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HUB

Work package:	WP3. DGE Knowledge Factory
Deliverable:	D3.2. Development of DGE upskilling program
Comment/status:	V1.0
Prepared by:	University of Malaga
Date:	June 2023

Competence area: Envisioning sustainable future
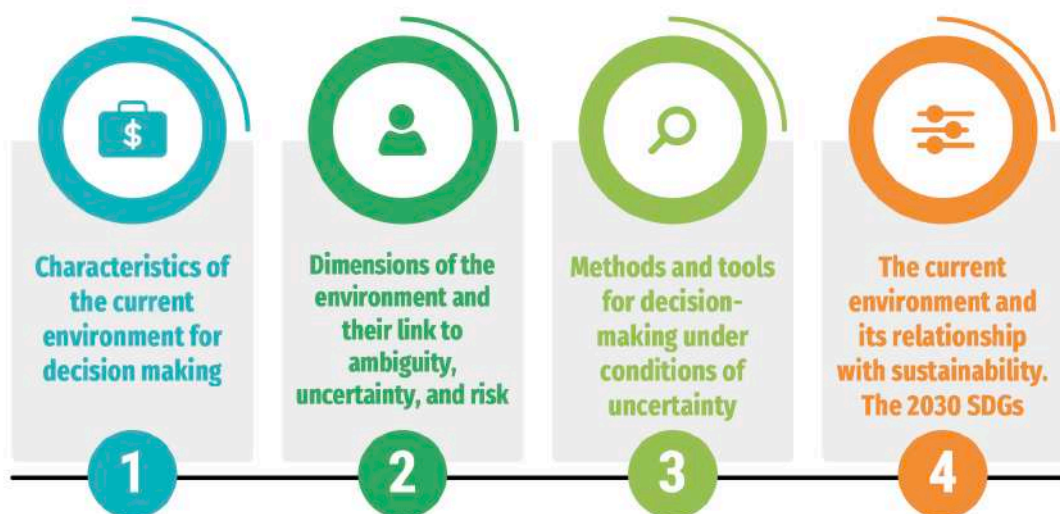

Competence area

Envisioning sustainable future

Learning outcomes:

Manage transitions and challenges in complex sustainability situations and make decisions related to the future in the face of uncertainty, ambiguity and risk.

To develop applied knowledge in the field of transition management from a sustainable perspective, this section is divided into 4 blocks. Those subsections will guide your through the learning process in order to acquire competences to face uncertainty, ambiguity and risk and improve your decision making.

Envisioning sustainable future

Characteristics of the current environment for decision making

1

Dimensions of the environment and their link to ambiguity, uncertainty, and risk

2

Methods and tools for decision-making under conditions of uncertainty

3

The current environment and its relationship with sustainability. The 2030 SDGs

4

Within each block you will be able to develop specific knowledge of different tools that exist to analyze the environment and reduce uncertainty in decision making. Specifically, you will learn about the following analysis methods:

The last block emphasizes the sustainable approach and integrates the SDGs into analysis and management. Thus, it provides information on the incorporation of these goals at the corporate level through four steps.

This block is an introduction to the characteristics of current environments known by the acronym VUCA: volatility, complexity, uncertainty, and ambiguity. These characteristics define contexts of complex nature for decision-making.

A **decision** is defined as a **voluntary act of selecting among several alternatives to achieve certain objectives.** The quality of the decisions made in an organization will dictate the success or failure of the business. All the available information and alternatives must be studied before arriving at an important decision. Another factor that affects these decisions is the environment in which they are taken. There are three decision-making environments:

- **Decision making under certainty.** Such type of environment is very sure and certain by its nature. This means that all the information is available and at hand. The manager has all the information he may need to make an informed and well thought out decision. All the alternatives and their outcomes can be analyzed. A way to ensure an environment of certainty is to create a closed system. If some data is missing at a first point it is very easy to obtain and not very expensive to gather. Certainty decision is less significant to the organization. And such type of decisions affects business success at a lower rate.

- **Decision making under uncertainty.** In the decision-making environment of uncertainty, the information available to the manager is incomplete, insufficient and often unreliable. In an uncertain environment, everything is in a state of flux. Several external and random forces mean that the environment is most unpredictable. In

uncertainty type of decisions, an individual has no idea about the event as some events may occur again in the organization. External factors positively influence such type of events.

- **Decision making under risk.** Under the condition of risk, there is the possibility of more than one event taking place. Which means the manager has to first ascertain the possibility and probability of the occurrence or non-occurrence of the event.
  The manager will generally rely on past experiences to make this deduction. Under the risk case, there may be a possibility of some possible events which may retake the place. But in this case, the decision-maker has some knowledge regarding the events which would be happened shortly.

In relation to the description of the different types of environments for decision making, think about the following questions:

1. How can a manager gather missing information of the environment? Is it primary data? Secondary data? Quantitative data? Qualitative data?
2. What kind of decisions can we identify on a daily basis in a company?
3. To what extent do you think decisions are rational/irrational? Based on data or based on past experiences?
4. Which steps do you normally apply to make a decision?

