LA TROBE UNIVERSITY

All kinds of clever

CSE3PPE / CSE5003

Professional Practices and Entrepreneurship in I.T.

Lecture 2

Semester 1 2024

Tutorials/workshops/practicals

These commence this week:

Attendance is required and will be recorded

Lecture 2

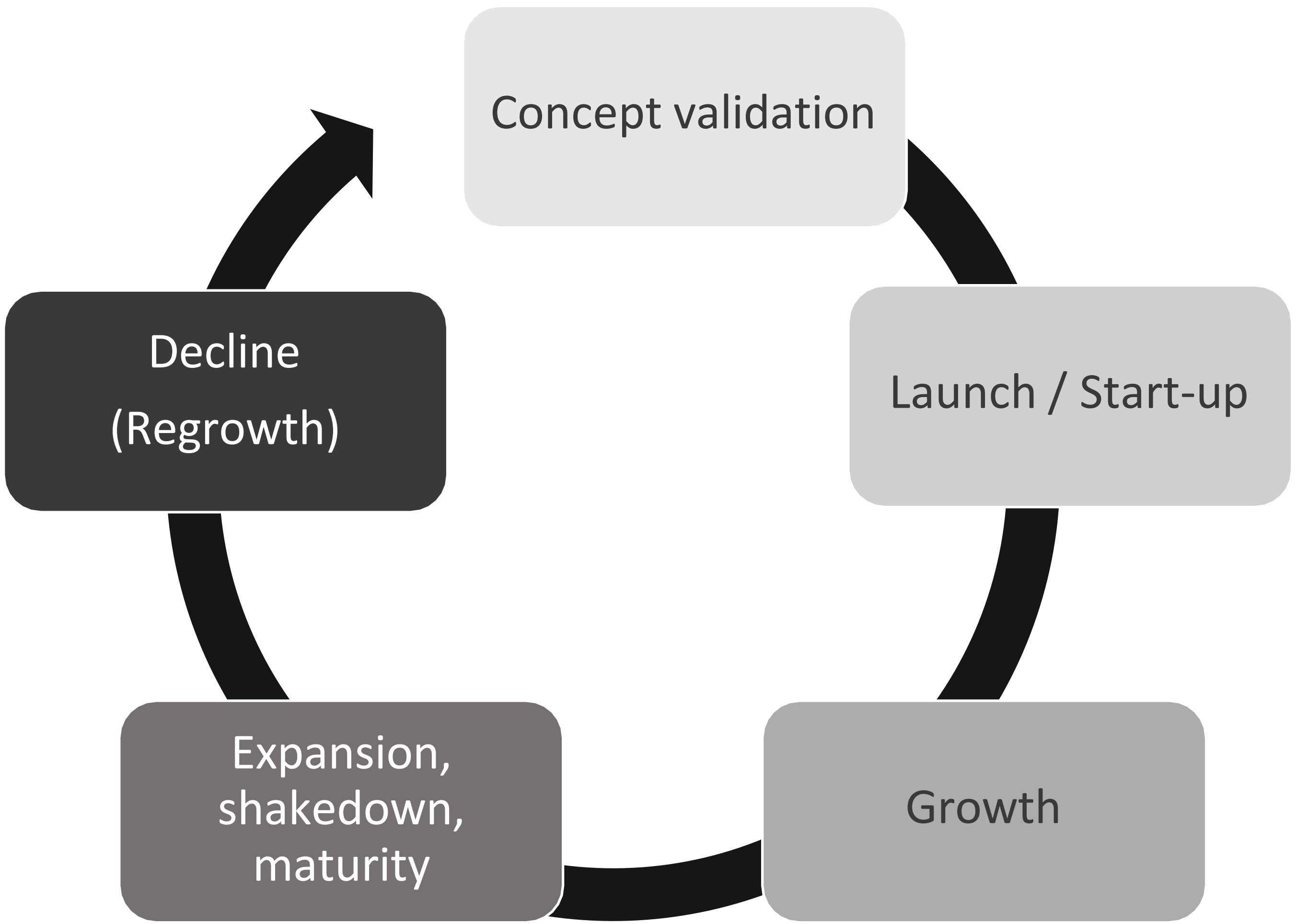
Innovation, Problem solving, and Entrepreneurial Expertise

Can you only have an ‘entrepreneurial mindset’ if you start a business?

Start-ups and the business lifecycle

- New ideas and ways of doing things are beneficial across all life stages of a business.
- When we talk about a business lifecycle, what exactly do we mean?

The Business Lifecycle



Concept validation

In this phase, the business is more of an idea than an actual business. This idea is being developed and tested with potential customers, asking questions such as:

- Is this solving a problem or providing a benefit for potential customers?
- Who are these customers, and are they willing to buy this solution/benefit?
- What are these customers willing to pay?
- Does this have the potential to be profitable?

Innovation and risk taking is very high in this space and is considered essential for future success.

Launch / Start-up

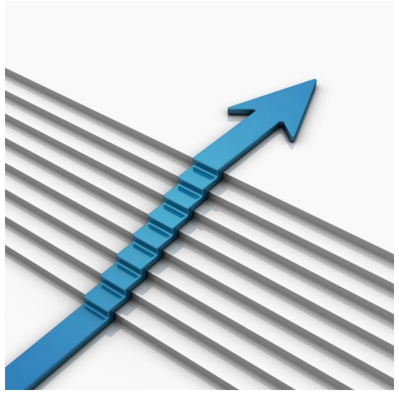
In the launch phase, businesses have a concept they have some confidence that customers will be interested in.

In this stage they continue to take on risks that might help them succeed. Further opportunities for innovation can occur in this space, as the risk versus reward ratio is favourable for companies to experiment and learn from their experiences.

In this phase it is unlikely that businesses are making enough money to record a profit.

They are using start-up funding and hoping their experiments will lead to sales that can sustain their future business activities and eventually become profitable.

Growth



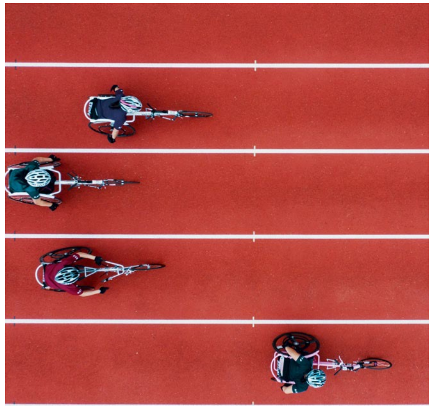
In this phase, businesses have determined which of their risks are succeeding, and are positioning their energies to reach and secure as many new customers as possible.

This can be a time of rapid change as businesses look for ways to scale: hire new people, increase manufacturing, improve production outputs.

This is also the time where businesses may see a profit for the first time.

At the beginning of their growth phase, companies in this space often do not have enough money from sales to support their growth and will require additional capital/funding to support this phase.

Expansion, shakedown and maturity



As the companies realises growth and starts to see profit, new challenges emerge.

The biggest one is competitors who can see the success and want in on this space.

Sales may still be growing, but not at the same rate as your growth phase. That is okay, as this changing position also provides opportunity. With new customers on board, now is a good time to consider other ways to keep your customers. Diversification of your product or services can be seen in this space.

As the growth in profit slows, businesses start to consider ways to provide the same service or products in a more efficient manner, thereby reducing some of their overheads to help protect their profit margins.

