

Financials

Lecture 12
GSL Peru 2014

Housekeeping

- Please turn in your High Level Product Specification
- Do not forget to interview 5 people that meet your persona

- Demo Day
 - computing resources?
 - other resources?

Housekeeping

- Video Crew today
- No Labs this afternoon

- No classes on holiday next Monday 28th and Tuesday 29th

Overall View

Unit Costs for Products \neq Total Cost

Missing:

- R & D
- Administration: Finance, Legal, HR, etc.
- General: Exec Team, Office Space, etc.

Why do a Financial Plan?

- “They all look the same”
- “The numbers are meaningless”
- “It will all change anyway”
- “The investors are just going to basically ignore it and redo it so what is the point?”

Why do all this work for nothing

Maybe just projections, but...

- Demonstrates a Plausible Scenario in Which Your Business is Sustainable - puts aggregate numbers to your proposed business
- Shows Where the Weaknesses & Leverage Points Are as well as Boundary Conditions - Gives you a much deeper analysis of what you need to be successful
- Gets Focused on Key Milestones –What are the key milestones?

In Summary, it brings reality...



Business Plan - Financials Key Components

- Income Statement (Profit & Loss) - Start here!
- Cashflow - This is really more important!
- Balance Sheet - Don't bother too much. You have no assets... and very little liabilities
- Assumptions Summary - Articulate this
- Sensitivity Analysis - high, medium, low probability of key assumptions - Your worst case.. Is most likely...
- Selective market metrics - average revenue per customer, inventory turn, etc.

Business Plan - Financials

In the written plan, discuss business model, not just dollars
- try to get reader to relate to the business by associating with everyday reference points

- When and how much do you get paid?
- What is the Avg revenue per customer and average cost to acquire a customer?
- What is your cost structure? Fixed or variable?
- Is bus model well established or ground breaking?
- Cash burn, time to break even, cash needed for breakeven.
- Write a dialog that explains where the numbers come from

Start with Top Line Revenue

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Total Rev	\$410K	\$4.35M	\$9.2M	\$23M	\$54M	\$90M	\$250M
Units	40	305	610	1,500	4,500	9,000	35,000
Average Price	\$10K	\$12.5K	\$12.5K	\$12.5K	\$10K	\$8K	\$6K
Rec Rev Stream	\$10K	\$534K	\$1.6M	\$4.2M	\$9.3M	\$17.5M	\$40.5M
Gross Margin	70%	78%	79%	80%	75%	69%	58%
Net Cash Flow	-\$2.8M	-\$3.7M	-\$3.7M	+\$3.5M	+\$13.7M	+\$20.1M	+\$73M
Product Plan	Version 1	Ver 2 & 3	Ver 4 & 5	Ver 6 & 7	Ver 8 & Lite	Ver 9 & Lite 2	Ver 10 & Lite 3

Revenue

- There are 2 Types of Revenue
 - One Time Charge
 - Recurring
- What type of revenue does your venture generate?
- What are the units for your plan?
- What is the ASP in your case?
- What does you estimate the Gross Margin to be?
Over time? Why?
- When will you get paid?
- What are the key milestones?

Profit and Loss Statement

	<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>
Revenue		410	4,350	9,200	23,000
Cost of Goods Sold (COGS)		123	957	1,932	4,600
Gross Margin		287	3,393	7,268	18,400
Marketing & Sales (M&S)		221	1,293	2,860	6,150
Research and Development (R&D)		750	1,600	2,550	4,400
General & Administration (G&A)		125	375	675	945
Total Operating Expense (OpEx)		1,096	3,268	6,085	11,495
Earnings Before Interest & Tax (EBIT)		(809)	126	1,183	6,905
Interest		-	-	-	-
Tax (@ 40%)		-	-	200	2,762
GAAP Income		(809)	126	983	4,143

Cash is King!

Worry about cash flow...