A rational decision can be made following a preset process. So, it is possible to identify different steps that helps to analyse the diversity of options and leads to optimal decisions. The following are the **7 main steps of the decision-making process:**

1. **Identify the decision.**
2. **Gather relevant info.**
3. **Identify the alternatives.**
4. **Weigh the evidence.**
5. **Choose among the alternatives.**
6. **Take action.**
7. **Review your decision.**

7 main steps of the decision-making process

Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7
Identify the decision	Gather relevant info	Identify the alternatives	Weigh the evidence	Choose among the alternatives	Take action	Review your decision
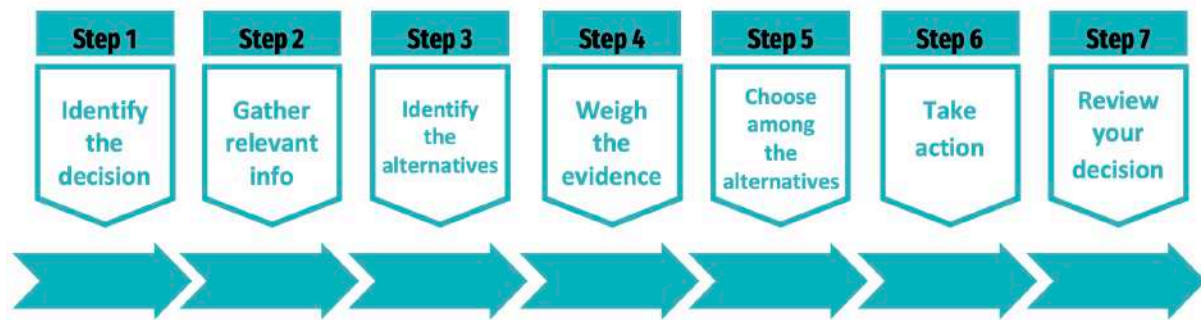
The business decision-making process is a step-by-step process allowing professionals to solve problems by weighing evidence, examining alternatives, and choosing a path from there. This defined process also provides an opportunity, at the end, to review whether the decision was the right one.

There are a variety of tools to assist in decision making, such as the decision tree or decision matrix. Below is a brief description of each tool, as well as links to websites that develop them and offer templates for their use.

A. Decision Tree

An useful way to portray very complex decisions and to show the routes that the the various possible outcomes might achieve are the decision trees. Pierre Massé, Commissioner General of the National Agency for Productivity and Equipment Planning in France notes that: "the decision problem is not posed in terms of an isolated decision (because today's decision depends on the one we shall make tomorrow) nor yet in terms of a sequence of decisions (because under uncertainty, decisions taken in the future will be influenced by what we have learned in the meanwhile). The problem is posed in terms of a tree of decisions".

The visual element of a decision tree helps you include more potential actions and outcomes than you might've if you just talked about it, mitigating risks of unforeseen consequences. Plus, the diagram allows you to include smaller details and create a step-by-step plan, so once you choose your path, it's already laid out for you to follow.

