



Engineering Entrepreneurs' Program

www.engr.ncsu.edu/eep

Finance & Stock Options

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Monday February 24th



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Financial Projections

- Keyword = “Projections”
- Estimate
- Guesstimate
- Fiction for a start-up with no history



Financial Projections

- Projected...
 - Income Statement
 - Balance Sheet
 - Cash Flow Statement
- Don't forget *Breakeven Analysis*



Financial Projections

- Where do the “projections” come from?
- Come from the budgets you create?
- How do you create a budget?
- You start with a *List-of-Assumptions!*



Financial Projections

- What are the investors looking for?
- Reasonable and verifiable assumptions
- Reasonable detail –
 - 1st & 2nd years monthly, 3rd year quarterly, maybe 4th & 5th year yearly
- Most importantly...
 - a reason to say NO, I.e. the fatal flaw in your business model



Income Statement

Sales Revenue	\$10,000,000
Cost of Goods Sold Expense	\$6,000,000
Gross Margin	\$4,000,000
Operating Expense	\$2,000,000
Operating Expense before Depreciation	\$2,000,000
Depreciation Expense	\$200,000
Operating Earnings	\$1,800,000
Interest Expense	\$100,000
Earnings Before Income Tax	\$1,700,000
Income Tax expense	\$566,100
Net Income	\$1,133,900



Balance Sheet

Current Assets		Current Liabilities	
Cash	\$500,000	Accounts Payable	\$400,000
Accounts Receivable	\$750,000	Accrued Expense	\$20,000
Inventory	\$1,000,000	Income Tax Payable	\$25,000
Prepaid Expenses	\$250,000	Short-term notes	\$250,000
Total Current Assets	\$2,500,000	Total Current Liabilities	\$695,000
		Long-term Notes Payable	\$250,000
Property, Plant & Equipment		Stockholder's Equity	
Land, Building, Furniture,	\$1,500,000	Capital Stock	\$2,000,000
Depreciation	(\$500,000)	Retained Earning	555,000
	\$1,000,000		\$2,555,000
Total Assets	\$3,500,000	Total Liabilities & SH's Equity	\$3,500,000



Cash Flow (Sources & Uses)

Cash Receipts	
Products Sold	\$10,000,000
Borrowing	\$200,000
New stock	\$3,000,000
Total Cash receipts	\$13,200,000
Cash Disbursements	
COGS	\$8,000,000
Operating expense	\$5,000,000
Notes payable	\$75,000
Income Tax	\$200,000
Total Cash Disbursement	\$13,275,000
Net Increase (Decrease) in Cash	(\$75,000)



Types of Budgets

- Revenue
- Inventory
- Marketing
- Administrative
- General
- Capital



Budgets

- All budgets are based on assumptions
- AND**
- You need to write them down!
 - Three methods to use...
 1. Top-Down
 2. Bottoms -up
 3. Market Survey



Revenue Budget

1. Top-Down
(# of units sold) X (Price/unit)
2. Bottoms-up
(List of expenses and you figure out how many units you need to sell and at what price)
3. Market Survey
(Gather \$ projections for your market and estimate your market share)



Revenue Budget

1. Sales: Cash, Credit Cards, Credit
2. Returns
3. Other Income
4. Received on Account
5. Bad Debt



Revenue Budget

1. Sales: Cash, Credit Cards, Credit
Cash (increase operating \$)
Credit Cards (increase operating \$, but increases operating expense)
Credit (no operating \$, but increases Accounts Receivable & Profit)
2. Returns (decrease operating \$)
3. Other Income (interest, sales of assets)
4. Received on Account (increases operating \$ from previously sold products)
5. Bad Debt (write off)



What are Founder's Shares

- Founder's Shares are...
 - The "ultra" inexpensive shares which forms the basis of the company at incorporation time – typically \$0.001/share
 - The first batch of Common Stock
- Holders of Founder's Shares must sign an "83b Election" or face devastating tax consequences



What is an ISO (Incentive Stock Option)?

- An ISO is an option to purchase stock at some time in the future and at a specified price
- Used to attract and retain key-employees
- Has many restrictions, for example:
 - Can only be issued to employees
 - Must be "granted" by the company
 - Typically has a vesting schedule
 - 10-year exercise window
 - Option price must equal or exceed underlying stock at the time of grant (I.e. common stock, which is about 1/10 to 1/5 the value of the latest preferred stock)
 - There are many, many more restrictions.....



Continued....What is an ISO?

- What does “Granted” mean?
 - In the context of an employee, it is a formal vote by the company’s Board of Directors (BOD) that “x” number of ISO’s have been awarded to a specific employee
- What is a vesting schedule?
 - A period of time through which you earn the right to convert your ISO’s into common stock



Continued....What is an ISO?

Example vesting schedules

- Ex 1:
 - 25% at year 1 plus 1 day
 - 25% at year 2 plus 1 day
 - 25% at year 3 plus 1 day
 - 25% at year 4 plus 1 day
- Ex 2:
 - 25% at year 1 plus 1 day
 - Vest monthly for the remaining 3 years



Continued....What is an ISO?