- Cash not Accounting P&L is what matters
- Track and Project Monthly < 2 years
- Project Quarterly > 2 years

#1 Priority for Startups?

CASH = LIFE!

NO CASH = DEATH

Modified Cash Flow Statement

	<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>
Cash from Sales		349	3,759	8,483	21,047
Cash Out for COGS		111	874	1,835	4,333
Gross Margin		238	2,885	6,649	16,714
Cash Out for M&S		217	1,263	2,824	6,052
Cash Out for R&D		800	1,800	3,150	4,950
Cash Out for G&A		150	450	1,025	1,645
Total Cash Out for OpEx (includes capital expenditures)		1,167	3,513	6,999	12,647
Cash Flow from Operations		(930)	(628)	(350)	4,067
Interest		-	-	-	
Tax (@ 40%)		-	-	(763)	1,627
Cash Flow		(930)	(628)	413	2,440

1. Cash Received

2. Cash Paid

3. Depreciation Out

4. Capital Expenditures

Apply to your company

- What key variables are there in your business that will make the “Income” statement” different from the “Cash Flow” statement?
- Is there anything you can do to make things better for you?
- How can you minimize your cash requirements?
- When will you need cash? Approximately how much?

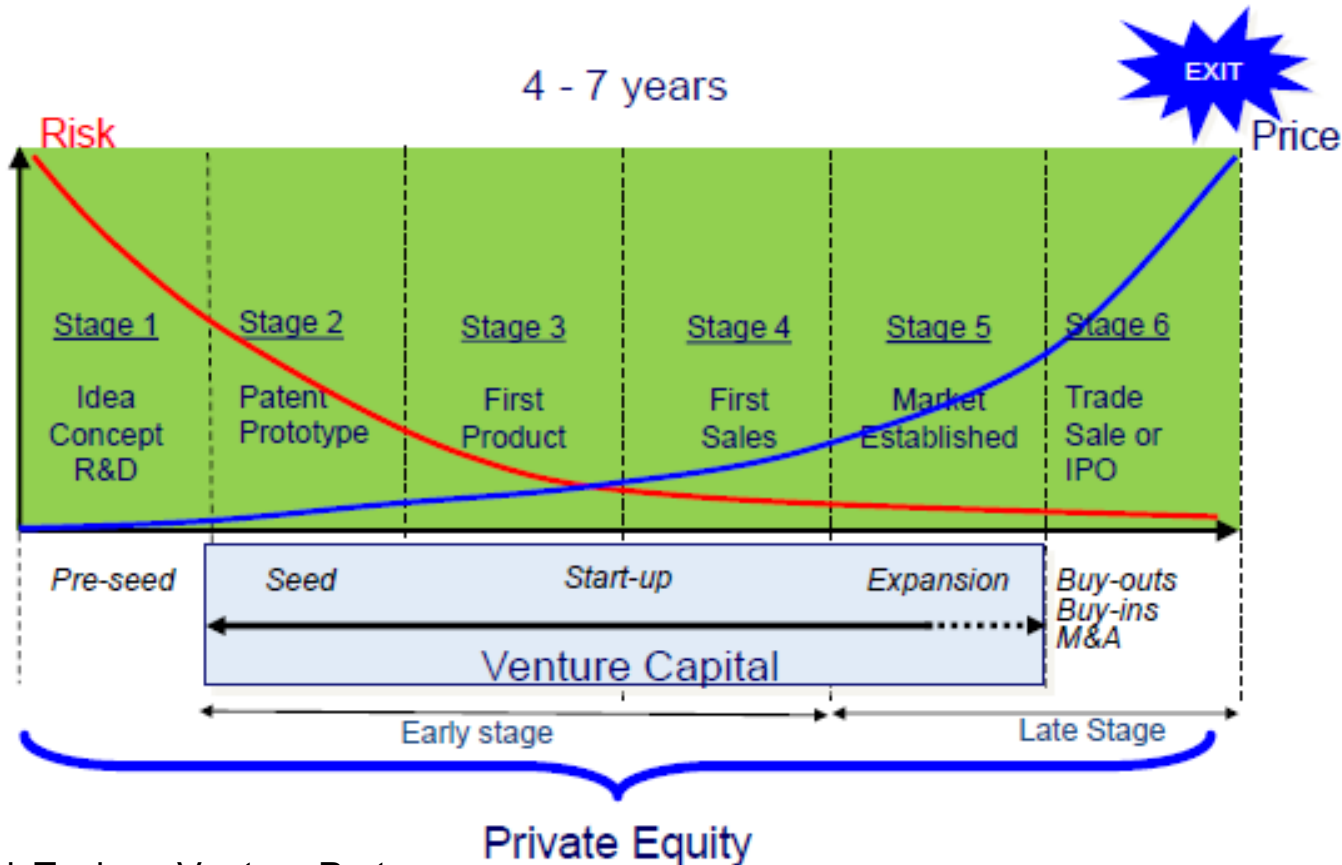
Key Information for Financial Summary

- Top Line Growth
- Cash in Bank
- Monthly Burn Rate
- Gross Margins
- Bookings
- Headcount
- Metrics
 - (M&S, R&D, G&A) as a % of sales
 - Industry Comparisons

Review of Funding Sources

- Internal Sources
 - Founders
 - Employees
 - Retained Earnings
- External Sources
 - Customers
 - Research Funding
 - Debt
 - F3
 - Business Angels
 - Venture Capital
 - Strategic Partners

Life Cycle of a New Venture



Source: PolyTechnosVenture Partners

Grading Finance Sources

<u>Type</u>	<u>Money</u>	<u>Value Add</u>	<u>Dilution</u>	<u>T&C's</u>	<u>Future</u>	<u>Comment</u>
