Introduction to Lean Start-up

David Mantica
President
ASPE
Presentation Agenda

- Product Theory 101
- What is Agile
- Fundamentals of Lean
- Definition of Lean Start-up
- Lean start-up model overview
- Stage gate vs Lean start up
- Details on Lean Start-up
- Fundamentals of start-up
- Team dynamics necessary for Lean Start-up
- Lean Start-Up books
Presentation Objective

Learn the fundamentals of Lean Start-up and gain practical real-world examples on how it is conducted.
Product Development Theory
Three Critical Elements in Product Creation

Value Creation

Organizational Capability

Competitive Understanding

Source: Rebecca Henderson, Professor, Sloan School of Management, MIT
What is Value Creation

How do you create value?
What is Organizational Capability?

Do we have the organizational capabilities to deliver it?

*Do we have the right audience in our databases?*

*Do we have the sales model?*

*Do we have the human resources needed?*
What is Competitive Understanding

Can we capture business in the face of competition?

*What are others doing?*
S-Curve Model: Product Lifecycle

Source: Rebecca Henderson, Professor, Sloan School of Management, MIT
Edison Product Factory—ASPE example
Diversity of inputs to build ideas and using core revenue to fund new ideas

- Keyword Impressions
- Competitive Research
- Evaluation data
- Customer call backs
- Focus groups, direct customer interviews
- Surveys
- Vendors
- Trade publications
- Owned Database Makeup

Information Processing

Idea
- False positives
- False negatives

Testing in the open market
Agile Manifesto, new way of working

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

- **Individuals and interactions** over processes and tools
- **Working product** over comprehensive documentation
- **Customer collaboration** over contract negotiation
- **Responding to change** over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

*It is a push for people over process & systems*
*It means major change for attitude and prospective and working*
*Behaviors and Actions must change*

http://agilemanifesto.org
What is Lean?

• The core idea is to maximize **customer value** while minimizing waste.
• A lean organization understands customer value and focuses its key processes to continuously increase it.
• The ultimate goal: provide value to the customer through a value creation process that has zero waste.
• Optimize the Whole
Lean Concepts

• Relentlessly eliminate anything that isn’t adding value
• Eliminate time spent on what “we know” we’ll need in future
• Eliminate inefficient ways of working
• Optimize the whole system
• People doing the work know best how to do it
• Mapping processes and improving
• WoMBaT: Waste of Money, Brains, and Time

Lean Start-Up takes a lean thinking approach to developing new products.
What is Lean Startup?

- Application of Lean thinking to the process of innovation
- Adapts Lean ideas in context of entrepreneurship
- Principle approach to new product development
- Guidance on how to make trade-off decisions
- Focuses on Validated Learning

Lean Startup: Set of practices to help entrepreneurs increase their odds of building a successful startup.

Eric Ries, The Lean Startup
Lean Startup Overview

Minimize TOTAL time through the loop

Input
- Vision
- Strategy
- Business Plan
- Assumptions

Output
- Growth
- Product Iterations
- Learnings

Pivots

Experiments
Why Lean Startup?

• Traditional approaches to management don’t always work with Startups
• Approach for “continuous innovation”
• Start-up success can be engineered with right process
• Startups must be managed
• Help recognize when to pivot and when to persevere

Startups: Human institution designed to create new products and services under conditions of extreme uncertainty
Benefits

• Business plans, forecasts are difficult to create in totally new product space
  – Customers can’t tell you what they want because they haven’t seen it or conceptualize how they would use it
  – Customers don’t know what they want in advance

• Customer focused development

• Get rapid feedback, adapt quickly

• Strategy based on validated assumptions

• Pivot to reflect learnings

• Accounting techniques to support the work of innovation
What Lean Start-Up Is Not --

- Not your traditional way to create new products
- Not a collection of individual tactics
- Not a rigid, lockstep process
- Not a lack of discipline
- Not a software development methodology
- Silver Bullet – Doesn’t fix everything
The Stage-Gate Process

- Alternative to Lean Startup
- Process containing methods & tools for New Product Development
- “Idea to Launch” processes, procedures, and controls
- Breaks process into smaller Stages (containing activities) and Gates (Go/Kill decisions)
- Each Stage gathers more info, reduces risk, raises cost
## Stage-Gate vs. Lean Startup

<table>
<thead>
<tr>
<th>Stage-Gate</th>
<th>Lean Startup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treats entrepreneurship as management</td>
<td>Treats entrepreneurship as management</td>
</tr>
<tr>
<td>Rough conceptual product</td>
<td>Minimum Viable Product</td>
</tr>
<tr>
<td>Spiral Development</td>
<td>Build-Measure-Learn Loop</td>
</tr>
<tr>
<td>Launch is endpoint</td>
<td>Open-ended process</td>
</tr>
<tr>
<td>Limited iterations</td>
<td>Encourages iterations</td>
</tr>
<tr>
<td>Go/Kill/Hold/Recycle Decisions</td>
<td>Pivot or Persevere Decisions</td>
</tr>
<tr>
<td>Limited relevance to high-tech innovation</td>
<td>Highly responsive high-tech innovation</td>
</tr>
<tr>
<td>Traditional Business Plans</td>
<td>Business Model Canvas</td>
</tr>
<tr>
<td><strong>Start</strong> → <strong>End</strong></td>
<td><strong>Start</strong> → <strong>End</strong></td>
</tr>
<tr>
<td>Finalizing a Product</td>
<td>Achieving Sustainability</td>
</tr>
<tr>
<td>How do we build this?</td>
<td>Should we build this?</td>
</tr>
<tr>
<td>Release a refined final product</td>
<td>Release to test assumptions</td>
</tr>
<tr>
<td>Revenue generated with final product</td>
<td>May generate revenue during process</td>
</tr>
</tbody>
</table>
Lean Analytics Stages

