



Service Science

UniMiB

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Knowledge Issues in
uncertain Scenarios

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The Pets Case

- The ***** company was created to sell pet food and accessories on-line, in 1998.
- Strategy:
 - Building brand recognition
 - Get Big Fast (GBF) i.e., focus on enlarging the customer base
- The company collected a lot of money from investors
 - They created their own logistic infrastructure
 - Aggressive advertisement campaign
 - Local TV and Radios
 - The Sock Puppet Company Mascot became very famous
 - American Super Bowl Advertisement
 - Aggressive pricing (below-cost)



Strategy

- Get Big Fast Strategy
 - Several .com company followed this strategy e.g., amazon.com
 - KPI to monitor
 - # user registration
 - # purchases
 - ...
- Brand recognition
 - Everybody was talking about the company
 - Several advertisements awards
- The company user registrations skyrocketed
- The site was hit with traffic as people began to place orders
- A month later the super bowl advertisement, the company raised over \$80 million dollars in its IPO (Initial Public Offering)

Even better

- The company succeeded to purchase its biggest online competitor at the time too
- They got amazon.com on board as an investor ...
- The management was using a well known success strategy
- You might expect a very happy ending

The End?

- The company is pets.com
- It was referred as one of the greatest dot-com disasters in history
<https://www.cnet.com/news/pets-com-latest-high-profile-dot-com-disaster/>
- 268 days after Initial Public Offering the company went to liquidation (November 2000)
- What was wrong?

Main Problem: Sustainability over Time

- Business model not sustainable over time
 - Low profit margin sector (2% to 4%)
 - Not enough to cover the delivery costs
 - Strong competition from local grocery stores
- Management failed twice;
 - neither they obtained useful insights in advance (e.g., market research or expert advices). Pet market was a well known business
 - nor they **recognized the problem at run time** (before ending resources). More on this topic later

Problem Root Cause

- (Very) wrong approach
 - creating products and services in a state of **isolation** and ...
 - ... **later** task marketing and sales teams to **identify customers**
- Some questions to be answered before (or during) product design, not after:
 - are there any **needs** or **problems** that people are facing?
 - how **many** of these **people** are there?
 - would they actually **pay** for something that meets their needs?
 - are **competitors** already serving those needs?
What can they do to offer a more compelling proposition?
 - can the revenue **sustain** the business?

(Possible) Alternative Approach

- To focus on one or few specific market segments where higher prices may pay for delivery costs
 - This is a well known marketing/strategy approach
 - Main steps
 - Customer segmentation (i.e., to identify customer segments and specific features)
 - Targeting (i.e., identify segments to focus on)
 - Positioning (...)
- Later, some more segments can be added
- E.g., amazon.com successfully used this approach

(Focus on Market Research)

- Market analysis can be useful
 - It is not a silver bullet
 - results must be carefully interpreted
- Market analysis might be misleading in (very) innovative scenarios
 - Customers don't really know what they want
 - There is a famous quote (somewhat dubiously) attributed to Henry Ford: "If I had asked people what they wanted, they would have said faster horses."
<https://www.forbes.com/sites/forbesfinancecouncil/2017/10/19/on-building-a-faster-horse-design-thinking-for-disruption/#18234dd849f9>
<https://www.entrepreneur.com/article/290410>
- Neither entrepreneur/service designer/... are better (BlackBerry's Famous Last Words At 2007 iPhone Launch)
<https://www.forbes.com/sites/parmyolson/2015/05/26/blackberry-iphone-book/#2562764963c9>

(The Innovator/Entrepreneur Role)

- Considerations
 - If the answer is "yes" to each of the previous questions (... are there any needs not actually addressed by competitors that the customer will pay for ... [sustainability]...) ...
 - ... it is very likely that someone else is already in the business
- The innovator/entrepreneur role is to discover how to turn some *no* into *yes*
 - but she/he must be aware of the actual situation and challenges
 - the sooner she/he realize the problems/challenges the better is

The pets.com very important Error

- How to quickly recognize problems at run-time (before ending resources)?
- Important suggestion: focus on the underlying assumptions
 - **Identify** the **assumptions** underlying your business model
 - **Validate** them as soon as possible! Assumptions haven't been proved to be true (they are assumptions, after all)
- Pets.com assumptions. What is your opinion?
 - pet owners **want to buy online** and knew how to (in 1998)
 - people are happy **to wait a few days**, rather than just driving down to the local shops
 - the overall business is **sustainable**

