Start-up Finance for First Time Entrepreneurs

The Financial Basics of Starting a Business

How to use this course

- This course assumes you have an idea which you have validated through customer discovery and market research.
- This course also assumes you are new to entrepreneurial ventures and as such, the course provides some detailed information but highlights beginner tips to focus on so that the content does not becoming overwhelming. These tips are shown with the following book icon…

Beginner tip

NOTE : Seasoned entrepreneurs may find the content to be simplified and may seek an alternate resource. This content is meant to be introductory.

Financial aspects of starting a business….

1. Selecting a business model
   - Financial statements
   - Creating a forecast model
2. Selecting a legal entity
   - What type
   - What are the pros/cons
3. Recording ownership
   - Cap tables
   - Types of funding
4. Metrics to measure?
   - KPIs
   - Investor communications
5. What can go wrong?
   - Examples

1. Business Models

- There are many great ideas, but they also need to make money!
- There are many ways in which you can be paid.
- The two simplest are…
  - One time sale – this is a one-time exchange for your product or service
  - Subscriptions – A repeating payment in exchange for on going use, subscriptions can come without a limit or be tied to usage

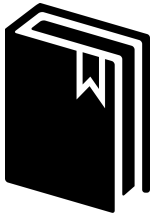
One-time sales are easiest, subscriptions are slightly harder but provide a mechanism for continuing revenue which is often preferred by investors.

1. Business Models

- More complicated methods which may be more difficult to execute…
  - Rental – this is a temporary exchange for your product, because you retain ownership of the asset there are often liability issues
  - Licensing – this is allowing someone else to sell your product for you and you accept a small percentage, this relieves you of the responsibility of execution but also means you are relying on someone else
  - Fees – If your service is to connect others you can not collect payment for the asset, but you may collect a fee. This may be necessary if you are a marketplace but that means you must have fairly large volumes of activity
  - Advertising – you received a small amount of money for each visitor who views an ad. This requires very large numbers of transactions as the price per ad can be less than $0.01.

1. Business Models

Why does your business model matter?



Your business model determines..

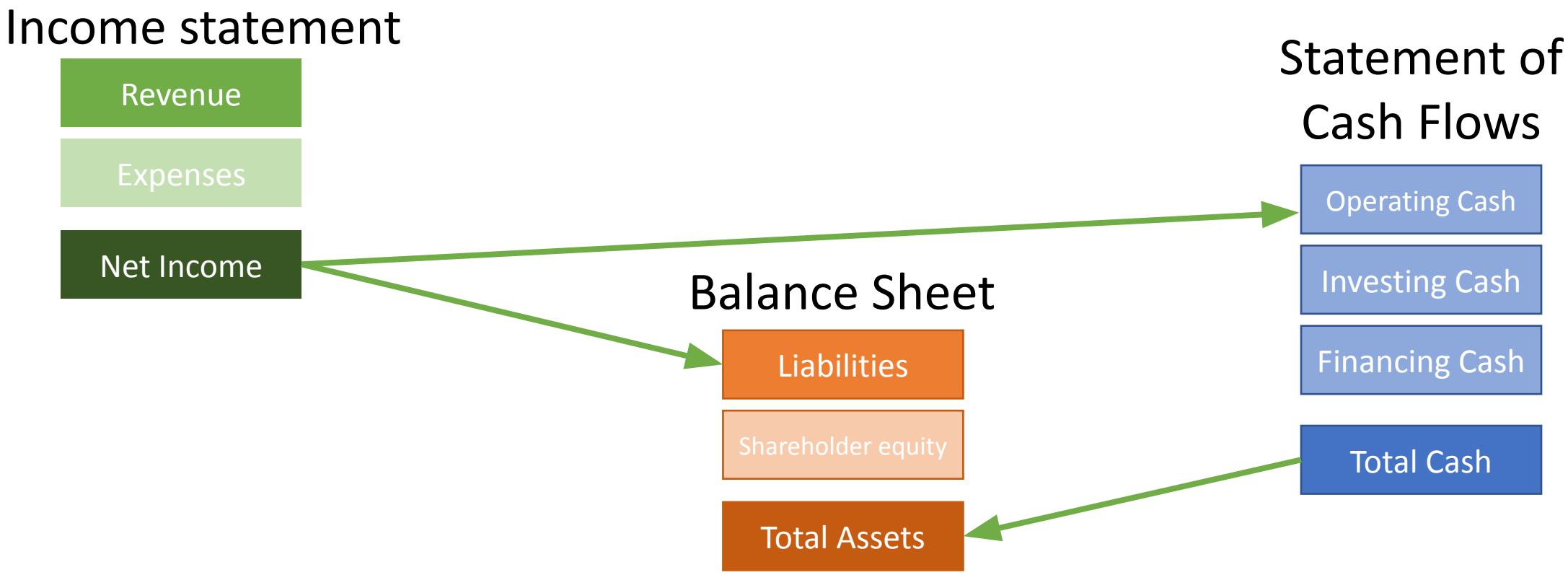
- How and when you bring in cash.
- When you can spend money and if you need debt.
- How many customers you need to be profitable.
- The limitations of your scaling mechanism.