A decision tree contains four elements: the root node, decision nodes, leaf nodes, and branches that connect them together.
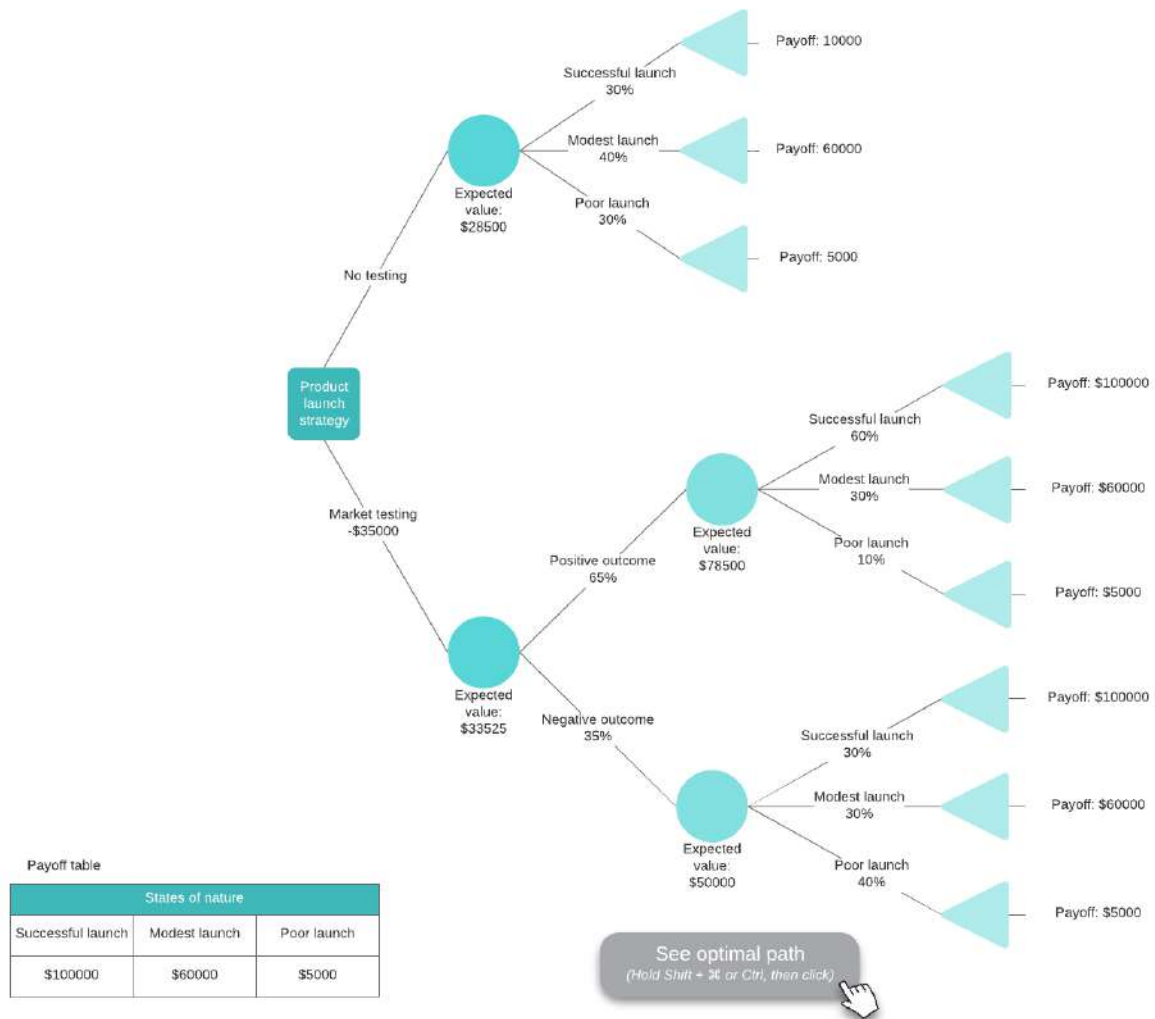
1. The **root node** is where the tree starts. It's the big issue or decision you are addressing.
2. As the name suggests, the **decision nodes** represent a decision in your tree. They are possible avenues to "solve" your main problem.
3. The **leaf nodes** represent possible outcomes of a decision. For instance, if you're deciding where to eat for lunch, a potential decision node is eat a hamburger at

McDonald's. A corresponding leaf node could be: Save money by spending less than $5.

4. **Branches** are the arrows that connect each element in a decision tree. Follow the branches to understand the risks and rewards of each decision.
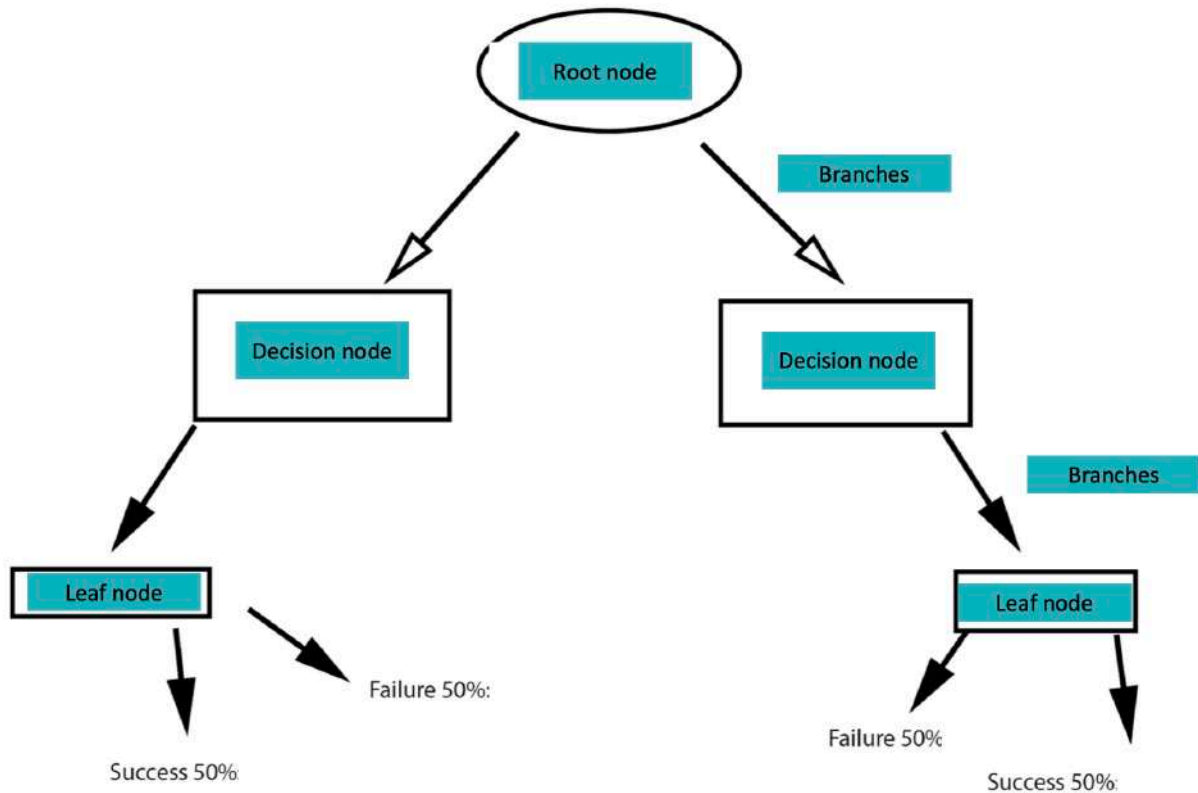
The example below shows a company trying to determine whether to perform market testing before a product launch. The different branches record the probability of success and estimated payout so the company can see which option will bring in more revenue.