Decline or regrowth

In this phase, companies will begin to lose out on new customers or lose existing customers as sales slow and new products, competition or new ways of doing things emerge in the market.

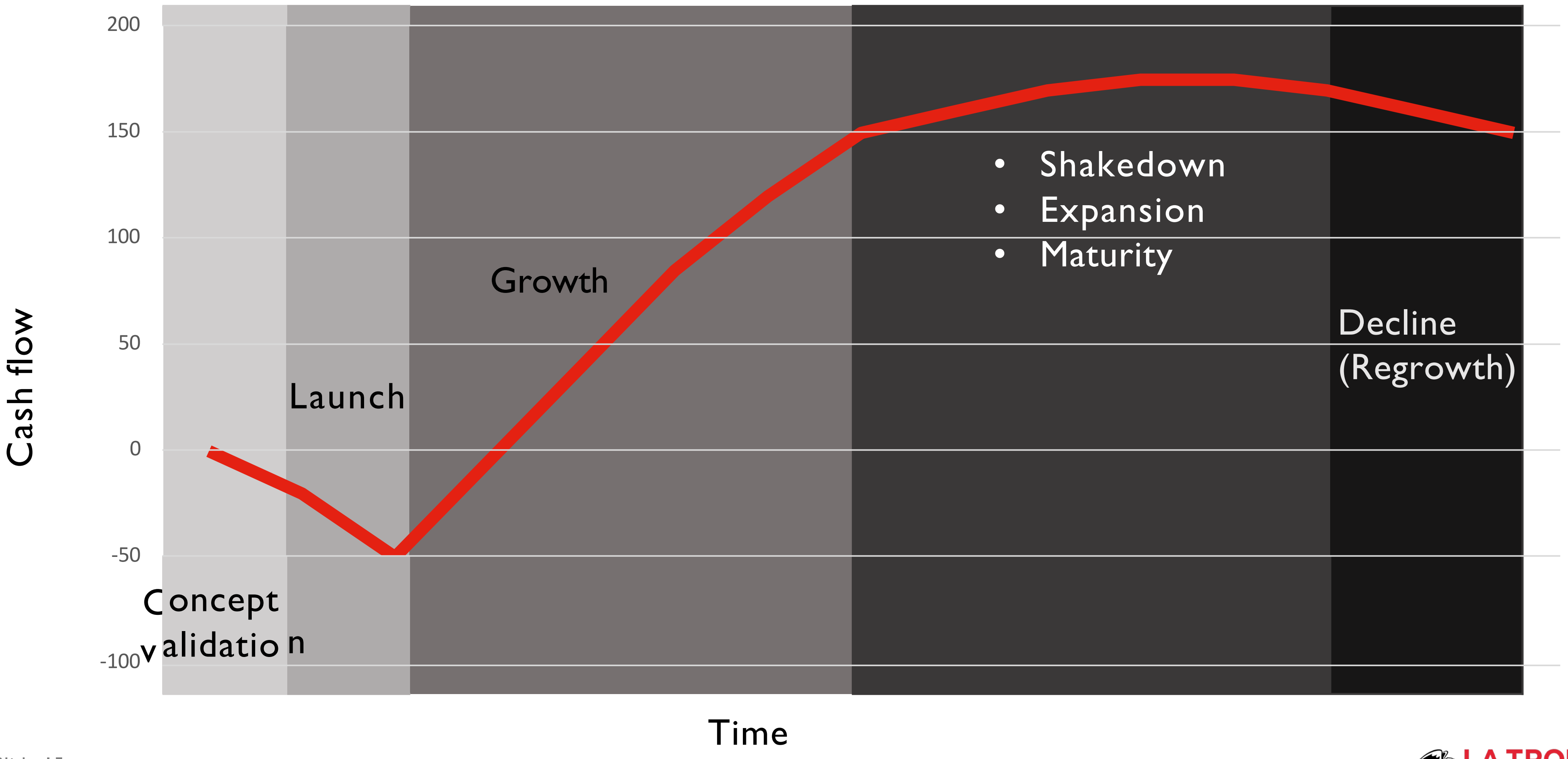
Here, companies are faced with challenges around how to stay profitable with the sales they do have or explore new ways or developing new business.

You might see companies taking on cost cutting exercises, looking for efficiency gains, or investing in new business opportunities.

This type of activity comes with risk, so companies must consider how they can manage a new risk appetite for these activities.

Image source: https://harrypotter.fandom.com/wiki/Phoenix

The Business Lifecycle



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The role of risk taking

A major factor that changes throughout the business lifecycle is **risk** and the willingness of companies to take on different types of risk.

Introducing new techniques to capture new markets, new products or new ways of doing things all come with increased risk.

This is because not everything is 100% guaranteed to work.

Attempts at doing things in a different way, and finding out these do not work, is a costly exercise. The willingness and ability to go through this process is known as the **risk appetite**.

Risk in the business lifecycle

Risk appetites vary across the business lifecycle.

New businesses are more interested in trialling different things as they work out which technique, which product, which strategy might work best for them. They must take risks to succeed. They are still working out how the best way that can do this, so their willingness to trial new things, take brave steps and ‘have a go’ is much higher than in other phases of a company lifecycle.

For established companies this risk appetite is typically much lower. Companies who have worked out who their customers are, what they want and how much they are willing to pay for their goods and services are less interested in taking risks that might threaten their revenues and profits.

Case Study: Kodak's gamble

One of the most famous case studies in business risk is the story of Kodak.

Kodak was created in 1892 and was the world leading manufacturer of film products. At one point they employed 30,000 people to manufacture film.

Kodak also invested in the development of new technology.

In 1975 they were the first to invent the digital camera (then called the filmless camera).

At the same time they had a market share in the United States of 90% of all film sales and 85% of all camera sales (Wikipedia 2021).

In 2012 they declared bankruptcy.

Why Kodak Willingly Ignored the Future of Photography

This video runs for 7 mins and 26 seconds

Start-ups and Established Companies

What's the difference?

A start-up is a temporary organization designed to search for a repeatable and scalable business model.

A start-up can be a new venture or it can be a new division or business unit in an existing company.

If your business model is unknown – that is, just a set of untested hypotheses —
you are a start-up searching for a repeatable and scalable business model.

Once your business model (market, customers, features, channels, pricing, Get/Keep/Grow strategy, etc.) is known, you will be executing it.

Search versus execution is what differentiates a new venture from an existing business unit.

Clarification: many self employed and small business operators are sometimes confused with being called a start-up. If you know your business model and are able to execute it, you are not in a start-up phase. You are a small business.

Start-ups and Established Companies

Start-ups **are not** smaller versions of larger companies.

Start-ups **develop, test and search** while large companies **spend** their core time **executing**.

Entrepreneurs: who are they?

Entrepreneurship centres on new ways of doing and thinking to develop potential businesses that make a difference.

As there is more study on entrepreneurship, many people have asked: Are entrepreneurs born or made?

Global Entrepreneurship Monitor (GEM)

One of the biggest collections of data on entrepreneurship is an annual assessment called the Global Entrepreneurship Monitor, or GEM. This annual data collection first began in 1997 in the UK and has since expanded to include fifty economies and over 150,000 interviews. The data provided insights on conditions that support entrepreneurship, profiles on entrepreneurs, and other success factors (Bosma et al 2020).

