CSE3PPE / CSE5003

Professional Practices and Entrepreneurship in I.T.

Lecture 5

Semester 1 2024

Recap from last week

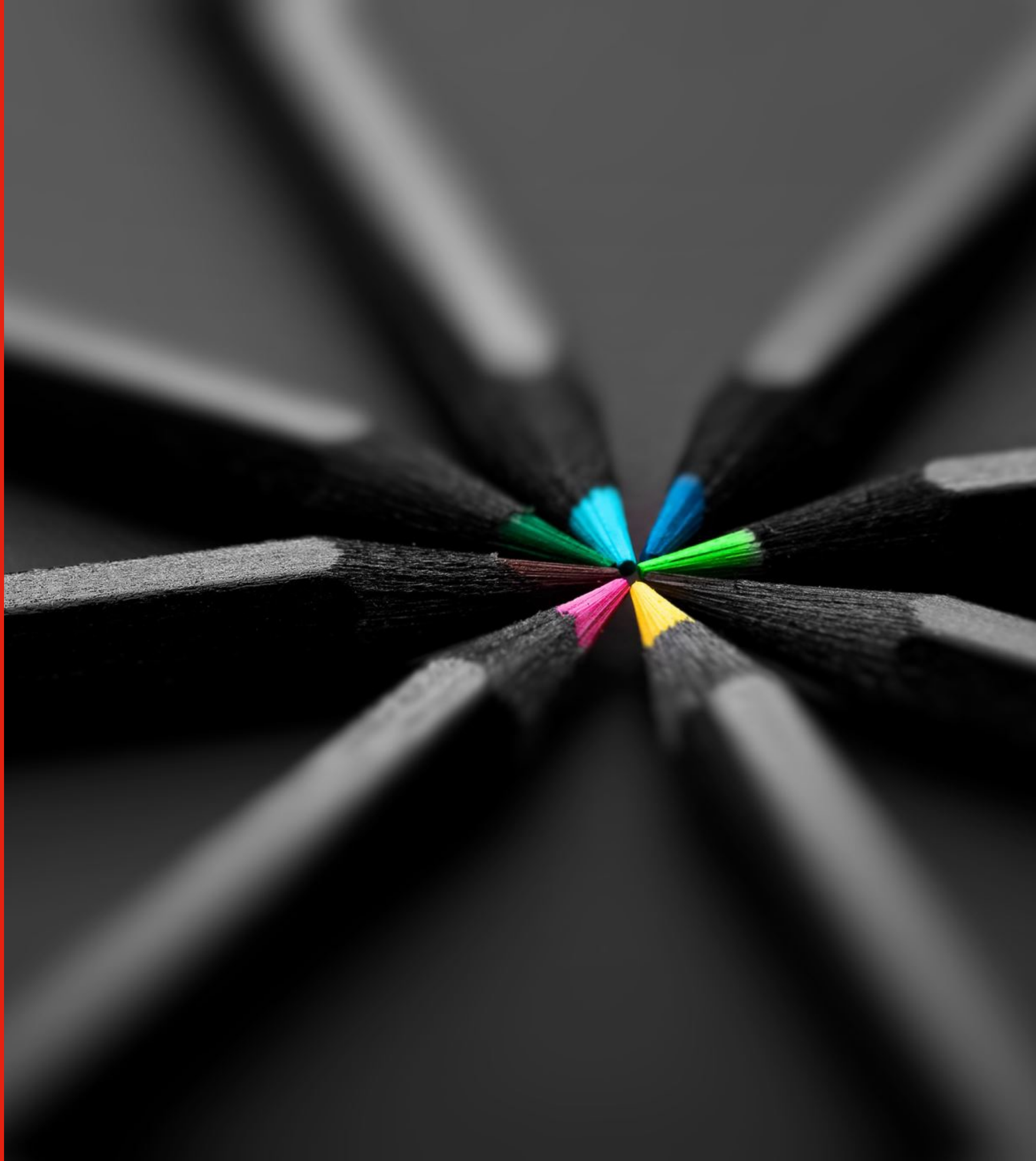
We continued exploring aspects of the Lean Canvas, including

