Big Bang! Workshop

Business Validation

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Sacramento Angels
Introduction

- Brief introduction
- Business Models & Definitions
- Variety of Business Models
- Specific examples
- Capital Requirements & Reducing Risk
- Exercises
A Brief Introduction...

- Board Director, Sacramento Angels
  - Selections Committee chair
  - Review 100’s of Investment Pitches a year.
  - Investor in nearly a dozen early-stage companies
- Frequent advisor, UC-Davis Angels-on-Campus
- Guest Lecturer, UC-Davis Entrepreneurship Academies
- Judge, UC Davis BigBang! Competition, 2012 - 2015

- Former business executive, start-up & global technology firms.
  - Over 25 years in Product Management, Strategic Alliances, R&D Management, Operations Mgmt
  - Harvard M.B.A.; Stanford M.S.-Engineering; Boston B.S.-Eng’g
What makes a good business?

• Will it work?
• Are materials available?
• Is it scalable?
• Can it be tested cost effectively?

Technology

• Can the management team grow the business?
• Can the team grow with the business?

Team

• Who is the customer?
• How many customers?
• Value proposition to the customer?
• Competition?

Market

• How much revenue can you generate?
• What are the costs?
• What are the long term goals?

Business Model
Simplified Business Model

What is our Value Proposition?

Who are our Customers?

Value Proposition

Customer Segments

Costs

Revenues

How will we make money?

How much will it Cost?

What are Customers willing to pay?

Adapted from 'Business Model Generation', Alexander Osterwalder, Wiley 2012.
www.businessmodelgeneration.com
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### Revenue Models

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit Sales</strong></td>
<td>Sell a product or service to customers (wholesale, retail, or direct).</td>
</tr>
<tr>
<td><strong>Advertising Fees</strong></td>
<td>Sell opportunities to distribute messages (viewers, readers, listeners, or others)</td>
</tr>
<tr>
<td><strong>Franchise Fees</strong></td>
<td>Sell and support a replicable business for others to invest in, grow, and manage</td>
</tr>
<tr>
<td><strong>Utility Fees</strong></td>
<td>Sell goods and services on a per-use basis</td>
</tr>
<tr>
<td><strong>Subscription Fees</strong></td>
<td>Charge a fixed price for providing access to your goods or services</td>
</tr>
<tr>
<td><strong>Transaction Fees</strong></td>
<td>Charge a fee for referring, enabling or executing a transaction</td>
</tr>
<tr>
<td><strong>License Fees</strong></td>
<td>Sell the rights (exclusive or non-exclusive) to use patent- or copyright-protected IP</td>
</tr>
</tbody>
</table>
Definitions: Gross Margin

- **Revenue**
  - Money coming into the business (i.e. net sales)

- **Cost of Goods Sold (COGS)**
  - What it costs to make your product / service
  - Comprised of variable and fixed costs e.g. Raw material, direct labor, indirect labor, overhead

- **Gross Margin (%)**
  - Proportion of each dollar of revenue that goes to gross profit
  - \[
  \frac{\text{Revenue} - \text{COGS}}{\text{Revenue}} \]
Definitions: Cost of Goods

- **Variable costs**
  - Change with business activity
  - Raw materials (e.g. packaging)
  - Direct labor

- **Fixed costs**
  - Don’t change with production levels in the short term
  - Indirect labor
  - Overhead (e.g. Period expense for Capital Expenses (CAPEX) example: packing machine)
Definitions: Operating Expenses

- **Variable operating costs**
  - Change with business activity
  - Selling costs (e.g. sales commissions)

- **Fixed operating costs**
  - Don’t change with sales levels in the short term
  - Research & Development costs
  - Overhead (e.g. office expenses)
Definitions: Profitability

• **EBITDA**
  – Earnings Before Interest, Taxes, Depreciation and Amortization
  – Basically, gross margin less operating expenses (not including interest, taxes, depreciation and amortization)
  – Useful for valuation comparisons

• **Net Income**
  – Gross margin minus all expenses

• **Cash Burn rate**
  – How much cash your business consumes over a period of time
Example: Paramount Farms Inc.

