Funding & Finance for Big Bang!

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UC Davis Graduate School of Management

Value: An Introduction

Value Creation:  
Value Capture:
Lifecycle of a New Venture

*Research Grants (e.g. SBIR)*

*Friends, Family, & Founders ($5-$50k)*

*Angel Investors ($50-$500k)*

*Early Stage Venture Capital ($500k-$2M+)*

*Venture Capital ($2M-$50M)*

*Private Equity, Project Financing ($2M-$50M)*

*IPO, Merger, or Acquisition ($2M-$50M)*

Valley of Death

<table>
<thead>
<tr>
<th>Basic Research</th>
<th>Applied Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proof of Concept</td>
<td>Target Market</td>
</tr>
<tr>
<td>Working Prototypes</td>
<td>Founding Team</td>
</tr>
<tr>
<td>Engineering Prototypes</td>
<td>Supplier Contracts</td>
</tr>
<tr>
<td>Production Prototypes</td>
<td>Distribution Contracts</td>
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<tr>
<td>Product Introduction</td>
<td>Revenue Growth</td>
</tr>
</tbody>
</table>

Business Model

- How will you make money?
  - Revenues
  - Who are the customers for your product/service?
  - Why do they want it - “Value Proposition”?
- How much will it cost to generate your revenues?
  - Expenses: COGS, CAPEX, and OPEX
- How much revenue can you make and how quickly?
  - Capital Need and Cost of Capital
Brainstorm: Revenues

- Who will pay you for your product/service?
  - Define your customer
- Why will they pay you for your product/service?
  - Value proposition
- How much will they pay you?
  - And why do you think so?

Revenue Models

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

“Standard” – Unit sales (up-front license fee) plus maintenance & support subscriptions (Oracle)

SAAS – “Software as a Service”: license fees, maintenance, & support all one on-going subscription fee (Salesforce.com)

Premium Version – give away base product, sell premium product (Dropbox)

Add-ons – give away base product, sell add-on products (Zynga - Freemium)

Distribution Models: Pies

Bakeries
Farmer’s Markets
Restaurants
Grocery Stores
Big Box Stores
Specialty Cooking Shops
Online Retailers
Brainstorm: What is Your Revenue Model?

How does your industry get products/services to customers?

• Output – Research Tasks

Where will your product/service enter that process? Who will make that buy decision? How will you get paid?

• Output: Options

<table>
<thead>
<tr>
<th>Cost/unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price/unit</td>
</tr>
<tr>
<td># units sold/year</td>
</tr>
<tr>
<td>Annual Gross Revenue</td>
</tr>
<tr>
<td>Annual Gross Profit</td>
</tr>
</tbody>
</table>

The “Bottom Line”

Even if “finance” and “accounting” aren’t your forte, every entrepreneur must understand the basics of the “bottom line”

• Revenues & Margins
• Expenses
• Profitability
• Financial Planning (Pro-Forma Statements)
• Capital Structure
• Return on Investment (ROI)
Definitions: Revenue & Margins

- Revenue
  - Money coming into the business from...
- Cost of Goods Sold (COGS)
  - What it costs to make your products
- Gross Margin
  - [Revenue – COGS]

Definitions: Expenses

Fixed costs
- Don’t change with time
  - Capital Expenses (CAPEX)
  - Salaries/Overhead

Variable costs
- Change with volume/time
  - Operating Expense (OPEX)
  - COGS
  - Salaries & Bonuses
Definitions: Profitability

- **Net Income**
  - Revenues minus all expenses

- **EBITDA**
  - *Earnings Before Interest, Tax, Depreciation and Amortization*
  - Useful for valuation comparisons

- **Cash Burn Rate**
  - How much cash you lose each month/quarter
  - Indicative of cash flow issues

Definitions: Pro-Forma Statements

Pro-Forma Statements
- “Best Guess” predictions
- Allows for better product and financial planning
- Designed to show the impact of certain choices or assumptions

Income Statements
- Looks at revenue, expenses, and burn rates
Definitions: Capital Structure

- Senior Debt
- Subordinated Debt (e.g., Mezzanine Debt)
- Hybrid Financing (e.g., Convertible Debt, Convertible Equity)
- Preferred Equity
- Common Equity

Definitions: Return on Investment (ROI)

- Score of profitability in relation to capital invested over time
- Calculated as (Profitability less Investment) ÷ Investment
  - Investors often use ROI to evaluate the “efficiency” of an opportunity, or to compare opportunities
  - A high ROI means the profitability compares favorably to the size of the investment
- ROI is also something entrepreneurs must assess regarding technology/capital expenditures
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Basic Research
Applied Research

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Business Plan
Founding Team
Engineering Prototypes

Valley of Death

Definitions: J-Curve

Profit ($MM)
-40
-20
0
20
40
60
80
100
120

Capital required to reach "Break Even"
Capital Requirements: What’s Your Plan?

How Much Capital Will You Need?

How much funding do you need?

Look closely at your expenses

- Create an Excel file and enter the following expenses
- Delete the rows you don’t need (that aren’t significant)
- Add categories that are specific to your business
- Add time periods across the top
- Start making assumptions...

<table>
<thead>
<tr>
<th>INCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Sales</td>
</tr>
<tr>
<td>Returns/Refunds</td>
</tr>
<tr>
<td>Net Sales (Gross Sales less Returns)</td>
</tr>
<tr>
<td>GROSS PROFIT (Net Sales less COGS)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXPENSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of Goods Sold (COGS)</td>
</tr>
<tr>
<td>Salaries &amp; Wages</td>
</tr>
<tr>
<td>Sales Commissions</td>
</tr>
<tr>
<td>Professional Services</td>
</tr>
<tr>
<td>Rent</td>
</tr>
<tr>
<td>Maintenance</td>
</tr>
<tr>
<td>Equipment Rental</td>
</tr>
<tr>
<td>Furniture/Equipment Purchase</td>
</tr>
<tr>
<td>Insurance</td>
</tr>
<tr>
<td>Utilities</td>
</tr>
<tr>
<td>Telephone</td>
</tr>
<tr>
<td>Internet</td>
</tr>
<tr>
<td>Office Supplies</td>
</tr>
<tr>
<td>Shipping &amp; Handling</td>
</tr>
<tr>
<td>Marketing &amp; Advertising</td>
</tr>
<tr>
<td>Travel &amp; Subsistence</td>
</tr>
<tr>
<td>Entertainment</td>
</tr>
<tr>
<td>Other Expenses</td>
</tr>
<tr>
<td>Taxes</td>
</tr>
<tr>
<td>TOTAL EXPENSES</td>
</tr>
</tbody>
</table>

NET PROFIT (Net Sales less Total Expenses)
Brainstorm: Starting a Financial Model

What does your financing plan look like?

How much capital will you need at each step?

Thank you!