1. Workshopping the solution
2. Developing the unique value proposition (and connecting this back to the customer through the Value Proposition Canvas)
3. Identifying the various channels we can utilise to connect with customers and get our product/solution to them
4. Looking beyond our product/solution to consider what unfair advantage our founding team has that could be exploited during the start up phase

Lecture 5

Financing Entrepreneurship

(Part 1)



The Lean Canvas

<table>
<tr><td rowspan="2">1. Problem</td><td>3. Solution</td><td rowspan="2">4. Unique Value Proposition</td><td>6. Unfair Advantage</td><td rowspan="2">2. Customer Segments</td></tr>
<tr><td>8. Key Metrics</td><td>5. Channels</td></tr>
<tr><td colspan="3">9. Cost Structure</td><td colspan="2">7. Revenue Stream /s</td></tr>
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Maurya, A. 2012 *Running Lean, Second Edition* O'Reilly Media Inc 978-1-449-30517-8

Cost Structure

What might be some of the costs involved in starting a business?

Cost Structure

Why are cost structures important?

From a unit-cost-per-sales perspective, the start-up time is the most expensive. This is because you typically have high costs in terms of development and testing, as well as investment in critical resources.

As your business grows, your costs will become more efficient.

But how do you manage costs before you get to your growth phase?

First, you need to understand them as best you can.

Cost Structure

In this section we cover the following principles around cost:

What are the basic operating costs of my business?

What is burn rate?

What are the basic operating costs of a business?

In broad terms, costs fall under three main categories:

- Operating and overhead costs (for example payroll, rent, and other utility costs such as electricity, phone, water)
- Product/solution development and/or manufacturing costs (including customer validation, redesign and reconfiguring)
- Corporate costs (legal, accounting, tax obligations, ASIC fees, etc)

(Blank and Dorf, 2020 p436)

What are the basic operating costs of a business?

Costs also appear across the business in ways we may not consider at the very beginning of our company journey. For example

Channel costs: These are considered the costs associated with getting your product/solution out to your customers. A large share of these costs can be associated with marketing your product. There is also the process of getting your product into a location in order for it to be sold. Here, acquiring the channel can become a direct cost. Many new product suppliers are required to spend a considerable amount of time and money to get ‘picked up’ as a product in a major supermarket. The supermarket can also demand any marketing costs associated with promoting the new product to be paid by the supplier.

Customer relationships: We know it is costly to acquire customers and reach the first sales. It is also a cost to keep them. What do these customers require to remain engaged with your product/solution? Is it affordable to keep these customers on board?

There are two main cost elements to consider:

Fixed costs

Variable costs

Fixed costs

Typically involve costs that do not change, regardless of how many items you sell.

Examples

- Your office space
- A factory or warehouse
- Subscriptions, insurance, accounting costs, email, web hosting

Variable costs

Are directly tied to the product or service you are selling. The more you sell, the more this resource will cost you.

Examples

- Production
- Staffing
- Postage
- Source materials
- Data warehousing
- Keeping your customers

What does COGS mean?

In company finance, COGS stands for Cost of Goods Sold.

It is used as a way to track company performance, and includes all costs associated with the production of the goods/service being sold.

This can comprise of fixed and variable costs, and more commonly focuses on inputs such as supplier materials.

Fixed costs are usually apportioned (divided by the number of units sold that the fixed cost is attributed to).

What are Operating Expenses?

Operating expenses are costs incurred from operational activities such as marketing, salaries and general admin, rents, etc.

The time basis of projections can be daily, monthly, yearly, or whichever is most appropriate.

How can you determine the cost of your product?

- Experience
- Trial and error
- Well-researched assumptions
- Accurate data that is constantly updated as more information is known
- Determining the impact of efficiencies of scale

Sourcing well-researched assumptions as a guide for cost estimates

Identify similar companies in your industry as a benchmark

- Average figure for a particular industry (or even a specific company) can be found from secondary data.
- Be mindful of the differences between established company cost estimates and a start-up
- Good metrics are different depending on the industry.
- How do you position yourself in the industry and how you compare with other companies?