Unit Sales Model

• Revenue based on
  – Price per unit
    • Almonds & Pistachios
  – Number of units sold

• Costs come from
  – Cost of ingredients
  – Manufacturing
  – Distribution
  – Advertising
Example: Netflix

Subscription Model

• Revenue based on
  – Monthly subscription
    • Unlimited views
• Costs come from
  – Content acquisition
    • movies, shows,
    • original productions
  – Advertising
    • customer acquisition
  – Production operations
Example: Teleflora

Subscription & Transaction Model

• Revenue based on
  – Membership fees from florists
  – Transaction fee from in-network sales

• Costs come from
  – Maintaining website
  – Customer service
Hybrid Business Models

Examples:
- "Freemium"
  - Free basic service, Premium for enhanced service
- "Ad-Supported"
  - Free to consumer, Advertising Fees to advertisers
- "Marketplace"
  - Free to buyers, transaction fee to sellers

Example: Google

Advertising Model:

- Revenue based on
  - Advertising fees
  - Sophisticated ‘auction’ pricing for ads

- Costs come from
  - Servers & Storage
  - I.T. Infrastructure
  - R&D Expenses
  - Sales & Marketing

Multiple Value Propositions

- "Search"
- Targeted Ads

Multiple Customers

- Consumers
- "Free"
- Advertisers

Revenues

Costs

$64-Billion Ad Revenues (2015)

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Example: Linkedin

Services Model:

• Revenue based on
  – Advertising fees
  – Access fees for H.R. recruiters
  – ‘Premium’ subscriptions from end-user professionals

• Costs come from
  – Servers & Storage
  – I.T. Infrastructure
  – R&D Expenses
  – Sales & Marketing

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More-Sophisticated Business Models

How will we engage our Customers?
How will we Deliver our Value?

The Internet and Mobile revolutions have enabled dramatic innovations in how we engage our customers.

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Many Startups Innovate on Business Model not Technology
Now it’s your turn....... Stage 1: Estimates

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Price/unit</strong></td>
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<tr>
<td><strong># units sold/year</strong></td>
<td></td>
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<tr>
<td><strong>Revenue/yr</strong></td>
<td></td>
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<tr>
<td><strong>Cost/unit</strong></td>
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<tr>
<td><strong>Gross Profit/yr</strong></td>
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</tbody>
</table>
Definitions: Pro-Forma Statements

- Pro-Forma Statements
  - “Best Guess” predictions on cash flow
  - “back of the envelope”
  - Designed to show the impact of a certain choices
### Stage 2: How much will it cost you?

- How much funding do you need?
- Look closely at your expenses
  - Create an Excel file
  - Cut and paste the following expenses...
  - Delete the rows you don’t need (that aren’t significant)
  - Add columns for each time period across the top
  - Start making assumptions...

<table>
<thead>
<tr>
<th></th>
<th>Period 1</th>
<th>Period 2</th>
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<tbody>
<tr>
<td><strong>INCOME</strong></td>
<td></td>
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<tr>
<td>Gross Sales</td>
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<tr>
<td>less Returns</td>
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<tr>
<td>Net Sales</td>
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<tr>
<td>(gross sales – returns)</td>
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<tr>
<td><strong>COST OF GOODS SOLD (COGS)</strong></td>
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</tr>
<tr>
<td><strong>GROSS PROFIT</strong> (Net Sales – COGS)</td>
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<tr>
<td><strong>OPERATING EXPENSES</strong></td>
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<tr>
<td>Salaries &amp; Wages</td>
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<tr>
<td>Sales Commissions</td>
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<td>Professional Services</td>
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<td>Rent</td>
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<tr>
<td>Maintenance</td>
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<tr>
<td>Equipment Rental</td>
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<tr>
<td>Furniture &amp; Equipment</td>
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<tr>
<td>Insurance</td>
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<td>Utilities</td>
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<td>Telephone</td>
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<tr>
<td>Office Supplies</td>
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<tr>
<td>Postage &amp; Handling</td>
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<tr>
<td>Marketing &amp; Advertising</td>
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<td>Travel</td>
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<tr>
<td>Entertainment</td>
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<tr>
<td>Other</td>
<td></td>
<td></td>
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<tr>
<td>Taxes</td>
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</tr>
<tr>
<td><strong>TOTAL EXPENSES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NET PROFIT</strong> (Gross Profit – Operating Expenses)</td>
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</tbody>
</table>
Definitions: J-Curve

Capital required to reach “Cash Flow Break Even”
Capital Requirements

(Increasing value and reducing risk along the way)

Business Value

Proof of concept
Beta Customer
Commercial Launch
Cash Flow Break Even

Company value grows with achieving milestones, not merely the passage of time.

Risk

Time
Next Steps: Validating Your Business

For your own business, identify the critical uncertainties around your business and business model.

1. Rank order the uncertainties.
2. Identify which should be resolved first (in the next 9-12 months). These are your business milestones.
3. List the resources (people, equipment, $) you need to reach those milestones. These are your funding requirements.
Final thoughts…

• Have a plan B
  – And a plan C and a plan D

• Seek market validation quickly
  – Get out of the building! Talk to customers, suppliers, partners
  – Get to market fast and with less capital
  – Don’t attempt to ‘Do It All’ right off the bat

• What is your unfair advantage?
  – Why can you do this, why you can defend it.