Customer Segments, Product-Market Fit & Market Assessment

Medical Technology Commercialization Bootcamp
Carla Pavone, Ph.D.
The Fundamental Problem of New Products/Startups
What Happened?
Why?
Why?
Better is Not Enough*

- Government regulations require evidence that new products not only do what’s claimed, safely, but also are **cost-effective relative to competing products**

- The innovator must work with insurers regarding **eligibility for reimbursement**

- Industry players may have **contradictory interests and different time horizons**: physicians, hospitals, insurers, group purchasing organizations

- Innovators tend to be **infatuated with their own gadgets** and blind to competing ideas. While an innovative product may offer an effective treatment that would save money, particular providers and insurers might prefer a completely different technology

*Why Innovation in Health Care is So Hard, Regina Herzlinger, Harvard Business Review, May 2006*
Identifying & Understanding Customers
Who is the customer?
Generic Customer Roles*

Multiple Healthcare Purchase Roles*

* The New 5 Ps of Healthcare Marketing, Chris Mycek blog, posted January 2015
Players’ Generic Roles Vary Depending on the Purchase Decision
Product-Market Fit
The Lean Launch Pad Approach

• Bound uncertainty quickly and relatively inexpensively
  – Primary market research
  – Experimentation
  – Staging
  – De-risking
• Initial focus: product-market fit
  – Value propositions to specific customer segments
• Then: overall business model
Business Model Canvas: The Big Picture

9 Components:

1. Key Partners
2. Key Activities
3. Key Resources
4. Value Propositions
5. Channels
6. Customer Relationships
7. Customer Segments
8. Revenue Streams
9. Cost Structure
Product/Market Fit
1. Value Propositions

"It's not about your idea or product!"

It's about solving a need or problem.

It's about satisfying a customer need.

Hear you...

Yay! I'm delighted!

...and V
2. **Customer Segments**

Your customers do not exist to buy. You exist for them.

- **Who** are they?
- Why would they buy?

**Customer Archetype**

- Geographic
- Social
- Demographic

- 24 years old Male City dweller
- Single
- Social media user
customer jobs*

what customers are trying to get done in their work and in their lives

task to perform, problem to solve, needs to satisfy

* From “How to Create Compelling Value Propositions”, by Osterwalder
customer pains

describe bad outcomes, risks, and obstacles related to customer jobs
describe the more or less expected benefits the customers are seeking
Customer Segments Canvas

- **Multi-Sided Market**
  - Patients
  - Providers
  - Device Manufacturers
  - 3rd Party App Developers
  - Researchers

**Gains**
- Reduces the guesswork
- Novel features that appeal to providers and/or patients
- Accelerated approval process
- Reach to a broad audience
- Ability to minimize the work required by the user to use the software
- Access to patient data

**Pains**
- Keeping a log book
- Scattered, absent, insufficient, and uncontextualized patient data
- Must appeal to providers to sell to patients; create data management software; FDA process
- Device data is restricted in closed databases
- Expensive and time consuming to design and execute a study for the purpose of patient data collection

**Customer Job(s)**
- Keep blood sugar in target range and when it doesn’t, record what happened; make therapy adjustments
- Review patient data, identify worrisome patterns, and adjust therapy
- Design, build, and sell devices
- Build software that engages people with diabetes
- Identify valuable information across the population of people with diabetes

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From Steve Blank life sciences Lean LaunchPad blog posting
products & services

A list of all the products and services a value proposition is built around
pain relievers

describe how your products and services alleviate customer pains
gain creators

describe how your products and services create customer gains
Value Proposition Canvas

Multi-Sided Market

Patients

Providers

Device Manufacturers

3rd Party App Developers

Researchers

Products & Services

Software that makes it easier to get and interpret diabetes data
Software that makes it easier to get and interpret diabetes data

Gain Creators

FDA approved open data platform & hosting services
FDA approved open data platform & hosting services

Pain Relievers

Custom extractions from the world’s largest contextualized diabetes data set
Making it possible to see all of my data in one place
Making it possible to see all of my data in one place