Payoff: 10000

Successful launch
30%

Modest launch
40%

Payoff: 60000

Expected
value:
$28500

Poor launch
30%

Payoff: 5000

No testing

Product
launch
strategy

Payoff: $100000

Successful launch
60%

Modest launch
30%

Payoff: $60000

Expected
value:
$78500

Poor launch
10%

Payoff: $5000

Market testing
-$35000

Positive outcome
65%

Expected
value:
$33525

Negative outcome
35%

Payoff: $100000

Successful launch
30%

Modest launch
30%

Payoff: $60000

Expected
value:
$50000

Poor launch
40%

Payoff: $5000

Payoff table

States of nature		
Successful launch	Modest launch	Poor launch
$100000	$60000	$5000

See optimal path
(Hold Shift + ⌘ or Ctrl, then click)

The following example add financial data in an example on building a small/big plant. We can sum up the requirements of making a decision tree as follow:

1. Identify the points of decision and alternatives available at each point.
2. Identify the points of uncertainty and the type or range of alternative outcomes at each point.
3. Estimate the values needed to make the analysis, especially the probabilities of different events or results of action and the costs and gains of various events and actions.
4. Analyse the alternative values to choose a course.

Exhibit IV:
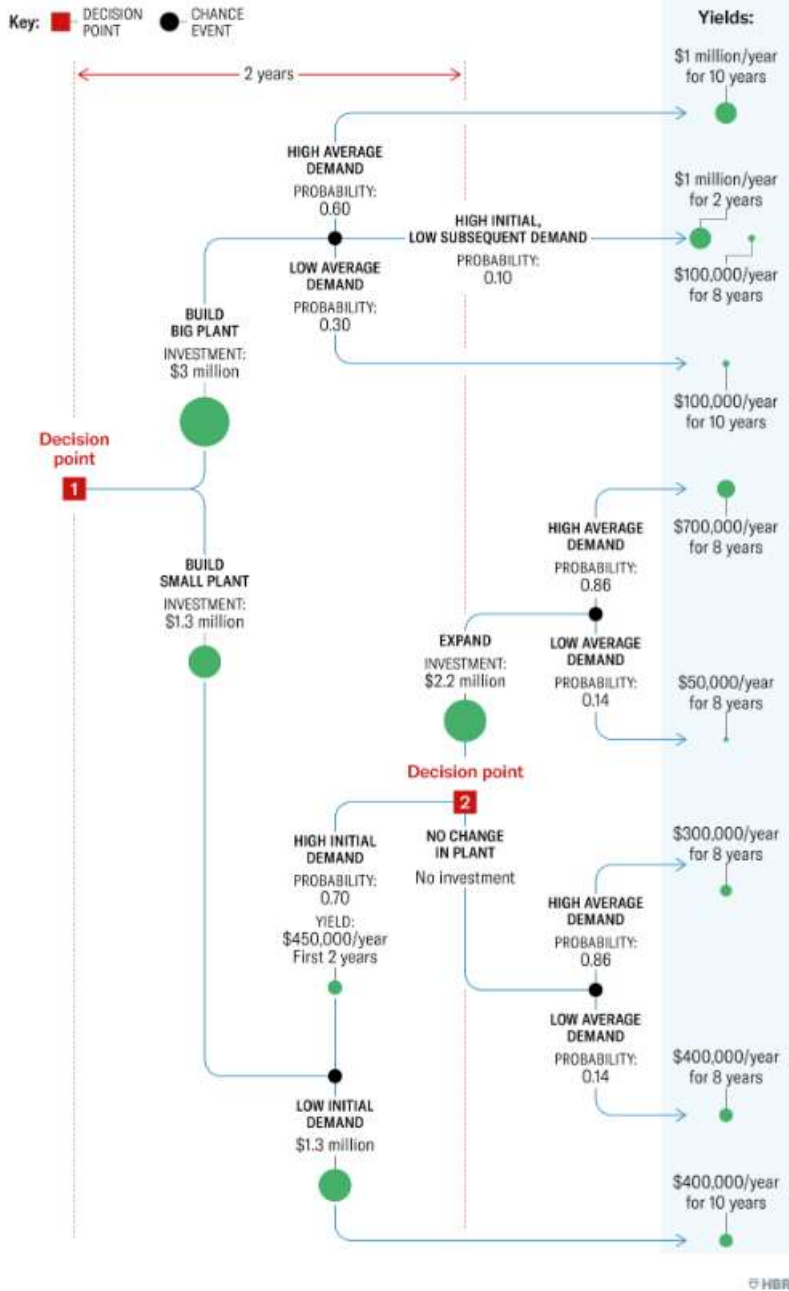**Decision Tree with Financial Data**

