



Service Science
UniMiB
F9101Q022

Pivot or Persevere

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**
 - Metrics matter. 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

1st Votizen MVP

- 1st MVP after 3 months and \$1'200 spent
- Data about an initial cohort →
- Not so bad results for the 1st 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 iterate the Build-Measure-Learn Feed-back Loop

	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 st Round of Optim.	2 nd 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?”
 - Max Achieved Retention: 8%
 - Max Achieved 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)?

1st 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

2nd Pivot: Campaign Tool

- 2nd 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

2nd 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

3rd Pivot

- Staff was reduced
- Idea: Small fee: \$0.20 per message
 - Anyone can leverage the platform 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%

3rd 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 st Pivot	1 st	8
2 nd Pivot	2 nd	4
3 rd Pivot	3 rd	3
	4 th	1

<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