> MVP after 3 months and \$1'200 spent
- Data about an initial cohort →
- Not so bad results for the 1<sup>st</sup> attempt
- Although indicators are low, these (initial) data validate feasibility
  - **Registration:** (some) users are interested
  - **Activation:** succeed in verifying (some) users as registered voters
- Not enough data to evaluate **engagement** i.e.,
  - Retention
  - Referral
- Time to start iterating the Build-Measure-Learn-Feed-back

	Initial MVP
Registration	5%
Activation	17%
Retention	Too low
Referral	Too low

Each % is a conversion rate w.r.t. the previous step

# Baseline

- These values → are the baseline
- Next step: improve service and improve metric results
- Identify Learning Milestones
  - E.g., in 6 months activation should reach X% and retention should be no less than Y%
  - What will you choose as X and Y?
- Results are frequently bad at the very beginning, each MVP and Engine of growth requires tuning activities

	Initial MVP
Registration	5%
Activation	17%
Retention	Too low
Referral	Too low

# Optimization

- After 2 months and \$5'000 spent for
  - split testing new features
  - improve design, and
  - to make the product easier to use
- Big improvement in Registration and Activation
- Some more split testing
  - 8 Months and \$20'000 later
  - Small improvements
    - Retention 8%
    - Referral 6%
- In your opinion, does the **Sticky** assumption hold?

	Initial MVP	After Optimiz.
Registration	5%	17%
Activation	17%	90%
Retention	Too low	5%
Referral	Too low	4%

# Considerations

- Users are increasing
- However, Retention assumption doesn't work
  - Churn rate too high
  - $CR = 1 - \text{Retention}$

	Initial MVP	1 <sup>st</sup> Round of Optim.	2 <sup>nd</sup> Round of Optim.
Registration	5%	17%	17%
Activation	17%	90%	90%
Retention	Too low	5%	8%
Referral	Too low	4%	6%

- Actual situation: **“stuck in the land of the living dead”**
  - Vanity (gross) metrics look like good
    - e.g. # total users keeps increasing, since  $\text{Registration} > 0$
    - However it is a dangerous situation:
      - Ok to stay alive in the short term
      - Engine of Growth not working. Not sustainable in the long term
- If the founder hadn't used MVP and Actionable metrics, the problem would have gone **unnoticed** (i.e., not so clearly and quickly detected)



# Pivot or Persevere?

- What to do?
  - **Persevere**: iterate the Build-Measure-Learn-Feed-back Loop
  - **Pivot**:
    - is a change of goals and/or strategy, ...
    - ... but rooted in what has been learned so far
    - i.e., a pivot takes advantage of the knowledge gained in previous activities
- Pivot(ing) is a hard decision
  - Entrepreneurs are always reluctant before
  - But (after) they wish they did it sooner
- Pivot may require to **rework** the **MVP**
  - If the MVP is minimal, the effort is low
  - The **sooner knowledge** is obtained, the sooner the need for a pivot is identified, the **less** will be the **rework**

# Decision made: Pivot

- Votizen consideration: the actual strategy is not working (despite several optimizations)
  - Data suggest that an assumption doesn't hold
  - The founder decided to pivot and test a new hypothesis
- Every Pivot is rooted in the acquired knowledge. Some user interviews:
  - “I always wanted to get more involved; this makes it so much easier.”
  - “The fact that you prove I'm a voter matters.”
  - “There's no one here. What's the point of coming back?”
  - Retention: 8%
  - Referral: 6%
- Summary: customers like the concept but they give no value to the social networking part of the product
- How do you suggest to pivot (i.e., how to change strategy)?

# 1<sup>st</sup> Pivot: @2gov

- The founder decided to change Votizen into a product called @2gov
  - @2gov allows its members to contact their elected representatives quickly via social networks e.g., Twitter
  - The customer engages digitally ...
  - ... but @2gov translated the digital contacts into old-fashioned printed letters and petitions for Congress Members
- Since Petitioners were all registered voters, their opinions matter for Congressmen

# @2gov Assumptions

- Assumptions
  - Customers signing up and verifying voter status as Previous product (now is beneficial the knowledge previously gained, and the infrastructure previously built)
  - The engine of growth changed
    - Hypothesis: **passionate activists would pay** to get contacts with people caring about their issues
    - New Engine: Paid growth
- New MVP, after 4months and \$30'000
- Resource expense summary from the beginning of the work: 12 months and a grand total of \$50'000