Customers	B - limited	B - focus	A - none	B - minimal	B - free	validation
Gov Funding	B+ - still limited	D	A - none	C - paperwork	B - free	Good for right stage
Debt	C - need to repay	D	A	D - covenants	B - free	One of tools
F3	?	?	?	?	?	High risk
Angels	B	A-F	C	A-F	C	
Venture Capital	A - lots	A-C	D	D	A	Varies but less
Strategic Partner	A	B	C	C	?	Good for later

Summary of Pros and Cons

	<u>Pros</u>	<u>Cons</u>
Customers	Customer Focused No Equity	Enough Money? Generalizable Solution
Government	No Equity	Less Market Oriented Tend to become "Body Shop"
Angels	Tom Sawyer	High Variability Next Round?
Strategic/Corporate Partnerships	Legitimacy/Customer Partnership Valuation	Next Round? Turnover Watch T&C's
Venture Capital	Follow On Rounds Seal of Approval	Loss of Control Stakes Went Up
Late Stage Capital	Hands Off Follow On Money	Dumb Money Don't Usually Do Start Ups

Determinants of Funding Sources

- Owners Objectives
- Needs of the Business
- Possibilities of the Business
- Market Conditions

Debt vs. Equity

- Debt
 - Fixed Rate of Return?
 - Collateral
 - How to get paid for risk
- **Equity**
 - **Assumes exit**
 - **Or Filthy Rich Dividends ... ?**
- Mix
 - Convertibles
 - Warrants

What is your business worth???

	<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>
Cash from Sales		349	3,759	8,483	21,047
Cash Out for COGS		111	874	1,835	4,333
Gross Margin		238	2,885	6,649	16,714
Cash Out for M&S		217	1,263	2,824	6,052
Cash Out for R&D		800	1,800	3,150	4,950
Cash Out for G&A		150	450	1,025	1,645
Total Cash Out for OpEx (includes capital expenditures)		1,167	3,513	6,999	12,647
Cash Flow from Operations		(930)	(628)	(350)	4,067
Interest		-	-	-	
Tax (@ 40%)*		-	-	-	864
Cash Flow		(930)	(628)	(350)	3,203
Net Present Value of C-Flow	\$	131			
Discount Rate		20%			