**Empathy**
- Are you solving a problem people care about and will pay for?
- Identify a real problem and real solution
- Get out of the Building, Interviews, Surveys

**Stickiness**
- Will the dogs eat the dog food?
- Leverage the solution with a small, friendly audience
- Test before going after the masses

**Virality**
- Will people spread the word?
- Acquisition, Onboarding processes
- Force multiplier for paid promotion

**Revenue**
- Will they open their pocketbooks?
- Monetize Product, Can you make money?
- Focus on maximizing and optimizing revenue

**Scale**
- Can we grow the market with sustainability?
- Acquire customers, expand verticals and geographies
- Channels, ecosystem, sustainability
Stage Example – Restaurant

**Empathy**
- Owner learns about diners in area
- Desires, trends, foods not available
- Gets out of building and talks to diners

**Stickiness**
- Develops menu
- Lots of tests on customers, frequent changes
- High costs, variation, uncertain inventory, giveaways

**Virality**
- Starts loyalty programs to entice return customers
- Encourage customers to share with friends, friend coupons
- Leverages social media

**Revenue**
- Work on margins
- Fewer free meals, tighter cost controls
- More standardization

**Scale**
- Proven sustainability
- Spends on marketing and promotion from revenues, broader advertising
- Launches second restaurant
Lean Startup Concepts
Lean Startup Principles

1. Entrepreneurs are everywhere
2. Entrepreneurship is management
3. Product Success depends on learning
4. Build-Measure-Learn Cycle
5. Measure Learning

Lean Start-Up is a set of practices to help entrepreneurs increase their odds of building a successful Startup.
Lean Startup Tenants

- Test and Learn Quickly
- Observe & Measure Customer Behavior
- Focus on Actionable Metrics
- Be comfortable Pivoting
- Embrace Innovation Accounting
- Release often & early
- Stay Lean

Lean Startup Tenants
What is a Startup?

• An acutely human enterprise
• Includes Entrepreneurs and Intrapreneurs
• Catalyst that transforms ideas into products
• Examples:
  – New Innovation
  – Scientific discoveries
  – Repurposing existing technology for new use
  – New business model
  – Product/Service to new location
  – Address underserved set of customers
  – New internal service

Start-Ups: Human institution designed to create new products and services under conditions of extreme uncertainty

Eric Ries, The Lean Startup
Type of Start up Activity

• Entrepreneurship

• Intrapreneurship

• Spin out

• Spin in / Aquisition
Types of Innovation

• Sustaining Innovation
  – Improvements to existing product
  – Serving existing customers
  – Most companies are good but...

• Disruptive Innovation
  – Breakthrough new products
  – New sustainable sources of growth
  – Companies struggle
Start-Up Model

- Vision
- Strategy
- Product

Optimization

Pivots
Value and Growth

• 2 Important Assumptions
  – Value hypothesis
    • Customers find product valuable
    • Does product or service deliver value to customer once they use it?
    • Value creating or value destroying
  – Growth hypothesis
    • Reasons behind product’s growth
    • How will new customers discover product?
Leap-of-Faith Assumptions

• Strategy is based on assumptions

• Strategy takes assumptions as a given and shows how to achieve Vision

• Goal: Test these assumptions as soon as possible

• Confirm make or break assumptions
  – Based on reality?
  – Real problem?
Build-Measure-Learn Feedback Loop

Minimize TOTAL time through the loop

IDEAS

BUILD

LEARN

DATA

CODE

Measure

Eric Ries, The Lean Startup
Build Phase

- Minimum Viable Product (MVP)
- Fastest full turn of cycle
- Minimum amount of effort
- Minimum development
- Start learning as quickly as possible
  - Any work beyond is waste
- Answer product design or technical questions
- Test fundamental hypotheses
- Usually overestimate needs for MVP
  - When in doubt, simplify
Measure Phase

• Are development efforts leading to real progress
• “Metrics are people, too”
  – Represents breathing, thinking, buying individuals
  – Behavior is measureable and changeable
• Are you making your product better?
• How do you know?
Role of the Product Owner

- Leads the Startup as the Entrepreneur
- Empowered to own product on behalf of the company
- Responsible for the product success
- Leads the team by conveying Product Vision to the team
- Develops and manages the Product Roadmap
- Defines and prioritizes the work in the backlog based on business value
- Works directly with the development team to facilitate their work
- Manages Stakeholders needs and expectations
- There is only **ONE** Product Owner
Diversity

• Identity Diversity

• Cognitive Diversity
Types of Cognitive Diversity

- Diverse perspective – Political, Social, Religious viewpoints.
- Diverse interpretations – How the brain sees the dark shadow at night. How your ears hear a baby’s cry
- Diverse heuristics – Do you run, do you fight. Do you act than think or think than act
- Diverse predictive models
Books about Lean Start-up

• The Lean Start-Up by Eric Ries

• The Lean Entrepreneur by Brant Cooper and Patrick Vlaskovits
Thank you!!!
I appreciate your time.

David Mantica
President, ASPE Training