What is the burn rate?

In start-up terms, the burn rate refers to the amount of cash you are spending before you can secure enough revenue, and eventually profit, from your sales to sustain your business.

It relates directly to the amount of start-up capital you have available in order to keep running, and how quickly you are spending it.

Start-ups must closely monitor their burn rate and calculate ahead of time when they expect to run out of money. This might inform a sales target or require a new round of funding to support the ongoing business operations.

A Few Words About Burn Rate (2020)

Venture capitalist Fred Wilson provides the following guidance on burn-rates for venture funded web/mobile businesses. Wilson's advice looks at burn rate based on the company's growth stage.

- *Customer discovery*, which he calls the "building product" stage, should keep the burn rate between:
  $50,000 and $75,000 a month, which should fund a team of three or four engineers building the MVP as well as the founding team, rent, operating costs and the like
- *Customer validation,* Wilson's "building usage" stage, shouldn't exceed a burn rate of $100,000 a month. This stage begins when product/market fit is achieved and fuels the "get customers" and MVP iterations.
- *Customer creation*, Wilson's "building the business" stage, should ideally hold the burn rate to $250,000 a month as the company builds a team, expands marketing activities, and starts generating material revenues.

These are guidelines, and there are zillions of exceptions."

(Blank and Dorf, 2020, p440)

Start-up Financial Model example

Jose Cayasso (Caya), the CEO and Co-Founder of Slidebean. This video goes into some detail and uses terms around financial costs not common in Australia such as SG&A (which stands for Selling, General and Administrative expenses). The video provides an honest perspective of the costs of running a tech start-up and how the company managed this while seeking customers and growth.

The video runs for 10 minutes and 12 seconds.

Tools to help calculate start-up costs

The following resources are available online to support you in working out what you start-up costs might be and how to track them.

Business.gov.au: Calculate the start-up cost of your business.
This site includes an xlsx template which is free to download

Business.vic.gov.au: Calculate your costs to start a business
This site provides detailed planning tips and resources.

Revenue Streams

What are Revenue Streams?

We are broadly talking about the cash a company generates from each Customer Segment. There are many ways we can do this. For a start-up, one of the most challenges business decisions to make centres on these questions:

- How will you make money?
- Is there more than one way to make money?
- Can you make enough revenue to progress towards profitability?

Related to this are questions such as:

- What is your pricing strategy?
- Are these prices sustainable?

The challenges of getting the revenue stream right

- The revenue and pricing components are considered the toughest of all elements of the business plan.
- However, they are the most crucial.
- Central to this is understanding what your customer segment is **willing to pay**.
- You can run as many formulas as you like, but the key way to determine the correct revenue stream and price point is to **test it** with your customers.

There are four questions to ask regarding revenue:

How many of these things will we sell?

What's the revenue model?

How much will we charge?

Does this add up to a business that is worth doing?

Revenue and Pricing

1. How many will we sell?
2. What is the revenue model?
3. How much should we charge?
4. Do revenues point to a business worth doing?

Question 1: How many will we sell?

The number of products/services you can sell depends on the following:

- The **size** of your customer segment market
- Your ability to **capture a share** of this market
- Your **ability to produce** the goods and services required to meet the market

Revenue and Pricing

1. How many will we sell?
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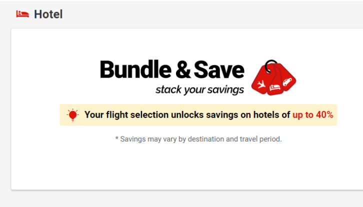
Question 2: What is the Revenue Model?