The 2019/2020 Global Report notes several important factors in successful entrepreneurs.

Bosma, N., Hill, S., Ionescu-Somers, A., Kelley, D., Levie, J., Tarnawa, A. (2020) Global Entrepreneurship Monitor 2019/2020 Global Report. Global Entrepreneurship Research Association, London Business School, Regents Park, London. Retrieved 2 September 2021 from https://www.babson.edu/media/babson/assets/global-entrepreneurship-monitor/2019-2020-GEM-Global-Report.pdf

Global Entrepreneurship Monitor (GEM)

1. **Access to resources.**

   In wealthier countries, entrepreneurs are more associated with those who can access resources such as finance to support their startup activities.

   However, in lower-income economies there are higher rates of motivation to start a business, especially in the absence of other ways to source an income (Bosma, et al 2020 p38)

2. **Opportunity to explore and pursue entrepreneurial activities as part of an existing job.**

   For this factor, Australia is considered to rank highest in the economies included in the GEM assessment.

Bosma, N., Hill, S., Ionescu-Somers, A., Kelley, D., Levie, J., Tarnawa, A. (2020) Global Entrepreneurship Monitor 2019/2020 Global Report. Global Entrepreneurship Research Association, London Business School, Regents Park, London. Retrieved 2 September 2021 from https://www.babson.edu/media/babson/assets/global-entrepreneurship-monitor/2019-2020-GEM-Global-Report.pdf

Global Entrepreneurship Monitor (GEM)

3. **Opportunities to be sponsored in their entrepreneurial activities.**

   The level of support available for emerging entrepreneurs is considered a factor in the success across many of the economies (Bosma, et al 2020 pp42-43)

4. **To be purpose driven**

   The 2020 report found an increasing trend of entrepreneurs to not just be motivated by wealth from the success of their ventures, but more importantly, to make a difference (Bosma et al 2020 p44). The drive to make a difference in the world is more concentrated in women entrepreneurs than it is for men (p48).

Bosma, N., Hill, S., Ionescu-Somers, A., Kelley, D., Levie, J., Tarnawa, A. (2020) Global Entrepreneurship Monitor 2019/2020 Global Report. Global Entrepreneurship Research Association, London Business School, Regents Park, London. Retrieved 2 September 2021 from https://www.babson.edu/media/babson/assets/global-entrepreneurship-monitor/2019-2020-GEM-Global-Report.pdf

Entrepreneurial Age

Is age a factor in entrepreneurship?

You can argue that the young are more risk takers, while the older population draw on their experience and previous attempts at starting a business.

The reality is that the average age of entrepreneurs can differ between countries for a number of reasons.

Entrepreneurial Age

In the 2019/2020 GEM Global Report, the range of ages of entrepreneurs from the total early-stage entrepreneurial activity (or TEA, considered the early phase of the startup) is shown below for the Asia and Pacific region.

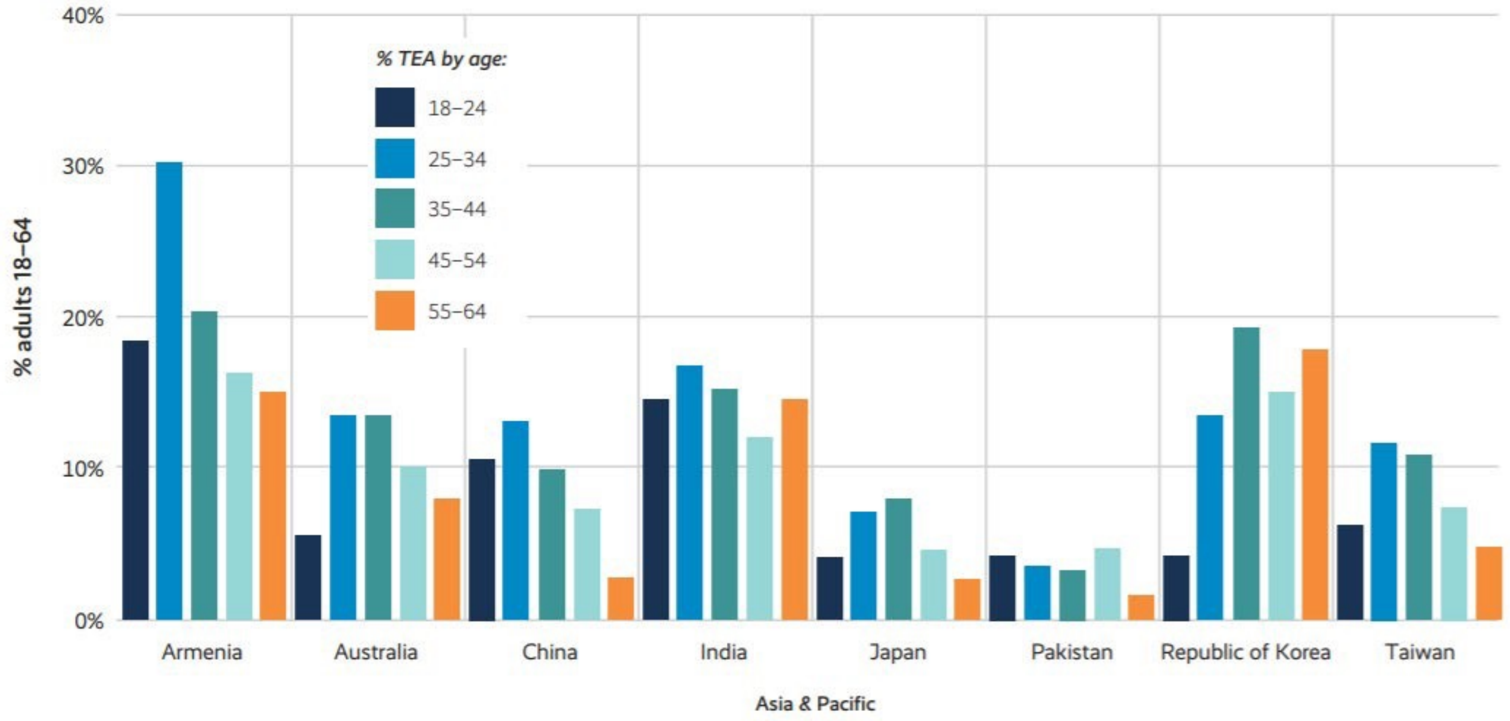


FIGURE 5.3 The age profile of TEA (% adults): Asia & Pacific
Source: GEM Adult Population Survey, 2019

Source: Bosma et al 2020 p59

Gender

Is gender is factor in entrepreneurship?

In 2018, academics from Columbia Business School, Columbia University and Harvard Business School published research that explored why men were more successful at attracting start up funding compared to women (Kanze, Huang, Conley, & Higgins, 2018).

The researchers found a bias in the way the entrepreneurs were questioned by potential investors.

Men were asked more promotion-focused questions (eg, how they will win), while women were asked prevention-focused questions (eg, how they will not lose).

The framing of the questions in this way prompted the men to respond with promotion-focused answers, and women with prevention-focused answers. These questions and their responses created a sense of confidence and trust for the men entrepreneurs, while the women entrepreneurs found their confidence undermined.

Kanze, D., Huang, L., Conley, M. A., & Higgins, E. T. (2018). We ask men to win and women not to lose: Closing the gender gap in startup funding. *Academy of Management Journal, 61*(2), 586. doi:10.5465/amj.2016.1215

Gender

Is gender is factor in entrepreneurship?