1. Business Models

Three Main Accounting Reports

Income statement, Balance Sheet, Statement of Cash Flows

All three statements are linked by line items which are transferred to the next report



1. Business Models

Together, the three main accounting reports measure the business's health.

They are necessary to make accurate and timely decisions, such as:

- How much cash do we need?
- Where should we get it? Investment or Debt?
- When will we run out of cash?
- What are we spending our money on?
- What levers are there to change our cash flows positively or negatively?
- Are we spending our money on the RIGHT things?
- When do we get to cash flow break even?
- Can we afford to increase headcount? If so, how many? When?
- Do we need to reduce headcount? If so, how many? When
- How should we price Product A?
- How much are we making on Product B?
- Is Product C profitable?

1. Business Models

- Please see the additional excel file associated with this course –

Startup Finance for First Time Entrepreneurs - Example Financial Models.xlsx

- This file contains six tabs with the following information:
  1. Example of inter-related Income Statements, Balance Sheet and Statement of Cash Flows
  2. Income Statement model for subscriptions with churn
  3. Typical Balance Sheet
  4. Typical Statement of Cash Flows

1. Business Models

- Assignment

Review the financial statements for your favorite company.

How can things go wrong?

Do they have enough cash?

Do they have diversified revenue streams?

Look up the following terms and check them against your company:

Working Capital

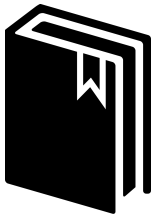
Debt to Equity Ratio

Return on Equity

2. Legal Entity- What IS a company? (USA)

Easy → Legal effort → Difficult

	Sole Proprietorship	LLC	Partnership (General)	Partnership (Limited)	S Corp	C Corp
Owners	1	1+, No Limit	2+	2+	<100	1+, No Limit
Liability	Unlimited	Limited to Owners' investment	Unlimited Joint & Sever	Limited to investment	Limited to SHE' investment	Limited to SHE' investment
Equity Sources	Owner	VC & Equity offerings to owners	Owner; Friends & Family	GPs & LPs	VC & Sub S investors	VC & Common SHE
Tax Rate	Personal Rate	Personal Rate	Personal Rate	Personal Rate	Personal Rate	Corp. Rate + Dividends
Pro/Con						



LLCs are easiest, if you want to take investment money you will need to be a C Corp
You can convert an LLC to a C Corp

3. Recording Ownership

There are several ways in which you may take money into your company:

- Revenue from Sales of your product or service
- Taking out a loan (bank or even using a credit card)
- Grants/Prize Money
- Crowdfunding
- Convertible debt (Convertible Note, SAFE- "Simple Agreement for Future Equity")
- Equity Investment

Equity Investments require having a Capitalization Table (CAP Table), which can be very complicated. Thus, Cap Tables will be explained in the following slides.