Key: ■ DECISION POINT ● CHANCE EVENT

Yields:

←——— 2 years ———→

$1 million/year for 10 years

HIGH AVERAGE DEMAND
PROBABILITY: 0.60

HIGH INITIAL, LOW SUBSEQUENT DEMAND
PROBABILITY: 0.10

$1 million/year for 2 years

LOW AVERAGE DEMAND
PROBABILITY: 0.30

$100,000/year for 8 years

BUILD BIG PLANT
INVESTMENT: $3 million

$100,000/year for 10 years

Decision point
■ 1

HIGH AVERAGE DEMAND
PROBABILITY: 0.86

$700,000/year for 8 years

BUILD SMALL PLANT
INVESTMENT: $1.3 million

EXPAND
INVESTMENT: $2.2 million

LOW AVERAGE DEMAND
PROBABILITY: 0.14

$50,000/year for 8 years

Decision point
■ 2

HIGH INITIAL DEMAND
PROBABILITY: 0.70
YIELD: $450,000/year First 2 years

NO CHANGE IN PLANT
No investment

$300,000/year for 8 years

HIGH AVERAGE DEMAND
PROBABILITY: 0.86

LOW AVERAGE DEMAND
PROBABILITY: 0.14

$400,000/year for 8 years

LOW INITIAL DEMAND
$1.3 million

$400,000/year for 10 years

ᴕHBR

Table published by HBR. https://hbr.org/1964/07/decision-trees-for-decision-making.

A decision tree does not give management the answer to an investment problem; rather, it helps management determine which alternative at any particular choice point will yield the greatest expected monetary gain, given the information and alternatives pertinent to the decision.

Sources, learn more!

Aditional information on the decision maling process based on decision trees: https://hbr.org/1964/07/decision-trees-for-decision-making

Link to Visual Paradigm, a software for developing decision trees: https://www.visual-paradigm.com/features/decision-tree-tool/

Link to Lucidchart, a tool for making charts and decision trees (free option) : https://www.lucidchart.com/pages/examples/decision-tree-maker

Example on how to develop a decision tree in the area of advertisement: https://blog.hubspot.com/marketing/decision-tree#what-is-dt

B. Decision Matrix

A decision matrix is a tool for evaluating and choosing the best option among different alternatives. It is a particularly useful tool when you have to decide between more than one option and there are several factors you need to consider to make the final decision.

You have probably heard about the decision matrix but with another name, although, in reality, it is talking about the same thing. Among those names are the following:

- Pugh matrix
- Grid analysis
- Multi-attribute utility theory
- Problem selection matrix
- Decision grid

When to use the decision matrix

It is not always necessary to use a decision matrix. The process is sound and relatively simple, but it is most effective when you have to decide between several comparable options. If the evaluation criteria are not the same for the different options, then the matrix is most likely not the best decision making tool. For example, a decision matrix will not help you decide the direction your team should take for the coming year because the options you must decide between are not comparable.

- Use the decision matrix for the following cases:
- Comparing several similar options
- Narrowing down the number of options to a final decision
- Weighing among a variety of important factors
- Approaching the decision from a logical point of view, rather than an intuitive or emotional one.

We can differentiate **7 steps** in the development of a decision matrix

Create a decision matrix in 7 steps

Identify the contenders

Define criteria

Build matrix

Determine weighting system

Add weight to variables

Multiply the weight scores

Calculate the total scores

Sources, learn more!

For more information about how you can develop each step, visit cascade website: https://www.cascade.app/blog/how-to-create-a-decision-matrix

These two tools, decision tree and decision matrix, are mainly applied when we have quite complete information about the decision making process. However, on many occasions we are faced with contexts of high uncertainty or risk. In these cases, the application of the VUCA tool defined in the following section is recommended for decision making

C. VUCA

VUCA is an acronym that stands for **V**olatility, **U**ncertainty, **C**omplexity and **a**mbiguity -- qualities that make a situation or condition difficult to analyze, respond to or plan for.

Ambiguity
Shaped by a lack of clarity and difficulty understanding exactly the situation. Information may be misread or misinterpreted. The goal or intended outcome may not be evident to all parties involved. In an ambiguous market, for example, not all information is public and unseen factors may be affecting prices.

Volatility
Quality of being subject to frequent, rapid and significant change. Small triggers may result in large changes. In a volatile market, for example, the prices of commodities can rise or fall considerably in a short period of time, and the direction of a trend may reverse suddenly.