The researchers found this unintentional double standard to influence how investors made their funding decisions. This occurred regardless of whether the investor was a man or woman.

One way to tackle this is for women entrepreneurs to be ready for this type of questioning, and to be better prepared to respond to negative framing with a positive-oriented response. This was shown to help influence more positive results for their startups.

(Kanze et al., 2018)

Race

Is race a factor in entrepreneurship?

Yes. Funding for start-ups, particularly in European, North American and Australian settings, have historically favoured white entrepreneurs.

Crunchbase is a US based database on all things entrepreneurship, including details on start-ups and their progression through funding rounds, connections to potential venture capitalists, and overall business tracking.

In recent years they have begun recognising the decades of underfunding and centuries of systemic discrimination that has unfairly impacted Black and Latina start-ups, founders, and venture firms.

Race

Is race a factor in entrepreneurship?

According to a recent Crunchbase report on the diversity of investors and investment in start-ups:

Black entrepreneurs received just 1.2% of the record $137 billion invested in US start-ups in the first half of 2021.

(Women-only founded companies received just 2% over the same period)

(Wong 2021)

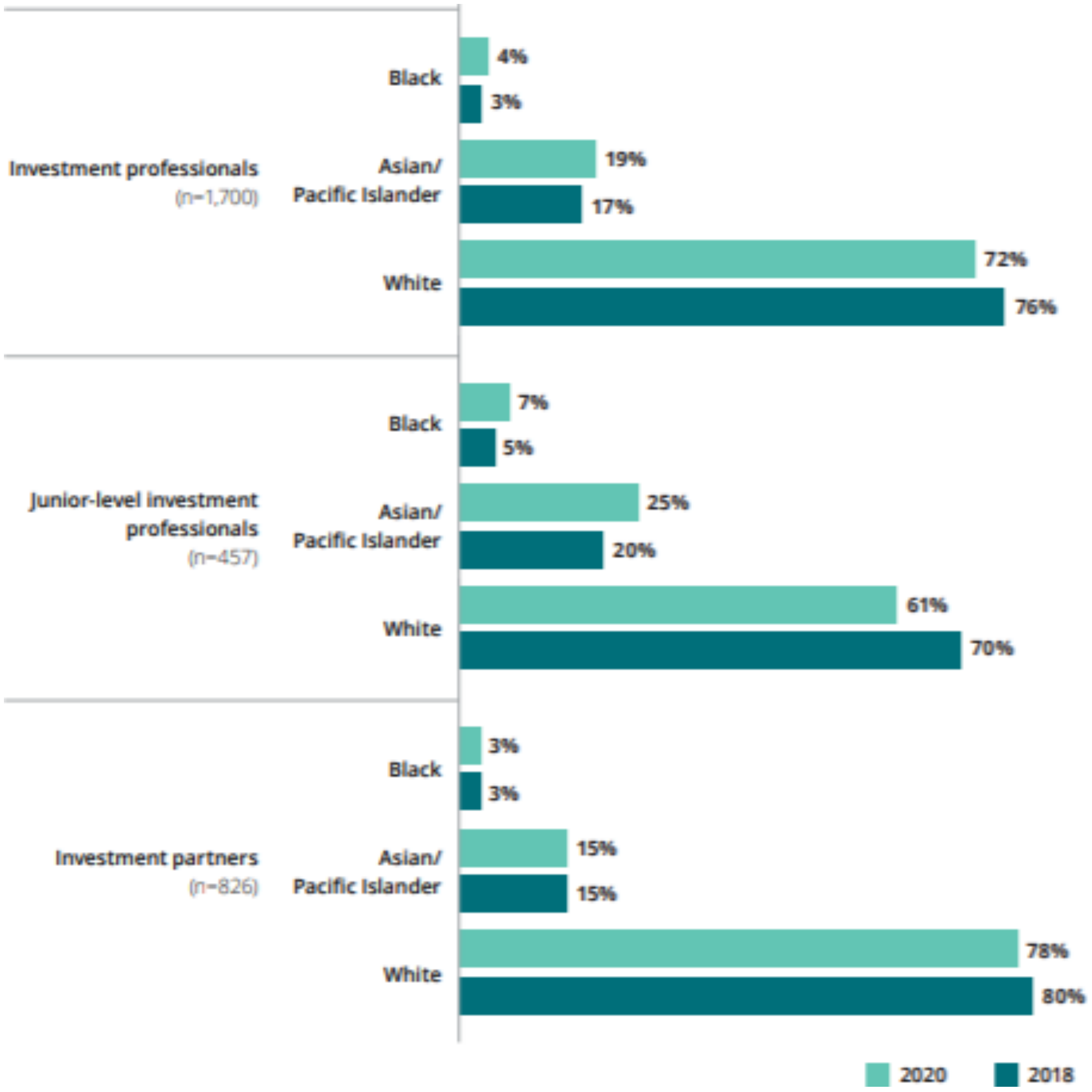
Wong, D. (2021) Reflecting on our progress: One year since the launch of Diversity Spotlight, Crunchbase. Retrieved 2 November 2021 https://about.crunchbase.com/blog/reflecting-on-one-year-of-diversity-spotlight/

Race

One challenge to increasing diversity in start-up founders and increasing their share of the investment monies available is to target the source of funding:

venture capitalists.

A 2021 report by NVCA, Venture Forward and Deloitte highlighted the lack of diversity across venture capitalist workforces and in leadership positions:



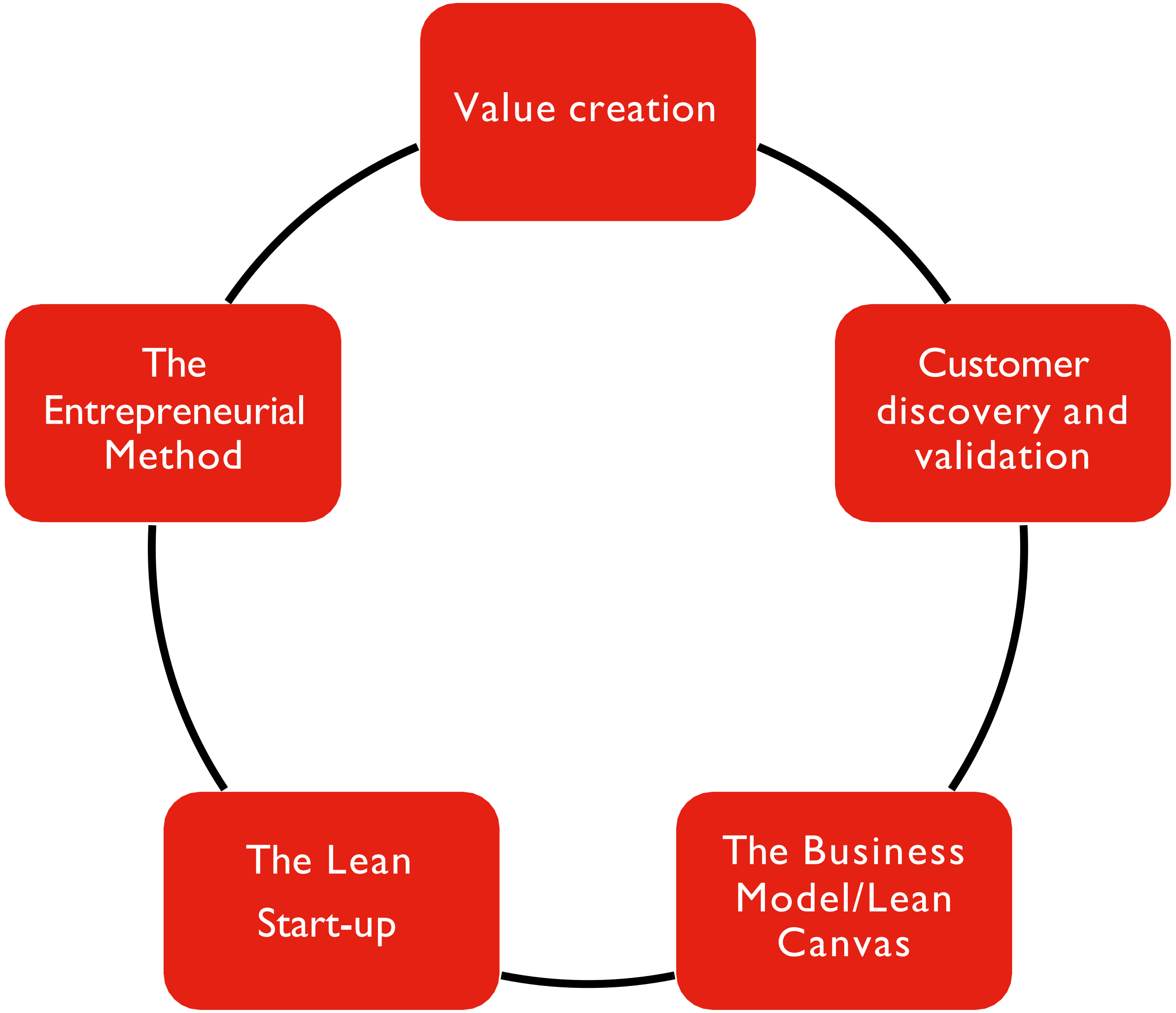
NVCA, Venture Forward, Deloitte (2021) VC Human Capital Survey, Third edition. Retrieved 2 November 2021 https://www2.deloitte.com/us/en/pages/audit/articles/diversity-venture-capital-human-capital-survey.html

What is the most important factor in the success of a start up?

This video runs for 6 mins and 40 seconds

Five Pillars of Entrepreneurial Expertise

The Five Pillars



Pillar 1: Value Creation

The concept of "value" has many definitions.

Value is defined as whatever customers believe it to be.

- Expert technology entrepreneurs know intuitively that value creation is the purpose of business.
- In fact, it doesn't matter if you are a technology entrepreneur or a fast-food entrepreneur (or any other kind of entrepreneur).
- Your products and services **must create value** for customers.
- There are probably as many ways to create value as there are people on the planet.

- Technology entrepreneurs can develop successful ventures based on widely different **value propositions**

Pillar 1: Value Creation - Value Proposition

A **value proposition** is what a venture tells its customers about the value it intends to provide to them.

- Creating value requires vision, passion, and an **ability to adjust to customer needs** and constantly evolving economic, social, and technological trends and conditions.
- Successful technology entrepreneurs realize that steadily advancing technologies and technological form factors must be taken into consideration in their product development and design processes.

For example, the value proposition for YouTube is: "Broadcast yourself."

- That simple statement, while not necessarily appealing to everyone, is the foundation of the online video-sharing revolution.

Pillar 2: The Customer Development Model

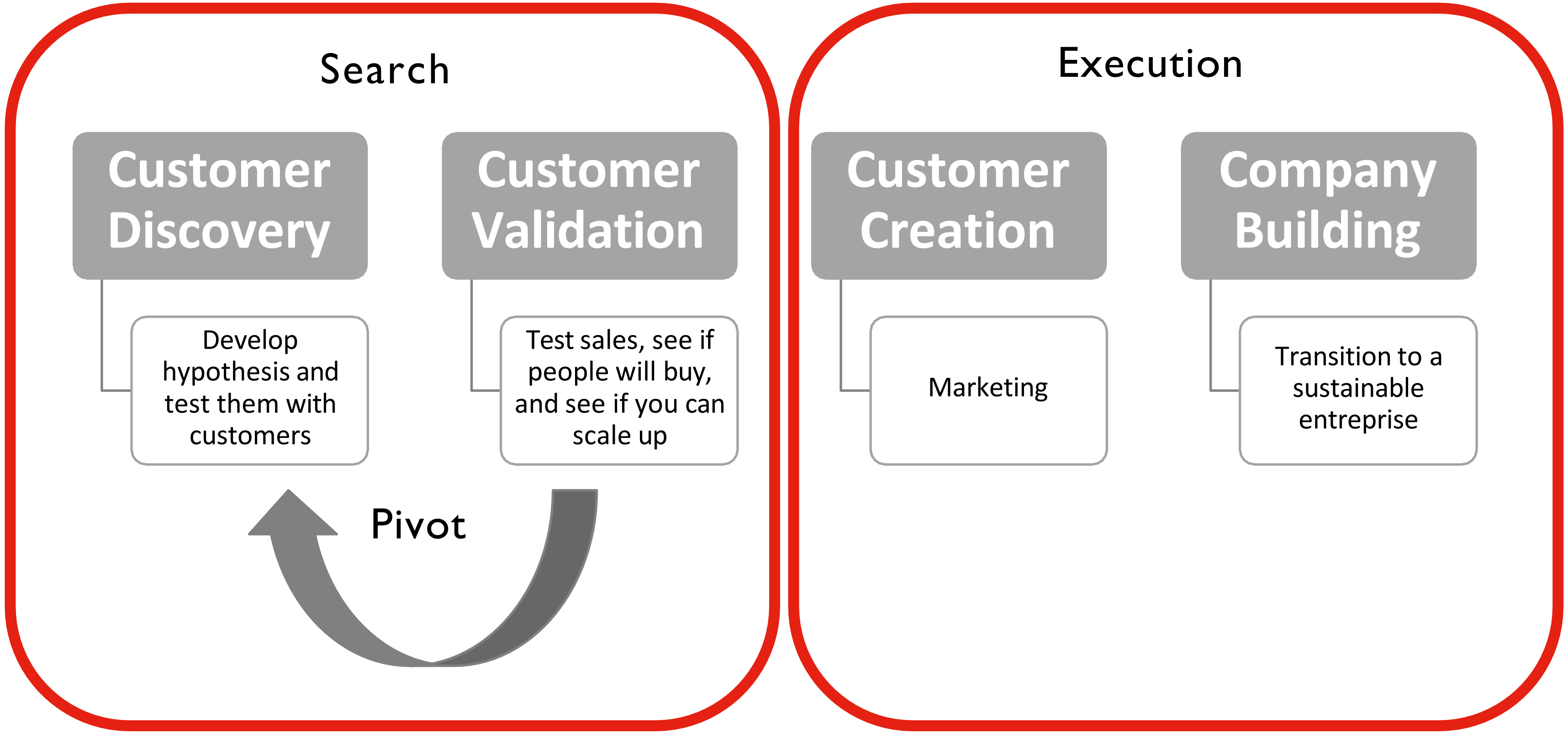
This was previously outlined in Lecture 1.