Real-time decision support for insulin dosage decisions (bolus and basal)
Saves time and effort in the clinic and improving focus on therapy effectiveness with integrated data and UX
Developers build great software that increase appeal of our devices
Interoperability with dozens of devices and apps, representing millions of patients. Removes a huge barrier to user adoption.
Easy one-stop access to all research data needs

* From Steve Blank life sciences Lean LaunchPad blog posting
New Value Proposition Canvas

Two-Sided Market

Products & Services
Software that makes it easier to get and interpret diabetes data

Gain Creators

FDA approved open data platform & hosting services

Pain Relievers

Making it possible to see all of my data in one place, wherever and whenever I want to

Real-time decision support for insulin dosage decisions (bolus and basal)

Persistent peace of mind that your child is ok or real time alerts when your child is in danger

Faster time to market and broader device appeal

Great software and UX people don't want to work at my medical device company

* From Steve Blank life sciences
Lean LaunchPad blog posting
10 Characteristics Of Great Value Propositions

1. Are embedded in great business models
2. Focus on the jobs, pains, and gains that matter most to customers
3. Focus on unsatisfied jobs, unresolved pains, and unrealized gains
4. Target few jobs, pains, and gains, but do so extremely well
5. Go beyond functional jobs and address emotional and social jobs
6. Align with how customers measure success
7. Focus on jobs, pains, and gains that a lot of people have, or that some will pay a lot of money for
8. Differentiate from competition on jobs, pains, and gains that customers care about
9. Outperform competitors substantially on at least one dimension
10. Are difficult to copy

Disappointed by the failure of a good idea? Value Proposition Design helps you systematically build products & services that customers want!
Designing Product-Market Fit: Customer Development
Customer Development Drives The Planning Process

Iterate and pivot until you have (in)validated your product-market fit
“Get Out of The Building!!!”

- Secondary research is a starting point
  - Necessary, not sufficient

- Primary research is paramount
  - Customer interviews
  - *In situ* observational studies
Hypothesis Testing
Varies With The Nature of the Product

Mininal Viable Product

"This isn't what I wanted!"

Because customers didn't have input, many products were made that didn't satisfy customers' wants and needs.

Waste!

1. Build the minimum features in order to get feedback.
2. Quickly and iteratively get customer feedback.
3. As you get more feedback, you can add more features.
Customer Development is Iterative
Market Assessment
How many need XXXX?

- 1,000,000 people have YYYY
- 65,000,000 baby boomers and 28% of them have YYYY = 18,200,000
- YYYY worsens with age
- 50% of women baby boomers have YYYY

Who are the customers?

- Innovators will be the first to buy
  - Baby boomers & others who are experiencing significant discomfort
  - Those who want an active lifestyle
  - Those who have characteristics of innovators – buy new products soon after introduction
  - Those who don’t want surgery
A More Rigorous Approach

• **Top-Down (From Secondary Research)**
  – Size of total market
  – Size of “addressable” market
  – Market trends
  – Competitive analysis

• **Bottom-Up (Grounded in Primary Research + Projections)**
  – “Beachhead market” size (initial segment)
  – Likely rate of penetration of beachhead & subsequent segments
An Abbreviated Example

Market Summary
- 1.6M registered nonprofits in the US represent about 5.5% of GDP (and growing)

Market Summary
- The growth in the nonprofit sector is evidenced by the percent change in number of employees compared with the government and business sectors.

GoodLinks will target the three largest subsectors of this industry: Healthcare, Education, and Volunteerism organizations.

- Healthcare
  - 50% of sector’s expenses, 25% of assets, Complicated and growing operational requirements

- Education
  - 15% of sector’s expenses, 19% of assets

- Volunteerism
  - Highly visible, Highly impactful projects
A Different Example of a Projection

**Timeline & Projections**

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<td>Total Mattresses Sold</td>
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<td>Total Revenue</td>
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<td>EBITDA</td>
<td>$(122,000)</td>
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<td>Profit Margin %</td>
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**Graph**

- **Revenues**
- **Oper. Exp.**
- **EBITDA**

**Yearly Breakdown**

- 2013: Pre-Market
- 2014: Begin Sales Effort to Regions
- 2015: Hit $1MM in Sales during 2014
- 2016: Begin Expansion efforts
- 2017: Begin Regional & National Growth Plans
Market Assessment Resources