Complexity
The relationships between items and people are difficult to understand. A change in one place may cause unintended changes to other things down the line. In a complex market, for example, the changes in gas prices affect the prices of many other items that are not directly related.

Uncertainty
It occurs when events and outcomes are unpredictable. The cause and effect are not well understood, and previous experience may not apply to the situation. It is unclear which direction events will go; in an uncertain market, for example, it is not clear if the price will go up or down or by how much.

The VUCA tool or analysis is a methodology that helps to quantify risks and create mitigation strategies. It can be used to go through what is known and not known about a situation or plan. This helps to create a better understanding of the situation and what the vulnerabilities and risks are.

You can view VUCA as a challenge to improve your leadership and management skills, and you can turn it into an opportunity to make your team more effective by focusing on the following areas:

- **Implementation:** work with your people to address VUCA threats at a team level.

- **Decision making:** see complexity and uncertainty as drivers for delving deeper before making decisions, rather than as overwhelming forces.

- **Innovation and creativity:** consider process and workflow innovation as a way to tackle VUCA, rather than as something that might suffer because of it.

- **Searching for opportunities:** look for better deals and opportunities, instead of relying on your usual vendors and suppliers. In a VUCA world, these opportunities can be fleeting, so you have to stay alert and seize them when they arise.

- **Team building and organizational culture:** adversity and challenge can unsettle people, but they can also focus their attention and encourage them to work towards a common goal.

- **Recruitment:** improve agility by promoting and recruiting people who are comfortable in less-structured and ever-changing environments.

When it comes to strategy, understanding VUCA can greatly improve the strategic abilities of a leader and lead to better outcomes. VUCA delineates the dynamic nature of market forces in which organizations, in any sector or industry operate today. The following image shows the characteristics and approach of each quadrant. It also provides an example related to the market.

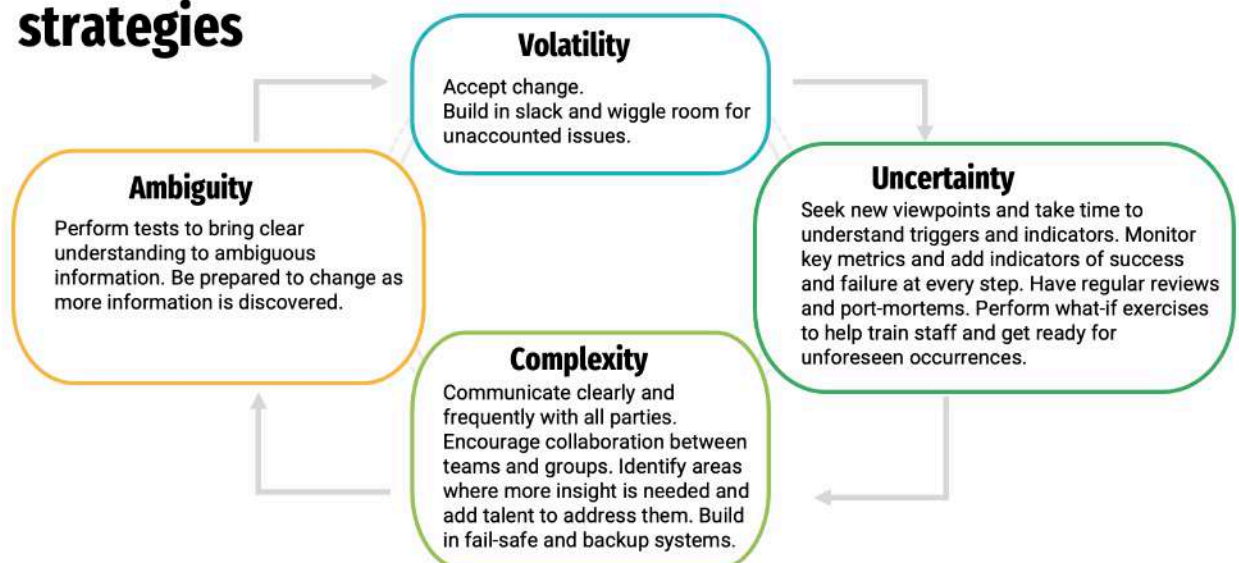## A Guide to Approaching Events in the Four VUCA Categories

HOW WELL CAN YOU PREDICT THE RESULTS OF YOUR ACTIONS? (vertical axis, from − to +)

Complexity

Characteristics: The situation has many interconnected parts and variables. Some information is available or can be predicted, but the volume or nature of it can be overwhelming to process.

Example: You are doing business in many countries, all with unique regulatory environments, tariffs, and cultural values.

Approach: Restructure, bring on or develop specialists, and build up resources adequate to address the complexity.

Volatility

Characteristics: The challenge is unexpected or unstable and may be of unknown duration, but it's not necessarily hard to understand; knowledge about it is often available.

Example: Prices fluctuate after a natural disaster takes a supplier off-line.