To recap:

- The **Customer Development Model** outlines all the customer related activities of an early stage company into their own processes, designed as four easy to understand steps:
  1. **Customer Discovery**: develop hypotheses and test them with potential customers
  2. **Customer Validation**: test sales to see if people will buy, and see if you can scale up.
  3. **Customer Creation**: marketing
  4. **Company Building**: transition to a sustainable enterprise

Most importantly, each step is iterative and can be repeated as needed.

Pillar 2: Customer Development Model



Each step is iterative and can be repeated as needed

Blank, S., Dorf, B. (2020) The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company, 2020. John Wiley & Sons, Incorporated pp55-59

Pillar 2: The Customer Development Model Customer Discovery Philosophy

A startup begins with the vision of its founders: a vision of a new product or service that solves a customer's problem or needs and how it will reach its customers.

Customer discovery is a process that validates whether your solution meets a potential customer's problem or need **before you spend time and money** developing your full product or service.

Otherwise you risk spending zillions and getting zeros in return.

The number one goal of customer discovery amounts to this:

Turning the founders' initial hypotheses about their market and customers into facts

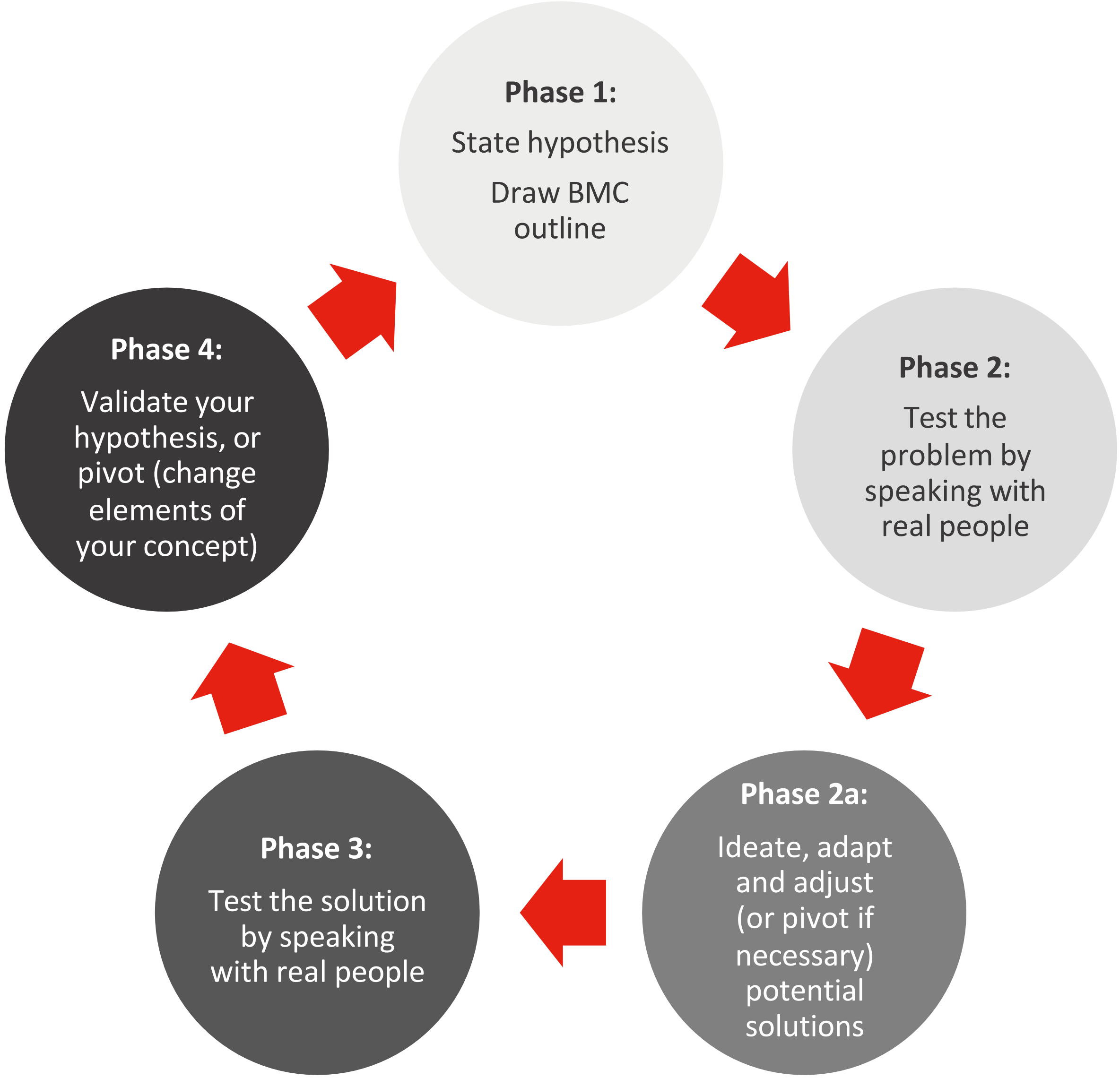
Pillar 2: The Customer Development Model
Customer Discovery Philosophy

This captures the philosophy:

1. Get out of the building / speak to real people
2. Search for the problem/solution fit
3. Develop the product for the few, not the many
4. Earlyvangelists (or early adopters) are the most important customers of all
5. Build a minimum viable product (MVP) first
6. Use the business model canvas as the customer discovery scorecard

Repeat the process and 'pivot' your concept as necessary.

Pillar 2: Customer Discovery Philosophy



Pillar 2: Customer Discovery Philosophy

- In Phase I you **deconstructs the founders' vision** into the nine parts of the business model canvas (product, customers, channels, demand creation, revenue models, partners, resources, activities and cost structure).
- In Phase 2 you conduct experiments to **test your "problem" hypothesis**. This helps you understand how important the problem is and how big it can become.
  - Based on the feedback from your experiments, you may need to **adjust your problem statement or solution concept**
- In Phase 3 you **test your "solution",** presenting your value proposition (product, pricing, features, and other business model components) and the minimum viable product to customers and compare their responses to the "pass/fail" goals you developed earlier.
- In Phase 4 you stop and assess the results of the experiments you've conducted and **verify** that you have:
  - a full understanding of customers' problems, passions, or needs confirmed
  - your **value proposition solves the problems, passions or needs** of your customers

Blank, S., Dorf, B. (2020) The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company, 2020. John Wiley & Sons, Incorporated pp55-59

Pillar 3: The Business Model / Lean Canvas

Which comes first: the business model or the validation of your business idea?

And are you still a start-up if you have committed to your business model?