3. Recording Ownership

- A capitalization table, usually called a “cap table”, is a way to show who owns how much of the company when money is accepted as an equity investment. For a startup, the cap table is a record of all the shareholders of your company. This could include: any founders, angel investors(including friends and family), venture capitalist, and anyone like an employee or advisor to whom you issued shares.
- Issued Shares may be different than Outstanding Shares or shares that have been created but not specifically assigned.

This sounds like a simple list, but once you have accepted an investment, the math can be VERY complicated! It is best to get help with accepting money.

3. Recording Ownership

- The best way to understand a cap table is to walk through an example.
- Please see the additional excel file associated with this course – Startup Finance for First Time Entrepreneurs – Cap Table.xlsx
- This file will step through three rounds of financing

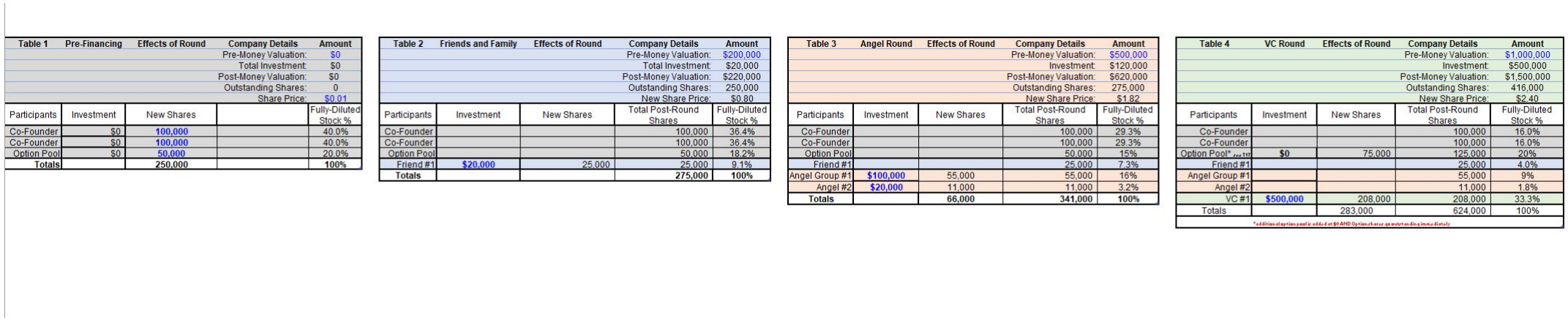


Table 1	Pre-Financing	Effects of Round	Company Details	Amount
			Pre-Money Valuation:	$0
			Total Investment:	$0
			Post-Money Valuation:	$0
			Outstanding Shares:	0
			Share Price:	$0.01
Participants	Investment	New Shares		Fully-Diluted Stock %
Co-Founder	$0	100,000		40.0%
Co-Founder	$0	100,000		40.0%
Option Pool	$0	50,000		20.0%
Totals		250,000		100%

Table 2	Friends and Family	Effects of Round	Company Details	Amount
			Pre-Money Valuation:	$200,000
			Total Investment:	$20,000
			Post-Money Valuation:	$220,000
			Outstanding Shares:	250,000
			New Share Price:	$0.80
Participants	Investment	New Shares	Total Post-Round Shares	Fully-Diluted Stock %
Co-Founder			100,000	36.4%
Co-Founder			100,000	36.4%
Option Pool			50,000	18.2%
Friend #1	$20,000	25,000	25,000	9.1%
Totals			275,000	100%

Table 3	Angel Round	Effects of Round	Company Details	Amount
			Pre-Money Valuation:	$500,000
			Investment:	$120,000
			Post-Money Valuation:	$620,000
			Outstanding Shares:	275,000
			New Share Price:	$1.82
Participants	Investment	New Shares	Total Post-Round Shares	Fully-Diluted Stock %
Co-Founder			100,000	29.3%
Co-Founder			100,000	29.3%
Option Pool			50,000	15%
Friend #1			25,000	7.3%
Angel Group #1	$100,000	55,000	55,000	16%
Angel #2	$20,000	11,000	11,000	3.2%
Totals		66,000	341,000	100%