They are not lobbyist

# @2gov Metrics

- Assumptions
  - Registration: ok
  - Activation: ok
  - Retention: ok
  - Referral: ok
  - Economics (new assumpt.) ...
- Huge value changes. Good sign of a well-done pivot
- Even if tuning might still be required, values changes dramatically
- Unfortunately, one assumption is not ok
  - # activists willing to pay: only 1%
    - Payment of a service fee
  - It is not enough to sustain growth
- Call for another pivot

	Before Pivot	After Pivot
Engine of growth	Sticky	Paid
Registration	17%	42%
Activation	90%	83%
Retention	8%	21%
Referral	6%	54%
Paying Cust.	n/a	1%

Each % is a conversion rate w.r.t. the previous step

# 2<sup>nd</sup> Pivot: Campaign Tool

- 2<sup>nd</sup> Pivot: customer target change
  - People or **organizations** having a **professional** or business **interest** in political **campaigning** e.g., large organizations, professional fundraisers, big companies
  - A lot of **companies signed letter of intents**
  - The functionalities required by new customers were built
- New Build-Measure-Learn-Feed-back Loop

# 2<sup>nd</sup> Pivot Results

- Unfortunately
  - (To make a long history short)
  - Companies **refused** to **purchase** services at the very end (even if they signed letter of intents)
  - Companies were afraid of investing large quantity of money in this new service. Those companies were not early adopters
- Summary: it didn't pay switching focus from people to organizations

# Dilemma

- What to do now?
  1. Persevere
    - Keep looking for (paying) customers
    - Beware
      - After the letter of intent, people have been hired in prevision of future peak of work
      - Company was rapidly consuming cash (new hiring not balanced by purchases)
  2. Pivot again
- What will you do?
- Impossible to raise further money from investors with no (proved) long term sustainability



## 3<sup>rd</sup> Pivot

- Staff was reduced
- Idea: Small fee: \$0.20 per messag.
  - Anyone can become a customer using a credit card ...
  - ... and send messages to find supporter for her/his cause
- Additional oxygen: 11% of paying customers was enough to collect further funding
- In your opinion, which is now the engine of growth?
  - Suggestion: very few customers can be bought with a \$0.20 fee
  - Hint (missing info): # invitations sent per existing referral user

	Before	After
Registration	42%	51%
Activation	83%	92%
Retention	21%	28%
Referral	54%	64%
Paying Cust.	1%	11%

# 3<sup>rd</sup> Pivot: Engine

- New engine of growth: Viral
- **Focus on Retention(ed) customers** (i.e., the ones that remain engaged)
- Viral Coefficient? How many new retention(ed) customers will be brought by an existing retention(ed) one?
  - **IR**: (average) # invitations sent per existing referral user = 20
  - **CR**: The conversion rate can be guessed by the table i.e.,  $CR = (64\% * 51\% * 92\% * 28\%) = \text{about } 8\%$
  - (reminder) **VC** (viral coef.) = (# invitations sent per existing-user) \* (% conversion rate)
- $VC = IR * CR = 20 * 8\% = 1.26$
- This exponential growth, no need to pay for new customers
- Important finding:
  - The Viral Engine is frequently related to free services
  - Validated learning allowed the company to understand that, in this scenario, **a small fee is suitable with the Viral Engine of Growth**

	Before	After
Registration	42%	51%
Activation	83%	92%
Retention	21%	28%
Referral	54%	64%
Paying Cust.	1%	11%

# Time Considerations

- MVP Acceleration: each time, hypothesis were validated faster than before
  - Even if modifying previous MVPs required extra work
- Each MVP
  - started from previous obtained knowledge
  - learned some more critical concepts about customers, market, and strategy
- Votizen further history
  - Raised about \$2 million of funding
  - Was later acquired by Causes (purchase price not disclosed)

MVP	Months
1 <sup>st</sup>	8
2 <sup>nd</sup>	4
3 <sup>rd</sup>	3
4 <sup>th</sup>	1

1<sup>st</sup> Pivot

2<sup>nd</sup> Pivot

3<sup>rd</sup> Pivot

<https://techcrunch.com/2013/01/10/causes-acquires-votizen/>

# Start-up Runway

- Left runway: time remaining either to lift-off or fail
  - Remaining months: remaining cash / monthly expenses
- Time can be extended
  - Raising additional funds
    - Not easy, unless you can demonstrate business sustainability
  - Cutting costs (beware not slowing down the Build-Measure-Learn feedback loop)
- A different perspective
  - A startup's runway is the number of pivots it can still make
  - How to prolong runway? Get to each pivot faster
    - i.e., achieve the same amount of validate learning faster
- Pivots require courage
  - Vanity metrics allows entrepreneurs to live in their own private reality
  - But entrepreneurs who decided to pivot often say they wish they had done it sooner