Approach: Build in slack and devote resources to preparedness—for instance, stockpile inventory or overbuy talent. These steps are typically expensive; your investment should match the risk.

Ambiguity

Characteristics: Causal relationships are completely unclear. No precedents exist; you face "unknown unknowns."

Example: You decide to move into immature or emerging markets or to launch products outside your core competencies.

Approach: Experiment. Understanding cause and effect requires generating hypotheses and testing them. Design your experiments so that lessons learned can be broadly applied.

Uncertainty

Characteristics: Despite a lack of other information, the event's basic cause and effect are known. Change is possible but not a given.

Example: A competitor's pending product launch muddies the future of the business and the market.

Approach: Invest in information—collect, interpret, and share it. This works best in conjunction with structural changes, such as adding information analysis networks, that can reduce ongoing uncertainty.

HOW MUCH DO YOU KNOW ABOUT THE SITUATION? (horizontal axis, from − to +)

How to develop a VUCA?

The next questions can help us in the analysis of the context and the creation of a VUCA matrix.

VUCA questions

Volatility
What are the highest and lowest possible values that we can expect?
How fast can these values change?
What amount of change can we absorb before it negatively impacts us?

Uncertainty
What can change? What are potential signs of change? Will we know when things change? How fast can we respond to a change?

Ambiguity
What is our visibility into the internal and external factors? What is the possibility for misunderstanding and confusion? How can directions be issued more clearly? What signifies that more information is needed before making a decision?

Complexity
How well do we understand the structures involved?
How are these items interconnected? What is our ability to stop a chain reaction or cascading failure?

The development of a VUCA matrix leads to the definition of strategies that mitigate uncertainty and risk. It is possible to identify common strategies related to each quadrant. They are shown in the next figure.

VUCA mitigation strategies

Volatility
Accept change.
Build in slack and wiggle room for unaccounted issues.

Uncertainty
Seek new viewpoints and take time to understand triggers and indicators. Monitor key metrics and add indicators of success and failure at every step. Have regular reviews and port-mortems. Perform what-if exercises to help train staff and get ready for unforeseen occurrences.

Ambiguity
Perform tests to bring clear understanding to ambiguous information. Be prepared to change as more information is discovered.

Complexity
Communicate clearly and frequently with all parties. Encourage collaboration between teams and groups. Identify areas where more insight is needed and add talent to address them. Build in fail-safe and backup systems.

Sources, learn more!

https://www.toppr.com/guides/fundamentals-of-economics-and-management/decision-making/environment-of-decision-making/
https://www.techtarget.com/whatis/definition/VUCA-volatility-uncertainty-complexity-and-ambiguity
https://www.techtarget.com/whatis/definition/VUCA-volatility-uncertainty-complexity-and-ambiguity
https://www.mindtools.com/asnydwg/managing-in-a-vuca-world

Complementary material

To learn more about the VUCA tool, watch this video!

VUCA Leadership: How to lead in a VUCA world

Developed by Primeast US

https://www.youtube.com/watch?v=oEyx0HrpMbA

We also recommend that you read the two following articles:

1. Bennett, N., & Lemoine, J. (2014). What VUCA really means for you. Harvard business review, 92(1/2).
Available at:
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2389563

Research Watch

COMPLIANCE AND THE FRIGHT FACTOR

People who spotted what they at first thought was a parking ticket on their windshield were more likely to buy an item from a street vendor immediately afterward. (The tickets were fake.) And people who were asked "Haven't you lost your wallet?"—but hadn't, in fact—were more likely to agree to take part in a survey. These experiments, by **Dariusz Dolinski** and **Katarzyna Szczucka,** of Warsaw School of Social Sciences and Humanities, show that the "emotional disorganization" following apprehension and relief makes people more inclined to comply with a request.

MANAGEMENT *by Nathan Bennett and G. James Lemoine*

What VUCA Really Means for You

It's become a trendy managerial acronym: VUCA, short for *volatility, uncertainty, complexity,* and *ambiguity,* and a catchall for "Hey, it's crazy out there!" It's also misleading: VUCA conflates four distinct types of challenges that demand four distinct types of responses. That makes it difficult to know how to approach a challenging situation and easy to use VUCA as a crutch, a way to throw off the hard work of strategy and planning—after all, you can't prepare for a VUCA world, right?

Actually, you can. Here is a guide to identifying, getting ready for, and responding to events in each of the four VUCA categories. ▽

HBR Reprint F1401C

Nathan Bennett is a professor at Georgia State University's Robinson College of Business. **G. James Lemoine** is a doctoral candidate at Georgia Institute of Technology's Scheller College of Business.

HOW WELL CAN YOU PREDICT THE RESULTS OF YOUR ACTIONS?

complexity

Characteristics: The situation has many interconnected parts and variables. Some information is available or can be predicted, but the volume or nature of it can be overwhelming to process.

Example: You are doing business in many countries, all with unique regulatory environments, tariffs, and cultural values.

Approach: Restructure, bring on or develop specialists, and build up resources adequate to address the complexity.

volatility

Characteristics: The challenge is unexpected or unstable and may be of unknown duration, but it's not necessarily hard to understand; knowledge about it is often available.