Terminal Value

What Price an Investor can Exit at

- Multiple of Revenue
- Multiple of Earnings/Free Cash Flow/EBITDA
- Comparables

Example

	<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>
Sales		349	3,759	8,483	21,047
Cash Flow from Operations		(930)	(628)	(350)	4,067
Cash Flow After Tax		(930)	(628)	(350)	3,203

- What Industry Category?
 - Computer Peripheral (Logitech)
 - CAD/CAM (SolidWorks, Dassault, PTC) or Design Software (Alias/Wavefront)
 - Other – Virtual Reality Companies (Cybernet, Immersion), Intellectual Property

Example

- Multiple of Earnings/Free Cash Flow
 - Requires multiple data points – Public Companies & M&A transactions
 - Explain each one
 - Triangulation
- Multiple of Revenue
 - Same as Earnings/FCF

Result: Justify 2-3 Multiple of Revenue -> \$50M at end of Y4

Other Considerations

- Can be other important metrics
 - Install base – e.g. eyeballs
 - Intellectual Property
 - Strategic Partnerships
- Growth is extremely important consideration
- Gross Margin is extremely important
- Most common as company gets bigger is EBITDA
 - EBITDA or FCF Multiple 6-12x but usually 8-10x
 - Forward looking not trailing
- When big company is looking at you, they will redo financials eliminating G&A to calculate new Operating Contribution and then use their multiples to value

Internal Rate of Return (IRR) Calculation

- Assumptions:
 - \$50M Terminal Value (V)
 - Discount Rate Used by Investors = 50% $\text{\textcircled{R}}$
 - Timeframe of 4 Years (t)
- Post Money Valuation at Year 0
 - Formula $V/(1+r)^t$
 - $\$50\text{M}/(1.5 \times 1.5 \times 1.5 \times 1.5) = \$50\text{M}/5.625 = \$9.876\text{M}$
 - Definition: Post Money Valuation – Pre Money Valuation plus Investment
- Ownership
 - Assumed \$3M in Investment to Achieve Aforementioned Financials
 - % Ownership for Investors = $\$3\text{m}/\$9.876\text{M} = 30.38\%$
 - Assume 5 million shares approx. 1.519 m shares to investors

Additional Notes

- It is a lot simpler:
 - Valuations are rounded to millions
 - Investor has a % in mind they want to own
 - Venture Capital investor has in mind an amount of money they want to put to work
 - Recognition that valuation is an imprecise science
- It a lot more complicated
 - There is much more than valuation
 - Type of stock –Terms and Conditions
 - Multiple rounds of fundraising need to be forecasted
- Don't get obsessed on valuation
 - Need a holistic view
 - Address in a rational way

IRR

- Bank vs. Bonds vs. S&P Stock vs. Small Company Stock vs. Highly Speculative Illiquid Investments
- Compensated for Risk
- Compensated for Lack of Liquidity
- Compensated for Adding Value
- Competition/Market Conditions

