Lecture 14
Financial Projections and
Course Review
Today’s Agenda

• Daily Scrum
• Mentor Matchups
• Financial Projections
• Review
• Closing Class Exercise
• What’s Next
• Key Takeaways
Let’s Scrum!

• Take a minute to reflect…
  – What have you done since yesterday?
  – What are you planning to do today?
  – Any impediments/stumbling blocks?
  
  – What else are you thinking about?
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We have surprise guests dropping by this morning. Stay tuned!
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Which means in __ years...

- Earnings: Historical and Forecast
- For each time period, show cash balance.
  - Show how you expect the company to perform top line and bottom line three years out.
  - Show how much capital will be required now and later.
  - Prepare lots of backup slides to illustrate the assumptions behind these financials.
Financial Projections

• As a young startup, you haven’t made any money (yet). So how can you determine your financial future?
• No historical record means you must make assumptions, use industry information and incorporate your own experience.
• Results will be “in the ballpark”
• Key: prove that your estimates are believable, despite your infancy.
Pre-Revenue Forecasting Models

• 2 approaches for pre-revenue forecasting:

<table>
<thead>
<tr>
<th>Top-Down</th>
<th>Bottom-Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faster, straightforward</td>
<td>More credible, especially in the short-term</td>
</tr>
<tr>
<td>Good for estimates</td>
<td>More detailed</td>
</tr>
<tr>
<td>Timing is not reliable</td>
<td></td>
</tr>
</tbody>
</table>

• Both approaches will give you different results. Use both and think about why they differ, and which makes more sense for your company at this point.
Bottom-Up Forecasting

1. Identify your **Sales Funnel**
   - How many customers are in your TAM?
   - How many can you convert to buyers?
   - How many are already in the sales funnel? At which stage?
   - How long will it take? How much will it cost?
Sales Funnel/Sales Cycle

- **Suspect**: TAM
- **Lead**: initial contact, no confirmed interest
- **Prospect**: confirmed interest
- **Qualified**: Prospect with need, means and authority to purchase
- **Developed**: ready to buy
- **Accepted**: order placed
- **Transacted**: service or product delivered, invoice issued
• Timing depends on several factors:
  – **Familiarity**: new or previous experience?
  – **Cost level**: significant investment?
  – **Decision process**: single or multi-person purchasing decision?
  – **Clarity of value**: demo needed?
  – **Urgency of need**: any external factors/pressures?
When Does the Cash Come?

Cash Flow
# Conversion Rate

Probability of moving along each phase of the Sales Cycle

<table>
<thead>
<tr>
<th>Stage</th>
<th>Number of Opportunities</th>
<th>Conversion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>100</td>
<td>80%</td>
</tr>
<tr>
<td>Prospect</td>
<td>80</td>
<td>50%</td>
</tr>
<tr>
<td>Qualified</td>
<td>40</td>
<td>25%</td>
</tr>
<tr>
<td>Developed</td>
<td>10</td>
<td>50%</td>
</tr>
<tr>
<td>Committed</td>
<td>5</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Calculating Profit

**Profit** = Revenue – Costs

- **Revenue**: Average Selling Price x Units Sold
- **Costs**: Fixed vs. Variable

Example: for an ASP of $10…

<table>
<thead>
<tr>
<th>Stage</th>
<th>Number of Opportunities</th>
<th>Conversion Rate</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>100</td>
<td>80%</td>
<td>???</td>
</tr>
<tr>
<td>Prospect</td>
<td>80</td>
<td>50%</td>
<td>???</td>
</tr>
<tr>
<td>Qualified</td>
<td>40</td>
<td>25%</td>
<td>0.5 x 0.25 x 40 x $10</td>
</tr>
<tr>
<td>Developed</td>
<td>10</td>
<td>50%</td>
<td>0.5 x 10 x $10</td>
</tr>
<tr>
<td>Committed</td>
<td>5</td>
<td>N/A</td>
<td>5 x $10</td>
</tr>
</tbody>
</table>
# Fixed vs. Variable Costs