There are a number of revenue models, many of which have become popular in recent years through the advancement of web/mobile commerce. Popular examples include:

Sales	Product, app, or service sales are the principal revenue source for many web/mobile startups, typically in a one-time transaction that may also lead to follow-on sales
Subscriptions	Software, games, and other online products are often sold by a monthly subscription
Pay-per-use	Some web products (travel sites and eBay are two examples) earn revenue on a 'per use' basis, with subscription or discounted volume purchases available
Referral revenue	Payments for referring traffic or customers to other web/mobile sites or Products.
Affiliate revenue	(Revenue sharing): finder's fees or commissions from other (typically ecommerce) sites for directing customers to them.
E-mail list rentals, influencers	Subscription and membership sites often rent their customer e-mail lists to carefully selected advertiser partners. Influencers can also be grouped here where companies pay for the influencer to try their product and share their experiences to their followers.
Back-end offers	Add-on sales from other companies offered as part of registration or purchase confirmation processes.
Advertising	Revenue derived from companies paying to advertise on your platform.

Revenue Model Examples

Sales		Affiliate revenue	
Subscriptions		E-mail list rentals	
Pay-per-use		Back-end offers	
Referral revenue		Advertising	

Revenue and Pricing

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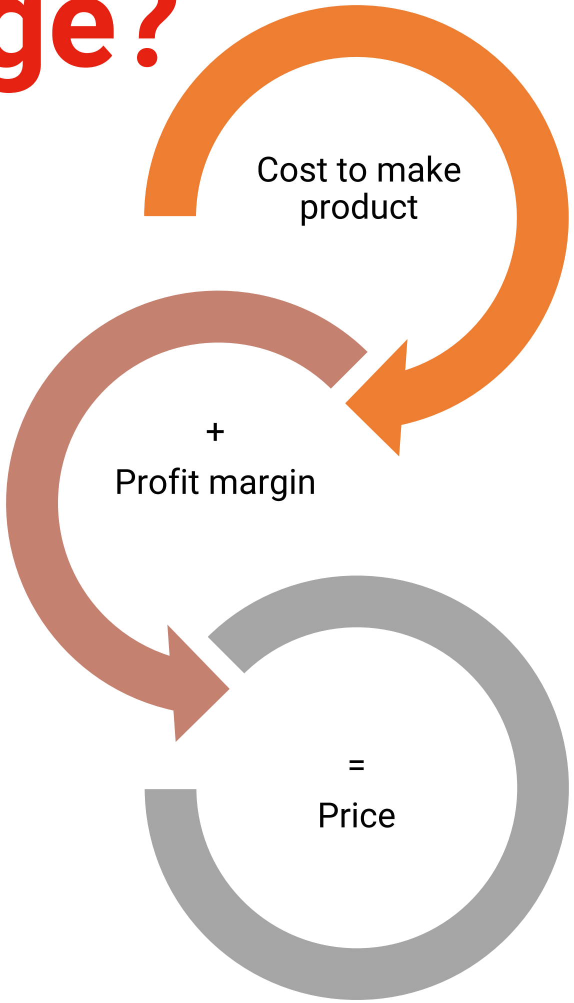
Question 3: How much should we charge?

Knowing how much to charge has been described as a combination of art and science.

There are many formulas for this.

And there are also many factors to take into consideration.

Question 3: How much should we charge?



This formula considers the very basics: how much a product costs to make, and a reasonable expectation of a profit margin. Sometimes this is called cost-plus pricing.

What this model does not consider is the strategies we might need to gain customers nor the role of competitors who are also fighting for the same customers.

Question 3: How much should we charge?

A more considered formular considers

- the **underlying costs of making the product**,
- the **positioning** in the market, and
- the **connection of value** to the customer.

So what does the customer need to be comfortable with in order to commit to your price?

What we are talking about is the customer's Return on Investment (ROI). ROI is a term more commonly associated with investment decision making.

In this context of pricing strategy, ROI refers to the perception from a business or customer that what they have bought from you is 'worth it'.

Question 3: How much should we charge?

Cont’d.

This means the value received from the purchase is not valued in monetary terms, but includes elements such as

- Did the purchase solve the problem?
- Has it improved productivity, effectiveness, or efficiency?
- Has it improved time and money elements of the business?
- Has it strengthened resources and partnerships?