- How do you parcel out Founder's Shares & ISO's ?
- Founder's Shares – No rule, but usually depends on how much \$'s each founder kicks in
- ISO's – First and foremost, stock options are for risk...more risk, more options

(note: early rank 'n file employees typically have more than executives hired on later in the life of the business)

Example: VP: 3% of common

Director: 1.5 % of common

Key technical employee: 0.75% to 1%

Rank 'n file employee: 0.05% - 0.125%



Preferred Stock vs. Common Stock

- Paid for upfront – no vesting
- Liquidation preference over common – they get their money first
 - What does that mean to founders?
- Series A – Z represent preferred stock with LIFO liquidation
- At liquidation, all preferred stocks convert to common at the agreed upon ratios – employees watch out
- Preferred is negotiable, common is not
- This is a 400,000 ft. view – volumes of books are available on the subject:

(Consider Your Options by Kaye Thomas ISBN 0-9674981-6-3)



Funding Alternatives for Startups

- Bootstrapping
- Angel
- Strategic Alliance / Partnership
- Venture Capital



Perceptions

Bootstrap

Living on beans 'n
potatoes

3 to 5 years hard
work to IPO



Perceptions

Bootstrap	Living on beans 'n potatoes	3 to 5 years hard work to IPO
Angel Funding	Hot dog & burgers	2 to 4 years of hard work to IPO



Perceptions

Bootstrap	Living on beans 'n potatoes	3 to 5 years hard work to IPO
Angel Funding	Hot dog & burgers	2 to 4 years of hard work to IPO
Strategic Alliance	Pizza & McD's	2 to 4 years of hard word to IPO



Perceptions

Bootstrap	Living on beans 'n potatoes	3 to 5 years hard work to IPO
Angel Funding	Hot dog & burgers	2 to 4 years of hard work to IPO
Strategic Alliance	Pizza & McD's	2 to 4 years of hard word to IPO
Venture Capital	Café Momo	18 to 36 months of hard work to IPO



Reality

Bootstrap	Pizza & McD's	5 years hard work to IPO
Angel Funding	Pizza & McD's	5 years hard work to IPO
Strategic Alliance	Pizza & McD's	5 years hard work to IPO
Venture Capital	Pizza & McD's	5 years hard work to IPO



Walsh's 1st Rule of Business

- Grow slowly until the market dictates otherwise
- Why?
 - 1) You get to create the company that **YOU** want to work at
 - 2) You get to keep both the control and the rewards



Bootstrap : How-to

- Personal savings
- Credit cards
- Friends & family
- Loans
- Contract consulting
- Develop product on nights and weekends
- Hire temps
- Lease used equipment
- Above all: Focus on **CASH**



Angels

- Who are they?
- How do you find them?
- How much do they typically invest?
- What do they want?



Angels

- Who are they?
 - ❑ There are no Business Directories of Angels
 - ❑ Band of Angels – Silicon Valley
 - ❑ TIG (Triangle Investment Group)
 - ❑ CEO's, Exec's other entrepreneurs
- How do you find them?
 - ❑ Thru attorneys, bankers, accountants, entrepreneurs, etc
- How much do they typically invest?
 - ❑ \$10,000 to \$250,000 (Total Deal < \$1M)
- What do they want?
 - ❑ Preferred Stock – they use to take common stock
 - ❑ Do not want to run your company



Strategic Alliances / Partnerships

- What are they?
 - ❑ Quid Pro Quo (You do this, I do that)
- What do you get?
 - ❑ Access to larger markets at little to no cash
 - ❑ Build credibility
 - ❑ Quicker time-to-market
- What does it cost?
 - ❑ You have to share the pie
 - ❑ IP (Intellectual Property) rights can be clouded
 - ❑ Potentially drive off future VC funding
 - ❑ Potentially cutoff some customers
- Bottom line:
 - ❑ The right relationship for a startup can be **GOLD**



Venture Capital

- Who are they?
 - ❑ Typically high wealth individuals themselves who represent the interests of pension funds and other investment vehicles
 - ❑ A “loose” Taxonomy is:
 - Tier I (+\$10s Billions)
 - Tier II (+\$1 Billions)
 - Tier III (+\$100 Millions)
 - Boutique (\$10M to \$50M)
- What do they look for?
 - ❑ Depends on the stage of the investment, but ...
 - Exceptional management
 - Good cash flow
 - A “Liquidity Horizon” of between 12 to 48 months
 - A ROI of 4X to 40X



Recap

Bootstrap	"The" Method of Choice – Long term: Better financing, greater control, reveals hidden problems and forces you to correct them ASAP
Angel Funding	Most important means of financing for entrepreneurs – Angels fund 40X more deals than VC's
Strategic Alliance	A well structured one is as good as GOLD
Venture Capital	The last Port 'O Call for funding – Most expensive, but for a rapidly growing business you need them



Resources

- Pratt's Guide to Venture Capital
- Venture Capital Quarterly
 1. www.v1.com/research/venturedata/stats/index.html
- Private Equity
 1. www.people.hbs.edu/jlerner/info.html
 2. www.pwcmoneytree.com
 3. www.cgi.pathfinder.com/yourco/resources/index.html
 4. www.enterprise.org/enet
 5. www.bloomberg.com
 6. www.sba.gov
 7. www.herring.com
 8. www.capitalventure.com/cvvclinks.htm



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