<table>
<thead>
<tr>
<th>Fixed</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Rent</td>
<td>• Cost of Goods Sold</td>
</tr>
<tr>
<td>• Utility bills</td>
<td>• Materials and supplies</td>
</tr>
<tr>
<td>• Phone bills/communication costs</td>
<td>• Packaging</td>
</tr>
<tr>
<td>• Accounting/bookkeeping</td>
<td>• Direct Labor Costs</td>
</tr>
<tr>
<td>• Legal/insurance/licensing fees</td>
<td>• Customer service</td>
</tr>
<tr>
<td>• Postage</td>
<td>• Direct sales</td>
</tr>
<tr>
<td>• Technology</td>
<td>• Direct marketing</td>
</tr>
<tr>
<td>• Advertising &amp; marketing</td>
<td></td>
</tr>
<tr>
<td>• Salaries</td>
<td></td>
</tr>
</tbody>
</table>

**Tips**
- Double your estimates for advertising and marketing costs
- Triple your estimates for legal, insurance and licensing fees
- Keep track of direct sales and customer service time as a direct labor expense to forecast this expense when you have more clients
Top-Down Forecasting

1. Estimate Market Potential
2. Determine Adoption Rate
3. Predict Market Share
4. Develop Revenue Scenarios
Estimate Market Potential

1. Know the problem you are solving.
2. Define your target customer.
3. Estimate the number of target customers who have that problem.
4. Determine Penetration Rate.
   - Penetration Rate \( 1/\alpha \) Product Specialization
5. Calculate potential market size.

\[
\text{Market Volume} = \text{TAM} \times \text{Penetration Rate}
\]

\[
\text{Market Value} = \text{Market Volume} \times \text{ASP}
\]
Determine Adoption Rate

- How fast will your technology be adopted?
- How mature is your business model?
- Are you using an established value chain?
- Are you introducing a disruptive technology?
- Use industry research to inform your estimates
Predict Market Share

• How much of the market will you be able to capture?
• In mature markets,
  \[
  \text{Market Share} = \frac{\text{Revenue}}{\text{Market Size}}
  \]
• In emerging markets, estimate your strength relative to your competitors:
  – Strength of Value Proposition
  – Amount of Capital
  – Marketing Effectiveness
Develop Revenue Scenarios

• For each Year $X$, calculate top-down revenue scenario

$$\text{Market Value} \times \text{Adoption Rate}(X) \times \text{Market Share}(X)$$

• Adjust and refine:
  – Create a 5-year forecast
  – Use best, likely and worst scenarios
  – Document all assumptions!
“Hockey Stick Projection”
In Class Activity: Top-Down Projections

• As a team, work through the steps we just discussed to determine your expected revenues from Year 1 to Year 5.
• Document your process and all your assumptions!
• Create a graph to show your growth.
• Each team will present.
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#1: Define Yourself!

Who are you?
What do you do?
Why does it matter?

Value Proposition
#2: Know Your Customers

Target Customer Profile

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male, female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>17-40 years old</td>
</tr>
<tr>
<td>Region</td>
<td>Cambridge MA (during initial growth stage)</td>
</tr>
<tr>
<td>Occupation</td>
<td>Student, young professional, internal migrant, middle management</td>
</tr>
<tr>
<td>Social level</td>
<td>Medium, high</td>
</tr>
<tr>
<td>Characteristics</td>
<td>Has a smartphone</td>
</tr>
<tr>
<td>User category</td>
<td>Early adapters, technologically advanced</td>
</tr>
<tr>
<td>Other</td>
<td>Active users of social networks, outgoing personalities</td>
</tr>
</tbody>
</table>