For some businesses and consumers, ROI can relate to status or style, and sometimes just fun.

When we consider these factors, we can move beyond the simple cost-plus pricing model and explore other ways for pricing our solutions.

We will come back to costs later, but for now we will consider the range of pricing models.

Question 3: How much should we charge?

There are also a number of pricing models available. Some of the popular examples include:

Value Pricing	Based on the value delivered by the product rather than the cost itself. Investing or accounting software tools, unique patented products and pharmaceuticals can sometimes optimise profits with this model
Competitive Pricing	Positions the product against others in its competitive set, typically in existing markets
Volume Pricing	Designed to encourage multiple purchases or users, in situations ranging from office supplies to SAAS software
Portfolio Pricing	For companies with multiple products and services, each with a different cost and utility. Here the objective is to make money with the portfolio, some with high markups and some with low, depending on competition, lock-in, value delivered, and loyal customers

Question 3: How much should we charge?

Continued:

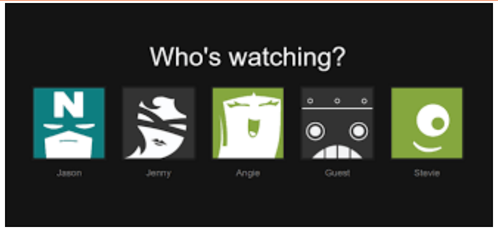
Razor/razor blade Pricing	Part of the product is free or inexpensive, but it pulls through highly profitable repeat purchases on an ongoing basis. (Think of the cost of ink-jet printers compared with the cost of the ink.) Often challenging for startups due to the upfront cost.
Subscription	While now thought of as a software strategy, the Book of the Month Club pioneered this for physical products
Leasing	Lowers the entry cost for customers. Provides constant earnings over a period of years
Product-based pricing	Based on a multiple of actual product costs. Usually for physical goods. (Typically priced for maximum revenue/profit versus volume) This calculation is very different for a web/mobile product, where the incremental cost of a new customer is practically zero, as it is for a multiplayer game app that adds, say, 50 new customers to its system at a cost measured, at most, in pennies per customer.

Pricing Model Examples

Value Pricing

Anything sold in an airport lounge

Volume Pricing



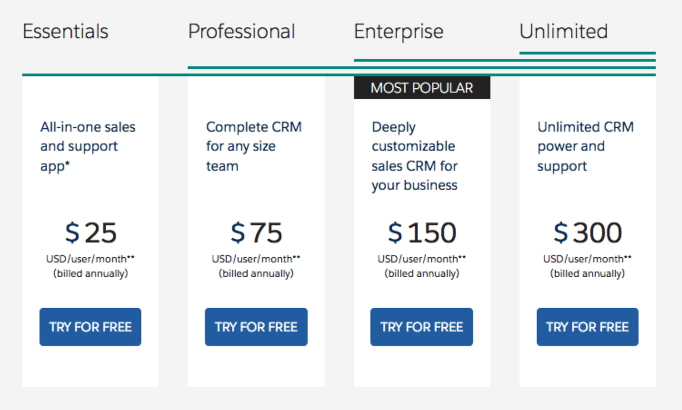
Competitive Pricing

McDonald's

KFC

HUNGRY JACK'S

Portfolio Pricing



Pricing Model Examples

Razor/razor blade Pricing

Leasing

Subscription

salesforce

xero

NETFLIX

Product-based pricing

Total Cost of Ownership/Adoption (TCO)

The Total Cost of Ownership/Adoption (TCO) is a tool to help build an understanding of the total cost required for a customer to buy and use your product.

For Business Products	For Consumer Products
• Do customers need to buy a new computer to run the software? • Do they need training to use the product? • Do other physical or organizational changes need to happen? • What will deployment across a whole company cost?	• Measure the cost of "adopting" the product to fit consumer needs. • Do customers need to change their lifestyle? • Do they need to change any part of their purchasing or usage behaviour? • Do they need to throw away something they use today?