According to Steve Blank:

1. You need planning before the plan, i.e. you need some real facts before you could write the Business Plan
2. Understand the customer discovery process first, then begin writing the business plan.
3. But you need to have a concept in place before you begin this

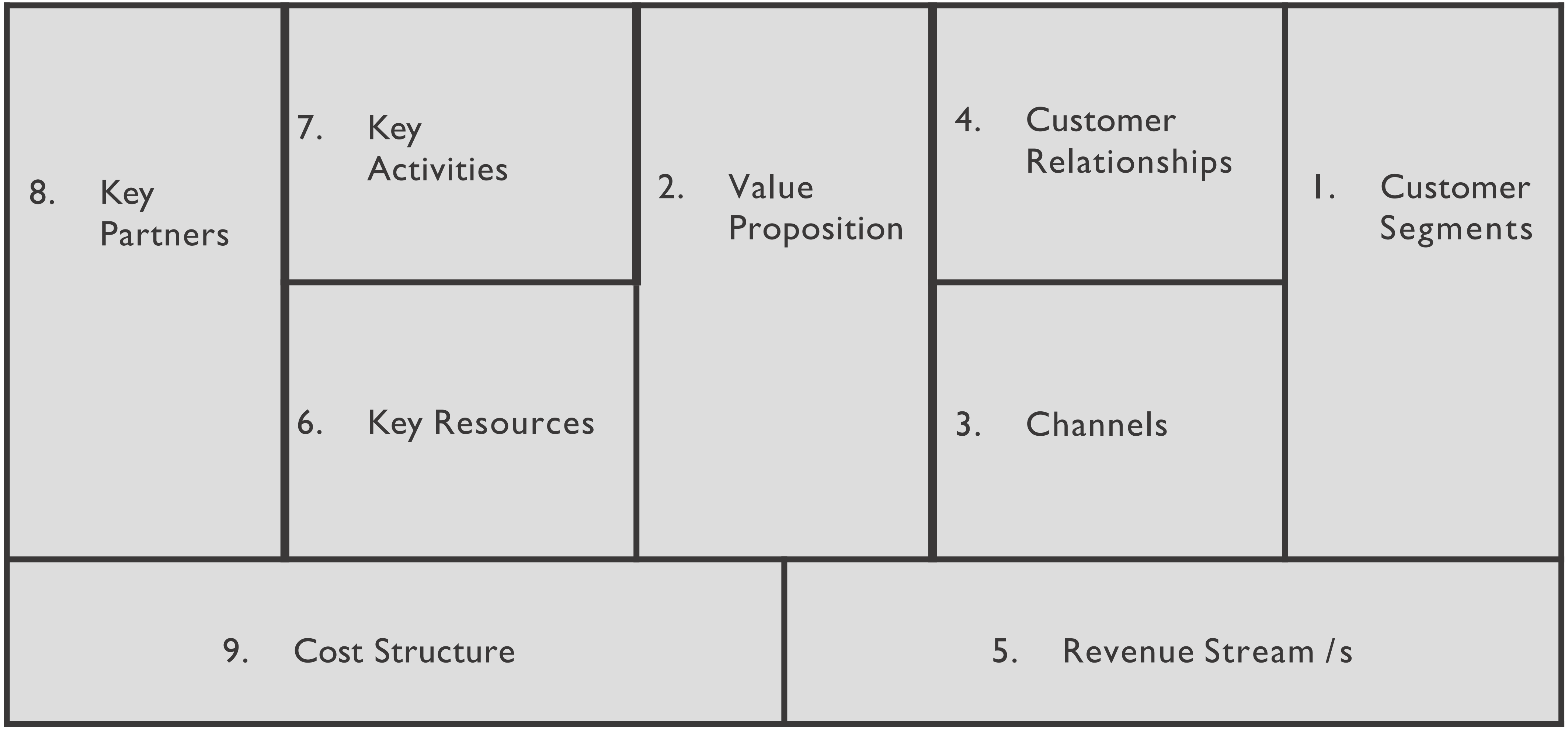
What do you do?

Pillar 3: The Business Model / Lean Canvas

The Business Model Canvas (BMC) is a one page overview of the essential elements of a business plan. There are nine categories outlined:

- Customer Segments
- Value Proposition
- Channels
- Customer Relationships
- Revenue Stream
- Key Resources
- Key Activities
- Key Partners
- Cost Structure

Pillar 3: The Business Model Canvas



Moving to the Lean Canvas

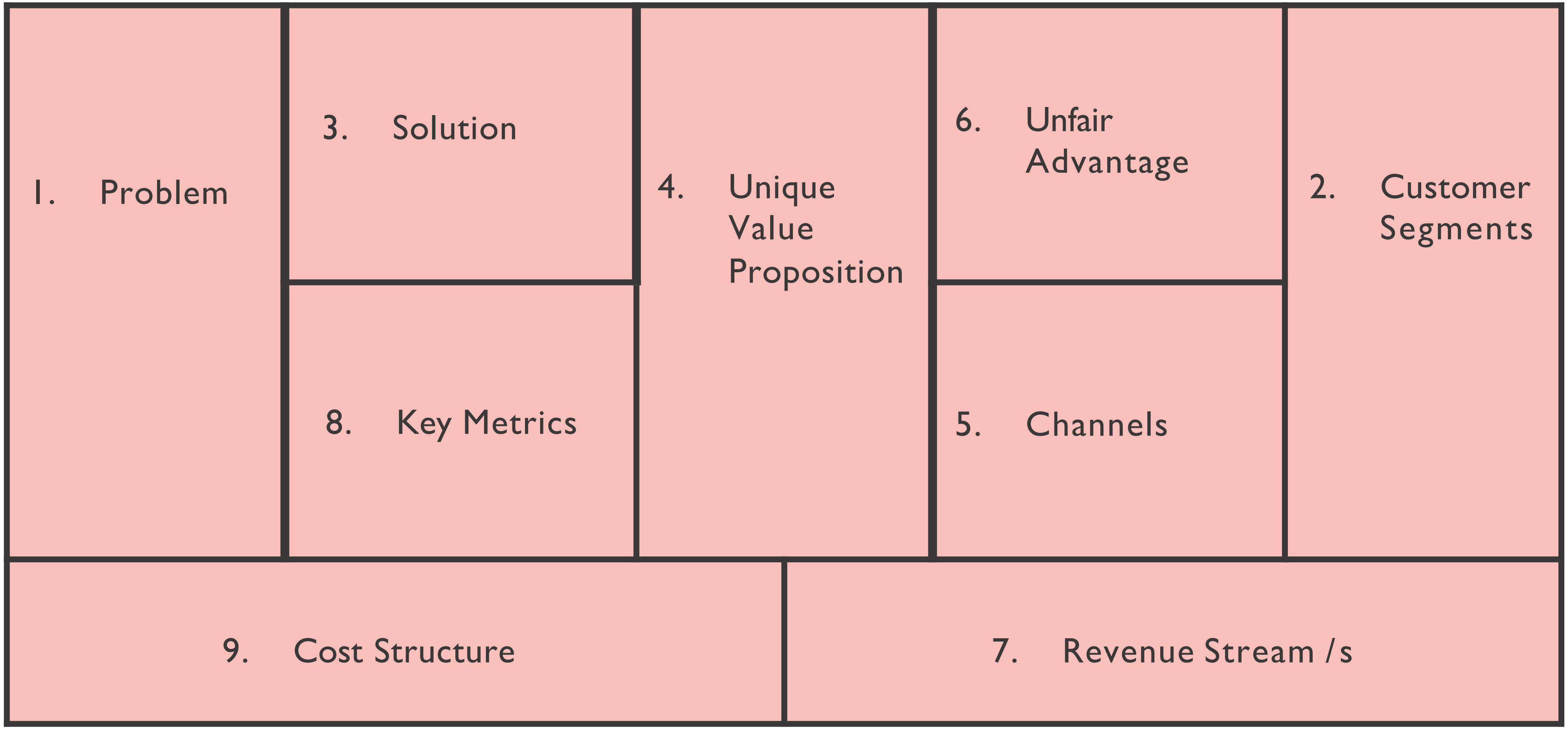
For a start-up, the level of detail for a business model canvas (BMC) can be challenging, particularly when you are still validating your hypotheses and experimenting on the best way to set up a successful venture.