Persona

Male
- He wants to be unique
- Loves esquire, Forbes, afisha, pop, GQ.
- Current salary is USD 10,000/month
- Loves Strelka and Ginza Projects
- In summer he travels around the whole world
- 33 years old

Lives on Kutuzovskiy Prospect in Moscow
Works at VTB Investment Banking
Recently moved into his new flat with his girlfriend
#3: Determine the Market Size

**Total Addressable Market**

- 6.3 million mothers
- 4 consultations per year
- $7.99 per consultation

= $201 million/year

6.3 million mothers

DoctorSpring

Expert doctors, Quick Replies.
#4: Possible Pricing Schemes

- Free (ad revenue)
- Flat price for everyone
- “Freemium”
- Subscription/licensing
- Direct sale of goods and services
- Indirect sale of goods and services
- Sponsorship

What are some of the pros and cons of each?
#5: What is the Competition?

Competitor Analysis Matrix
#6: How will you reach your customers? How will you get more customers?

Go-to-Market Strategy

- WHOM will we actively target within the market?
- WHAT will be our product portfolio for target customers?
- HOW MUCH will we charge for our products for different customers?
- HOW will we promote our products to target customers?
- WHERE will we promote and sell our products to target customers?
Crossing the Chasm

- Innovators/enthusiasts
- Early adopters/ visionaries
- Chasm
- Early majority/ pragmatists
- Mainstream market
- Late majority/ conservatives
- Laggards/ skeptics
- Beachhead Market
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Reflection

• We’re now at the end of the formal part of the course.
• We hoped to inspire you and change the way you think about your future.
• Let’s do a little exercise to see whether we succeeded.
Questions about your dream

1. What were my most important feelings about this day?
2. What type of work did I choose for myself? Why?
3. Did I work with people, ideas or things?
4. Did I use interests/hobbies/skills that I am developing now?
5. Did I work for someone else, or was I in charge of the business?
6. Was I satisfied with the job I chose? Why or why not?
What are other attributes of an entrepreneur’s mindset?
The Entrepreneur

• Visionary
• Driven
• Optimist
• Strategist
• Articulate
• Resilient
• Diligent
• Imaginative

• Risk-taker
• Ethical
• Confident
• Ambitious
• Problem-solver
• Curious
• Crazy
• Passionate
Personal Challenge

• Choose 4 attributes from the list generated in class that you want to improve upon

• Write it down!

• Challenge yourself every day in those areas
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What weeks 4 to 6 will look like

• As promised, this is the last formal lecture *sadface*

• What you can look forward to:
  – Surprise guest lectures from entrepreneurs, designers, industry experts, etc.
  – Getting out of the classroom and into the real world (yay!)
  – Quality time with us! (in teams, as individuals, between teams)
What we expect from you

• Still commit 8:30am to 4:00pm to developing your business model and application
• Build a plan for how you will work as a team for the next 3 weeks (and share it with us!)
• Come ready for our meetings with progress updates and questions
• Seek us out if you need more help
• Help each other – share tools, networks, breakthroughs…
• Work and learn and work and learn…
inspire.

be inspired.
Logistics

- **Monday**: hackathon (all day coding!)
- **Tuesday**: UI presentation in the morning, team meetings with us in the afternoon (sign up online)
  
  - What we want to see:
    - Business model and pitch deck so far
    - Division of responsibilities
    - Plan for technical and business development
    - Questions for us
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Key Takeaways

• Your **financial projections** show your estimates for your company’s performance now and in the next 3 to 5 years.
  – Use the **top-down approach** for something fast, and the **bottom-up approach** for something reliable
  – Document ALL assumptions

• Entrepreneurship is about taking risks, failing, and learning. But you need to start, **now**.

• The fun has only begun. This is when the real work starts :)}
“Twenty years from now you will be more disappointed by the things that you didn’t do than by the ones you did do.”

- Mark Twain

- Check your e-mail and Facebook for any additional announcements.
- Questions?
- See you Monday!
It’s time to be awesome.