Revenue and Pricing

1. How many will we sell?
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Question 4: Do Revenues Point to a Business Worth Doing?

- You have to do more than multiply the volume by the average selling price to get the answer to this question, but don't worry—this answer doesn't need to be precise just yet.
- Remember, the goal of customer discovery is to **refine a business model** enough to test it on a larger scale in the next step, customer validation.
- So at this point, with a rough view of the gross revenue and all the fixed and variable costs involved, make a rough computation of the following:

    1. Is the revenue adequate to cover costs in the short term?
    2. Will the revenue grow materially if not dramatically over time?
    3. Does the profitability get better as the revenues get bigger?

Again, this is a rough, back-of-the-envelope calculation used only to decide if what you found in discovery moves your forward to customer validation.

It's not an accounting exercise.

Connecting it all together

Revenue stream and pricing interact with the value proposition, the channel, and other lean canvas components.

That means there will be lots of iterating and pivoting.

The revenue stream hypothesis will be tested repeatedly before you lock it in:

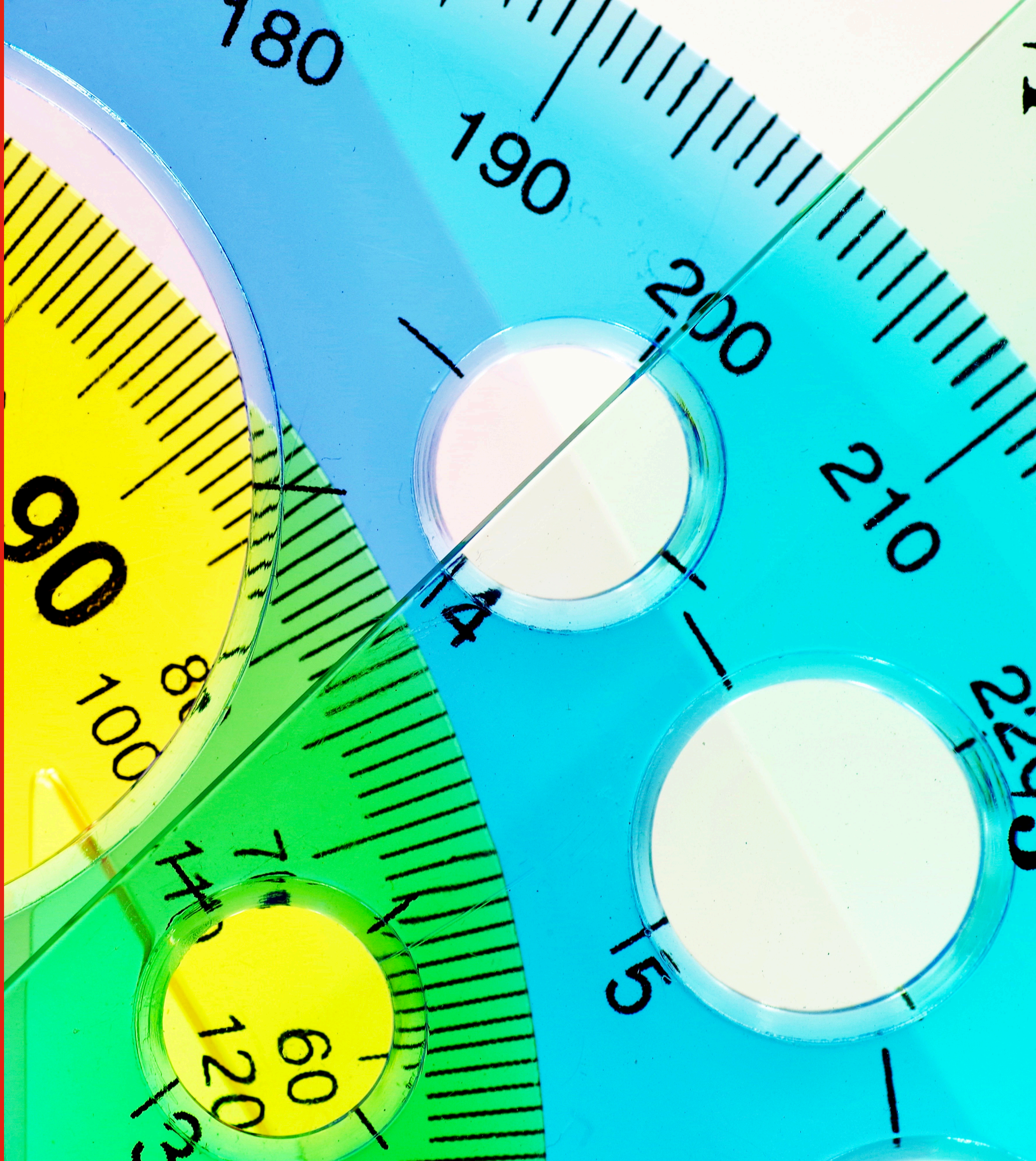
- Firstly in the customer discovery discussions
- Then with more customers as part of the customer validation exercises
- Followed by the drafting of the revenue stream strategy where your calculations are further informed and under greater scrutiny to ensure the maths (and the road to profit) stacks up.