History of Private Equity Returns



1. Feast & Famine

2. 10 year total = 277%

3. 10 year average 25%

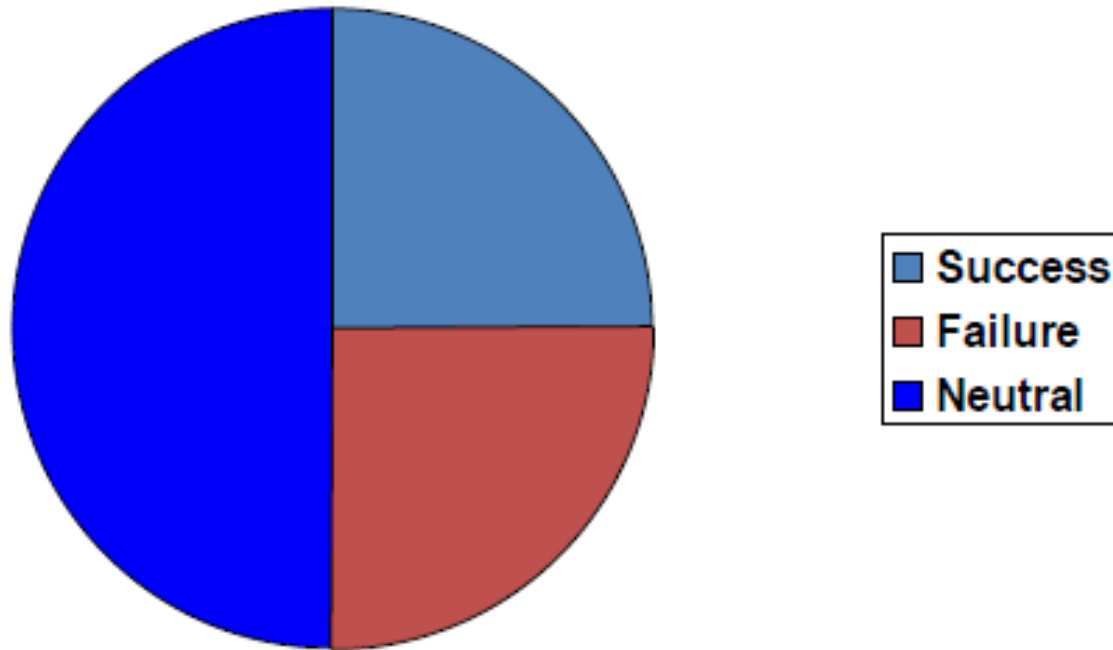
Source: Venture Economics

Expected IRR

Stages of Investment			
Stage	Description	Typical Investment	Expected IRR
<i>Seed</i>	Idea exploration and assessment	\$25K - \$300K	80%
<i>Start-Up</i>	Solid Idea with partial team	\$1-M - \$ 5M	50% - 70%
<i>First Stage</i>	Establish marketing and sales efforts	\$8M - \$12M	40% - 60%
<i>Second Stage</i>	Working Capital to support growth	\$12M - \$20M	30% - 50%
<i>Bridge</i>	Bridge to IPO	\$1M - \$5M	20% - 25%

Expected IRR

Typical Venture Capitalist Portfolio



What Matters?

- Offer of 1 million shares of common stock – what do you think?
- Tradeoffs
 - % Ownership Valuation
 - Terms and Conditions
- Having a Good Working Relationship in the End of the Negotiation

Terms and Conditions

- Avoid Tunnel Vision on Valuation
- Terms and Conditions are Equally Important
- Negotiate in as Holistic a Way as Possible

Term and Conditions

- Type of Stock
- Liquidation Preference
- Conversion Right
- Anti-Dilution Protection
- Redemption
- Voting Rights
- Board of Directors
- Representations
- Closing Conditions
- Founders Vesting
- Options Pool Vesting and Size
- Expenses
- Reports
- Right of Participation/Right of First Refusal
- Registration Rights

Lessons on T&C

- The cheap man pays the most
 - Get a lawyer early but control him
 - Try to Control the Documents as Well
- Keep things as vanilla as possible
- Don't let your optimism blind you
 - Understand what happens if you fall short
- Lot more creative “Win-Win”son Terms & Conditions than with valuation
- You are an amateur and they are professionals
 - Do not ignore or disengage from the details but ...
 - Get help –for process and details

Quality of Your First Investor is Key

- Set the tone and sends a message to the market place
- A investors won't usually come in on a deal with B or C quality investors
- You are married to your first investor –they will be your mentor for so much
- If they don't come back in on the next round, no smart investor will fund it
- There is no nice way to divorce –successful or unsuccessful

References

New Enterprises Lecture Notes - Bill Aulet

Disciplined Entrepreneur - Bill Aulet

Nuts and Bolts - MIT