Table 4	VC Round	Effects of Round	Company Details	Amount
			Pre-Money Valuation:	$1,000,000
			Investment:	$500,000
			Post-Money Valuation:	$1,500,000
			Outstanding Shares:	416,000
			New Share Price:	$2.40
Participants	Investment	New Shares	Total Post-Round Shares	Fully-Diluted Stock %
Co-Founder			100,000	16.0%
Co-Founder			100,000	16.0%
Option Pool*	$0	75,000	125,000	20%
Friend #1			25,000	4.0%
Angel Group #1			55,000	9%
Angel #2			11,000	1.8%
VC #1	$500,000	208,000	208,000	33.3%
Totals		283,000	624,000	100%

3. Recording Ownership

- Table 1 is the Pre-Financing Round, the beginning of your company
- Your company many not be worth anything (Pre-Money Valuation of $0), NOTE THE TERM PRE-MONEY, this is the value of your company BEFORE that round's investment
- You must select a share price, this is somewhat arbitrary but often selected as a penny or less, along with a somewhat arbitrary selection of shares (often 100,000 or 1 Million) which then determine your ownership percentage of the company.
- Typically, an option pool of 15 to 20 % of shares is created so they can be given to early key employees
- Lastly the ownership of each participant is calculated by dividing the number of shares by the total shares

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Option Pool	$0	50,000		20.0%
Totals		**250,000**		**100%**

3. Recording Ownership

- Table 2 is the Friends and Family Round, the beginning of fundraising
- Typically, your first investment will come from people you know as they are already confident in you as a person. Professional investors will want to know you for some time (often 6 months to a year) before they invest.
- At this point you must select a valuation. This is VERY difficult. It can be based on assets, or any revenue, or a potential for revenue.

- NOTE THE TERM POST-MONEY which is the value of your company after you add the current round's investment to the PRE-MONEY valuation

Table 2	Friends and Family	Effects of Round	Company Details	Amount
			Pre-Money Valuation:	$200,000
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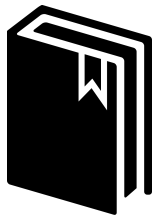

Cap Tables are complicated, and it is worth getting trusted help.

3. Recording Ownership

- The outstanding shares are transferred from the previous round. This allows the new **share price** to be calculated by dividing the pre-money valuation by the outstanding shares, as this is the baseline we are working from.
- As such, then the new investors are "purchasing" shares at that price. So the new investment ($20,000) divided by the new share price ($0.80) provides the number of new shares (25,000), which are added to the outstanding shares to create the Total Post-Round Shares (275,000).
- Which allows the percentage of ownership to be recalculated by dividing owned shares by the total post-round shares.
- As you can see, prior owners own less, which means they have been "diluted"

Table 2	Friends and Family	Effects of Round	Company Details	Amount
			Pre-Money Valuation:	$200,000
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Friend #1	$20,000	25,000	25,000	9.1%
Totals			**275,000**	**100%**

3. Recording Ownership

- Table 3 is the Angel Round, this is often your first money from people you did not previously know
- Once again we must determine a pre-money valuation, this is likely NOT the same as your first round of funding since you will have made progress to get to this funding round.
- Then the following math to get to a post-money valuation, new share price and percentage ownership is the same
- Note again, the decrease in ownership percentage of the co-founders AND the first round Friend.

Table 3	Angel Round	Effects of Round	Company Details	Amount
			Pre-Money Valuation:	$500,000
			Total Investment:	$120,000
			Post-Money Valuation:	$620,000
			Outstanding Shares:	275,000
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Totals		**66,000**	**341,000**	**100%**

3. Recording Ownership

- Table 4 is the Venture Capital Round of funding. Most companies will NOT reach this stage because they either do not need to, or are not successful enough to do so.
- Once again, we select a pre-money valuation which is likely a larger increase than from Table 2 to Table 3. The rest of the math is the same
- A new component is an add to the option pool. These additional shares are to maintain the 15 or 20% pool ownership range. They are NOT assigned a dollar value as cash was NOT added to the company.
- Once again, observe the new ownership percentages. You can alter these values in the excel sheet and observe how valuation and investment dollars affect dilution.