Connecting it all together

Ultimately, only one answer matters:

Can we generate enough revenue, profits and growth to make this business worth our time and energy?

Key Metrics



Key Metrics

For **established businesses**, the way to measure success can be easily described by the amount of profit the company makes. There are many iterations of this, such as increased company valuation and stock market price, shareholder returns, or perhaps growth rates and market share dominance.

For **start-ups**, these types of metrics aren't helpful. It is unrealistic to expect to turn a profit in the short term. The Lean Canvas considers different ways to measure success and impact which is more relevant to the early phase of the company.

Key Metrics

According to Maurya (2012), early phase start-ups should focus on answering questions around product fit for your key customers.

In this section we cover some of the ways this can be achieved.

The ‘Ellis’ Test

While surveys are not considered optimal tools for determining insights around customer needs and how well the product meets these requirements, the ‘Ellis test’, named after entrepreneur Sean Ellis, provides one way to check if you are on the right track.

(Ellis in Maurya, 2012 p156)

The 'Ellis' Test

Using this approach, the key question to ask earlyvangelist customers is:

How would you feel if you could no longer use [product]?

1. Very disappointed
2. Somewhat disappointed
3. Not disappointed (it isn't really that useful)
4. N/A – I no longer use [product]

If you find that over 40% of your users are saying that they would be "very disappointed" without your product, there is a great chance you can build sustainable, scalable customer acquisition growth on this "must have" product. This 40% benchmark was determined by comparing results across hundreds of start-ups. Those that were above 40% are generally able to sustainably scale the businesses; those significantly below 40% always seem to struggle.

(Ellis in Maurya, 2012 p156)

Other Key Metrics

Another important metric in the early phase of start-ups is to demonstrate that you have retained your earlyvangelist customers. Maurya advises a retention rate of 40% from this key customer segment as an important benchmark number for demonstrating you have built something that is needed by this cohort (2012, p159).

Metrics do not always have to focus on customer satisfaction and retention. Metrics can also be used to help drive team performance and to reach important development stages of your prototype, minimum viable product, and final product.

Other Key Metrics

So what do you include in this section of the Lean Canvas?

The metrics you and your start-up founders believe to be the most important for success.

By clearly stating them in your business plan, you are committing to these outputs, which hopefully point you in the right direction towards future business success.

Additional Reading/Viewing

The video series by the Fitzroy Academy provides an excellent overview of the concepts covered today:

- **Cost structure – Lean, 7 of 10** https://youtu.be/Cx0lAIw0pIs (7 mins 03)
- **Revenue streams – Lean, 6 of 10** https://youtu.be/uyetDHxT_R0 (6 mins 17)
- **Key metrics – Lean, 8 of 10** https://youtu.be/P-D12ds30Is (6 mins 57)

Thank you