Many early-stage entrepreneurs struggled with the BMC concept as a useful tool in the early phase of the start up space. From this struggle emerged a modified canvas that enabled founders to capture the key elements of the early business phase. This became known as the Lean Canvas.

The Lean Canvas encourages a focus on problem solving and the collation of data to prove or disprove hypotheses around business concepts.

The Lean Canvas has a similar layout to the BMC, and there are some overlaps with the categories, but many others are changed to focus on problem solving and measuring success, which are critical in the early stages of businesses.

The Lean Canvas



Maurya, A. 2012 *Running Lean, Second Edition* O'Reilly Media Inc 978-1-449-30517-8

Pillar 4: The Lean Startup

Businesses in the startup phase are yet to draw revenue from their product or idea.

Funding this phase needs to come from somewhere: boot strapping (self funding), friends and family, kickstarter or crowdsourcing, grants and accelerator programs, or third-party investors.

Each come with their own risks and benefits.

Regardless of how you might finance your startup operations, the lean philosophy has been embraced by many founders as the way to increase the chances of succeeding in getting your product or idea right for your customers.

Pillar 4: The Lean Startup

Lean Design is a concept around prioritizing your start-up efforts.

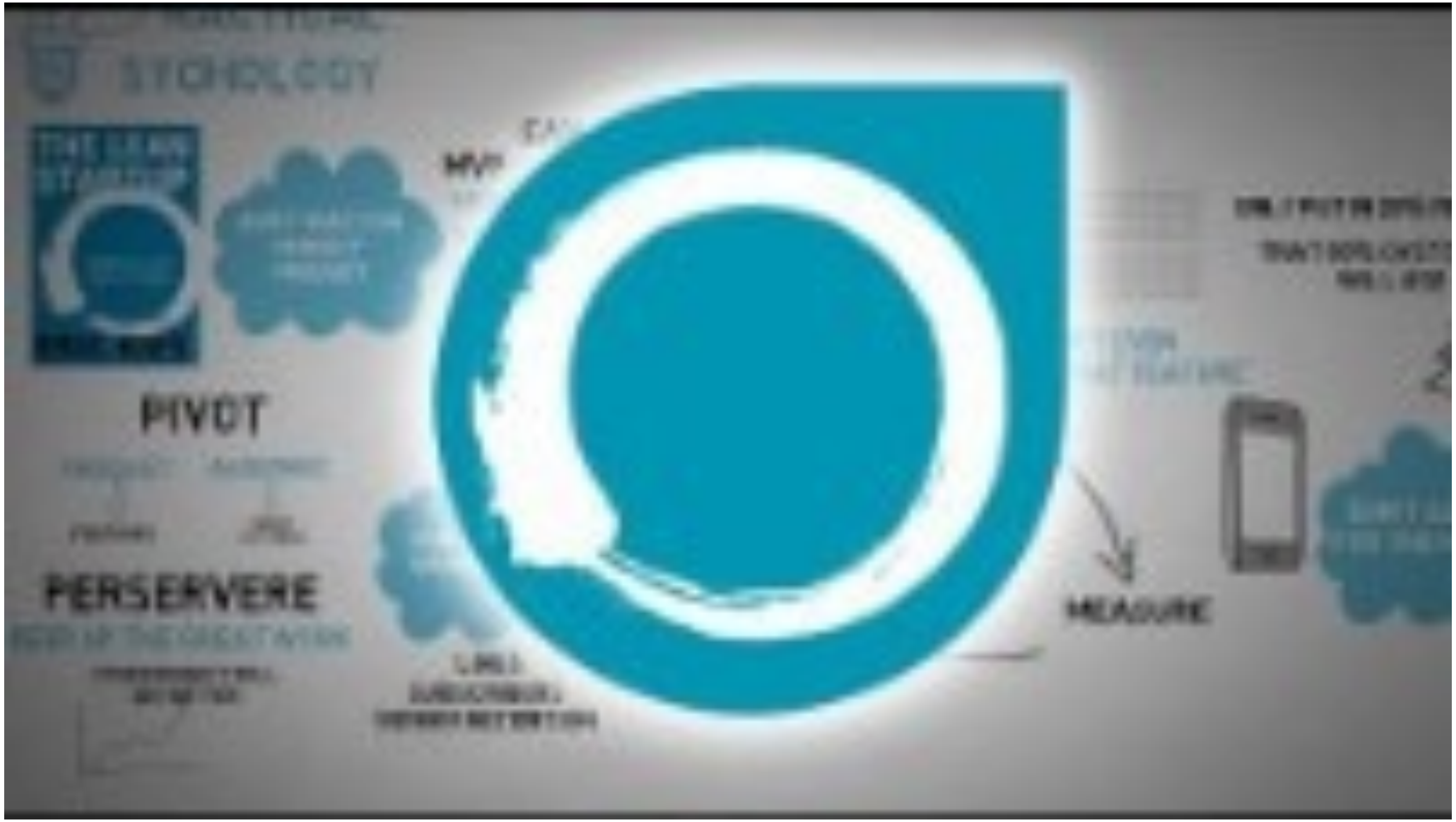
It embraces an approach that focuses on **optimising the resources you have before they run out**.

A lean design approach means you should prioritise your efforts on speed, testing, validating, learning, and reiterating in short periods of time.

Many think the biggest resource risk in a start-up is money, however in *Running Lean*, Ash Maurya argues that the focus should be on the resource of **time**.

Maurya, A. 2012 *Running Lean, Second Edition* O'Reilly Media Inc 978-1-449-30517-8

The Lean Start-up (Book Review)



This video runs for 3 mins and 16 seconds

Pillar 5: The Entrepreneurial Method

The philosophy that surrounds entrepreneurial approaches is one that continues to evolve.

Some academics have drawn comparisons between the scientific method and the entrepreneurial method. Both involve coming up with a hypothesis, and then testing it through a series of experiments (ie, engaging with potential customers) to determine if the hypothesis can be disproven.

In *The Entrepreneurial Method: As the Foundation of Entrepreneurial Expertise*, Duening and Metzger (2014) argue the Entrepreneurial Method comprise the following moral values:

- "A focus on **value creation** as the primary purpose of business
- Accepting the **judgements of the marketplace** concerning the offerings of a new venture
- An abiding **respect for private property rights and contractual obligations**, and
- A recognition that **failures are an inevitable part** of the start-up process"

Duening, T. N., PhD., & Metzger, M. L., PhD. (2014). The entrepreneurial method: As the foundation of entrepreneurial expertise. *American Journal of Entrepreneurship*, 7(1), 78-101.

Workbook

This subject is supported by a workbook for each week. This is found in the LMS.

Videos from today's lecture are located there for your review.

Additional reading:

- Blank, S., Dorf, B. (2020) The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company, 2020. John Wiley & Sons, Incorporated (chapters 3 and 4)
- Duening, T., Metzger, M. (2014). The entrepreneurial method: As the foundation of entrepreneurial expertise. *American Journal of Entrepreneurship, 7*(1), 78-101
- Maurya, A. (2012) Running Lean, Second Edition. O'Reilly Media Inc

Thank you