Table 4	VC Round	Effects of Round	Company Details	Amount
			Pre-Money Valuation:	$1,000,000
			Investment:	$500,000
			Post-Money Valuation:	$1,500,000
			Outstanding Shares:	416,000
			New Share Price:	$2.40
Participants	Investment	New Shares	Total Post-Round Shares	Fully-Diluted Stock %
Co-Founder			100,000	16.0%
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Friend #1			25,000	4.0%
Angel Group #1			55,000	9%
Angel #2			11,000	1.8%
VC #1	$500,000	208,000	208,000	33.3%
Totals		283,000	624,000	100%
*additional option pool is added at $0 AND Option shares go outstanding immediately				

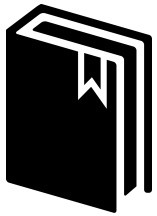
3. Recording Ownership - Terms

- Valuation – What your company is worth - * this is difficult pre-revenue or early stage
- Liquidation Preference – Multiple of original purchase price on exit (typically 1x)
- Participating/Non-participating – How money is returned to investors
- Anti-Dilution – Prevents founders giving away ownership to make investors share smaller
- Employee Option Pool – Ownership set aside for key hires at later date
- Many other detailed terms

Protective Provisions – List of things you can't do without investor approval
Warrants – Options for investors to buy more ownership at set price
Redemption Rights – Investor can force the company to convert
Information Rights – What company info investors have the right to see

3. Recording Ownership - Stock

- Preferred vs Common Stock – Investors get preferred stock; founders get common stock. Preferred puts an order on who gets money first during a liquidation event.
- Liquidation event – A trigger that causes the company to return money to its shareholders. This may be voluntary or involuntary.



Remember this can get very complicated and may be necessary to get legal advice

3. Recording Ownership -Liquidation Terms

- Preference Multiplier

  This value determine the amount an investor must be paid before the common shareholders can receive any remaining money. For example, a 1x (one time) liquidation preference means that an investor in that round must be paid back at least what they invested bore any common shareholders are paid anything. Let's say at your round you invested $1M for 30% of the company. If the company sells for $1.2M, you receive your $1M back even though 30% of $1.2M is only $360,000. If the company sold for $900,000, you would receive all the proceeds.

  In another example you have a 2x multiplier and the company sells for $3M, you would be eligible for a $2M payment despite only investing $1M.

  Multiplies are typically 1x or 2x but could be as high as 10x.

3. Recording Ownership -Liquidation Terms

- Participation

  An investor may have either a participating OR non-participating liquidation preference, separate from the multiplier. In a non-participating preference, the investor has EITHER the option to exercise the liquidation preference OR convert their shares to preferred shares to common shares such that they have a define percentage of equity and will be paid based on that equity and NOT on the multiplier of investment.

  Preferred to common share conversions are typically 1 to 1.

3. Recording Ownership -Liquidation Terms

- Participation - This can be VERY confusing, so let's pencil out an example.

  You invested $1M with a 1x non-participating liquidation preference which listed you as 20% of diluted ownership. The company sold for $2M.

  You may – exercise your liquidation preference and receive $1M (1x your investment)

  OR you may – convert your shares to hold your 20% equity and then be paid 20% of the $2M sale price or ($400,0000)

  Of course, you would choose to exercise the liquidation….unless the company sells for more than $5M at which 20% of more than $5M will be more than $1M

3. Recording Ownership -Liquidation Terms

- Participation – But it gets MORE confusing… NOW

  You invested $1M with a 1x **participating** liquidation preference which listed you as 20% of diluted ownership. The company sold for $2M.