Customer Behavior Models

- AIDA model describing the people purchase process (Awareness -> Interest -> Desire -> Action)
- The pets.com massive marketing campaign had certainly generated **a lot of Awareness** and **some Interest**
- But it wasn't translating into sufficient **Desire** and certainly not to enough **Action**
- Later
 - not enough people were ordering products and
 - those that did were ordering only small amounts
- The selected KPI (Key Performance Indicators, see previous lesson) delayed the AIDA issues identification (more on next slide)

Focus on KPIs

- The KPIs selected by the management were
 - # of user registration (per time)
 - # of purchases (per buyer, per time)
- High scores at the beginning. Main issues:
 - # of user: focus on interest rather than desire/action
 - # of purchases were measured in a below-cost-pricing scenario
- Neglected questions:
 1. when below-cost-pricing end, will existing **customers keep buying?**
 2. **will customers keep increasing** once finished the massive advertisement?
- What can you do? ... [open discussion]

Business sustainability over Time

- Revenues should be high enough
 - not only to cover costs of produced goods
 - but also to cover growth costs e.g., advertisements. We will come back to this topic in a next lesson
- Another Problem: the company invested in huge warehousing
 - This was a fixed cost that could not be avoided (in 1998 there was no logistic platform available)
 - It made a serious dent in the sales profitability
- More information on pets.com case

<https://brainmates.com.au/brainrants/pets-com-a-classic-example-of-product-development-failure/>

Start-up Definition

Service and Data Entrepreneurship

Start-up Definition

- “A start-up is a **human institution** designed to create a **new product or service** under conditions of **extreme uncertainty**”

Ries, Eric. The Lean Startup. The Crown Publishing Group

- Learning is the most vital function of organizations building under conditions of extreme uncertainty
- E.g.,
 - Learn about which **elements of a strategy are working** and which not
 - Learn what **customers really want**, not what they say they want or what we think they should want
 - Discover whether the organization is on a path that will lead to growing a **sustainable business**

Learning Goal

- Start-up learning goal
 - Discover how to perform a sustainable (long term) business model
 - Sustainable business
 - To provide value to Customers
 - ... and to Stakeholders
 - Long lasting (e.g., longer than initial aggressive advertisement Campaigns)
- Value or Profit?
 - In the above definition **Value** could be replaced by **Profit**
 - However Value is more general, it encompasses also
 - Not-for-profit scenarios,
 - Public sector activities
 - Any scenario where the value is not straightly related to monetary aspects

Terminology

- Hereafter, “start-up scenario” will be used to refer to each project framed in (highly) uncertain scenario
 - independently whether it is carried out in a “young” company or
 - a “mature organization” or
 - a combination thereof



A successful Case

Consumer Financial Protection Bureau

CFPB Case

- The Consumer Financial Protection Bureau federal agency (CFPB) was created on 2010 in the U.S.A.
- Tasked with protecting American citizens from predatory financial services (e.g., excessive interest rates on credit cards, student lenders, and payday loans)
- The agency obtained \$500 million budget and a large staff

CFPB Assumptions

- Assumptions
 - The citizens will contact the agency, once they will know about CFBP
 - A list of (early) problems to address
- Questions
 - What if abused people don't view themselves as victims and therefore don't seek help?
 - What if people have very different notions of what problems are important?
- Once the agency is up and running country-wide, altering the plan drawn upon the assumptions will be expensive and time consuming
- How to validate the assumptions in advance?
 - Interacting with real "customers"
 - But without the effort of setting-up a country-wide organization

CFPB Experiment

- The CFPB Created a simple hotline number,
 - Using a service provider (e.g., www.twilio.com)
 - Few hours' work
 - Simple voice prompts (nothing more)
 - A menu of financial problems to choose from
 - In the first version,
 - Pre-recorded message with useful information on how to resolve the specific problem
 - No caseworkers (i.e., real people answering)

CFPB Experiment 2

- The agency started with a small geographic area (few city blocks) instead of marketing the hotline to the whole country
 - Highly targeted advertising
 - Since the target area is so small
 - An intensive marketing campaign was carried out to create a high level of awareness
 - The total cost would remain quite small

CFPB Further Experiments

- The knowledge acquired was very valuable
 - Percentage of people actually calling w.r.t. population (in the target area)
 - The extrapolation is not perfect
 - But it is a baseline far more accurate than market research
 - Menu selection statistics
 - figure out what kinds of problems citizens believe they have, not just what they “should” have
 - Segmenting and prioritizing people problems (e.g., credit cards)
- Then, the agency could engage in a continuous process of improvement
 - Managing some more problem categories
 - Eventually, staff the hotline with real people (caseworkers), starting from specific problems