  Now you– exercise your liquidation preference and receive $1M (1x your investment)

  PLUS you convert your shares to hold your 20% equity BUT of the remaining proceeds. So 20% of the $2M - $1M, or 20% of the remaining $1M, so $200,000.

  Thus your final payout is $1.2M. At the $5M sale price you receive $1M plus 20% of $4M or $800,000, so $1.8M.

3. Recording Ownership -Liquidation Terms

- Participation - So, its obvious participating is better, right?

  Well, not really. It depends on the multiplier the sale price and another term we have not yet talked about.

  Participation Caps

  A participation cap was introduced to protect the entrepreneur from outsized payouts. A cap will typically be a 1 to 3x multiplier. So our $1M investment with a 1x participating liquidation preference will a 3x participation cap can receive up to $3M in total proceeds.

  However, the investor may choose to convert and be paid out more based purely on the equity ownership, but they will then be paid in turn with the entrepreneur.

3. Recording Ownership -Liquidation Terms

- Participation – Already confusing but there is one more important term

  Seniority – When terms include standard seniority, liquidation preference payouts are paid in order from the last round to the first round. So later investors have an advantage.

  But early-stage investors took a bigger risk, shouldn't they be rewarded. Well, this is tough because early-stage investors make smaller dollar bets and reply on later stage investors to catapult the company to scale. Later stage investors are often in a position to provide high value to the company and in return can ask for better terms.

3. Recording Ownership –Exit Scenarios

- Let's look at a few common exit scenarios and see some sample math…..

You have agreed to invest $4 million ($10 million post money valuation) which means you have a 40% ownership ($2M/$5M). You are buying preferred equity that can be converted to common stock at your discretion.

INVESTOR PAYOUT SCENARIOS – so remember what that means if you are the entrepreneur!

3. Recording Ownership –Exit Scenarios

Sale Price	1x liquid pref No participation	1x liquid pref Participation With 3x cap	3x liquid pref Participation With no cap
$2M	**$2M**	**$2M**	**$2M**
$10M	$4M OR (40% of $10M= **$4M**)	$4M + (40% of $6M)= **$6.4M** OR (40% of 10M = $4M)	$4M *3 = $12M, but it only sold for **$10M** No possibility to convert
$50	$4M OR (40% of $50 = **$20M**)	$4M + (40% of 46M) = $22.4M but you are capped at $4M*3 so $12M OR (40% Of $50M)= **$20M**	$4M*3 = $12M + (40% of $38M) = **$27.2M** OR 40% of $50M = $20M

3. Recording Ownership –Exit Scenarios

- From the previous slide if the company exits at or below your investment, it really doesn't matter what your terms were
- If the company exits for a modest amount above your investment it can matter.
- If the company exits for a large amount above your investment, it will likely matter greatly.
- However, it is impossible to know, so when selecting terms it is important to have an idea of what your exit might look like so you can do some math in advance.

Venture Capital firm want to make money, but they also want entrepreneurs to do well. Remember as your company does well, you may have an opportunity to restructure, but the terms in the term sheet are legally binding.

4. Metrics to Measure

Each business will be different, and it is critical to select the correct metrics that help you understand if your operations are supporting your company's goals and if not which levers to pull on to make a correction.

Some Key Metrics to consider:

- **Customer acquisition cost (CAC)** – Cost to get one customer to use your product or service, often from marketing, you can get a low acquisition cost from something like a Groupon but get low revenue per customer, so be careful
- **Average revenue per user (ARPU)-** Average amount you bring in from each customer, this may not be a good metric if you have some customers that pay nothing and some that pay a lot, you may need to list this per customer segment
- **Customer lifetime value (LTV) –** Amount of money for a customer over time, keep your recurring customers happy
- **Monthly active users (MAU) –** Typically for apps, downloads are not as important as active users
- **Monthly recurring revenue (MRR) –** Amount of revenue that repeats each month
- **ARPA (Annual Revenue per Account)** = MRR / Total # of Customers
- **Revenue growth rate –** Rate at which one period's revenue is greater than the last
- **Gross Profit** = Total revenue minus the cost of goods sold
- **Gross Margin** = Difference between revenue and cost of goods sold

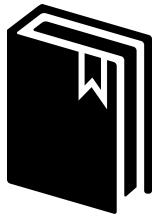
4. Metrics to Measure

- **CCR (Customer Concentration Risk)** = Revenue from largest customer / total revenue
- **Activation Rate** = Number of users taking a specific action to get value out of a product
- **Customer churn rate (CCR) –** How often you lose customers, it is more expensive to obtain new customers than to keep existing customers happy
- **Revenue churn rate (RCR) - R**ate at which revenue is lost from churned customers or downgraded subscriptions.
- **GCR (Gross Churn Rate)** = MRR lost in a given month / MRR at the beginning of the month
- **Net Churn** = (MRR lost – MRR from upsells) this month / MRR at the beginning of the month
- **Retention by Cohort** = % of original installed base (1st month) that are still transacting
- **ARR (Annual Run Rate)** = Projection of current MRR into the future, annualized
- **Sell-Through Rate** = Number of units sold in a period/number of items at the beginning of the period
- **Loyalty –** Net Promoter Score® measures customer experience and predicts business growth. See NPS site for formula
- **Network Effects** = Effect of one user on other users, influencers can be a great marketing tool
- **Platform Risk** = Dependence on a specific platform or channel
- **Direct Traffic** = Traffic coming directly to your site via a link or entering the URL
- **Organic Traffic** = Unpaid traffic from search results

4. Metrics to Measure

- **TAM (Total Addressable Market)** = Revenue opportunity available for a product
- **Monthly Cash Burn Rate** = How much money you spend per month (gross)
- **Runway –**how many months you have before you run out of money – this is typically for early stage companies that are not making a profit from sales
- **Revenue per employee** – Total revenue/number of employees in company
- **Average sales cycle length-** Measures the length of time from initiating a sales contact to closing the deal, good for for something like a large asset sale to a big company, for apps Customer Acquisition is likely a better metric
- **Customer Service Response Time** - measures how long it takes customer support staff to follow up after a customer submits a ticket.

There are many Key Metrics that can be measured, and you will likely need to prioritize different metrics based on the stage of your company.



The most important thing is to have systems in place to record data so that you can measure any of these metrics at any time. For example, you must set up an internet traffic tracking system right away, because you can NOT go back and retrieve that data.

5. What can go wrong?

Ok, trick question – as they say what can go wrong will. But there are some common mistakes you can beware of…

- Spending money on ads that aren't working – Social media ads or Search Engine Optimization (SEO) can sound attractive, but it can be hard to compete with larger companies ad. Be sure your ads are targeted and you are carefully measuring their return on investment
- Not segmenting your customers – The same product can be sold with very different messaging which speaks to the customers need, also products can be modified to meet different price point expectations
- You run out of cash – Spending too much on inventory, marketing, insurance, before you have incoming revenue can prematurely put your company out of business

5. What can go wrong?

- Not understanding the best next alternative – unless you are developing a life saving drug/product – people aren't dying without your product, what are they using now and how much faster, better, cheaper does your product solve their problem
- Scaling too quickly – It takes some time to get employees, processes and systems in place to run a business well. Focusing on scaling can make it difficult to get the correct operations in place while staying cash positive.
- Taking on too much leverage – It can be tempting to take on debt to fund your company, but starting with large debt can burden your company with paying it back instead of re-investing in your company.
- Giving away your company– Television shows have made taking investor money look cool, but as per our Cap Tables you can wind up essentially working to give most of your gains to someone else.
- Giving up too early – You don't want to put good money after bad, but starting a company is hard, so be sure to be ready to persevere through tough times!

End of Course – Thank you.

- As mentioned, this course is meant for first time entrepreneurs and seasoned entrepreneurs may find some concepts simplified.
- However, the content is meant to streamline learning for the most fundamental and basic aspects of financially starting a business.
- Comments welcomed and can be directed to: Karen.Crofton@colorado.edu

- Author's Thank you…
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