Example: Prices fluctuate after a natural disaster takes a supplier off-line.

Approach: Build in slack and devote resources to preparedness—for instance, stockpile inventory or overbuy talent. These steps are typically expensive; your investment should match the risk.

ambiguity

Characteristics: Causal relationships are completely unclear. No precedents exist; you face "unknown unknowns."

Example: You decide to move into immature or emerging markets or to launch products outside your core competencies.

Approach: Experiment. Understanding cause and effect requires generating hypotheses and testing them. Design your experiments so that lessons learned can be broadly applied.

uncertainty

Characteristics: Despite a lack of other information, the event's basic cause and effect are known. Change is possible but not a given.

Example: A competitor's pending product launch muddies the future of the business and the market.

Approach: Invest in information—collect, interpret, and share it. This works best in conjunction with structural changes, such as adding information analysis networks, that can reduce ongoing uncertainty.

HOW MUCH DO YOU KNOW ABOUT THE SITUATION?

2. Bennett, N., & Lemoine, G. J. (2014). What a difference a word makes: Understanding threats to performance in a VUCA world. Business horizons, 57(3), 311-317.
Available at:

https://www.researchgate.net/publication/263926940_What_VUCA_really_means_for_you

ORGANIZATIONAL PERFORMANCE

What a difference a word makes: Understanding threats to performance in a VUCA world

Nathan Bennett [a,*], G. James Lemoine [b]

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GA 30308, U.S.A.

KEYWORDS
VUCA;
Volatility;
Uncertainty;
Complexity;
Ambiguity;
Leadership

Abstract VUCA is an acronym that has recently found its way into the business lexicon. The components it refers to—volatility, uncertainty, complexity, and ambiguity—are words that have been variously used to describe an environment which defies confident diagnosis and befuddles executives. In a 'VUCA world,' both pundits and executives have said, core activities essential to driving organizational performance—like strategic planning—are viewed as mere exercises in futility. VUCA conditions render useless any efforts to understand the future and to plan responses. When leaders are left with little to do other than wring their hands, organizational performance quickly falls at risk. In this installment of Organizational Performance, we demonstrate that by overlooking important differences in the conditions that volatility, uncertainty, complexity, and ambiguity describe, we have disempowered leaders. We show how leaders can appreciate the differences among each of these challenging situations in order to properly allocate scarce resources to preserve and enhance organizational performance.
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1. Living in a VUCA world

"Across many industries, a rising tide of volatility, uncertainty, and business complexity is roiling markets and changing the nature of competition." (Doheny, Nagali, & Weig, 2012)

Observations such as this, from a recent issue of the *McKinsey Quarterly*, have been used to energize leaders as they rise to confront yet another day in unpredictable times—as well as to sell these same leaders consulting services. Employing an acronym for volatility, uncertainty, complexity, and ambiguity[1] (VUCA), pundits and leaders alike have asserted that we now live in a 'VUCA world.' This ongoing churn in the business environment creates myriad traps for leaders. Of course, optimists see the edge a company can gain if its leaders master the accompanying challenges. For example:

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jim.lemoine@scheller.gatech.edu (G.J. Lemoine)

[1] The acronym VUCA originated in the U.S. military (Whiteman, 1998).

Let's do it in practice!

Activity

Select a business/industrial/educational sector that will be the context of the activities to develop in this module. With the selected context as a reference, define the factors that explain the current context characterized by volatility, complexity, uncertainty, and ambiguity.

Learning outcomes/objectives of the activity:

- **Develop knowledge about the environment**
- **Learn to identify the characteristics of the environment**
- **Acquire specific knowledge of a specific industry or sector**
- **Develop analytical skills based on environmental factors.**
- **Identify the factors that condition volatility, complexity, uncertainty and ambiguity.**

This activity is the evaluation of module 1, you need to complete it to finish the course.

Description: Download the figure and complete the boxes with information regarding:

- The business, industrial or educational sector you have chosen and the following factors that influence your sector:
- **Complexity factors:**
- **Volatility factors:**
- **Ambiguity factors:**
- **Uncertainty factors:**

Upload/Send your activity once completed.

Access to the activity template →

Activity 1: VUCA

Complexity factors:	Volatility factors:
Ambiguity factors:	**Uncertainty factors:**

This block offers different instruments to understand in an apply manner the dimensions that explain the general and specific environments that affect any entrepreneurial initiative and represent sources of change in the business context.

Understanding the environment that surrounds an organization is important to the executives in charge of the organizations. There are several reasons for this.

➜First, the environment provides resources that an organization needs in order to create goods and services. An organization cannot survive without the support of its environment.

➜Second, the environment is a source of opportunities and threats for an organization.

➜Third, the environment shapes the various strategic decisions that executives make as they attempt to lead their organizations to success. Therefore, the environment is the source of resources that the organizations needs. It provides opportunities and threats, and it influences the various strategic decisions that executives must make.
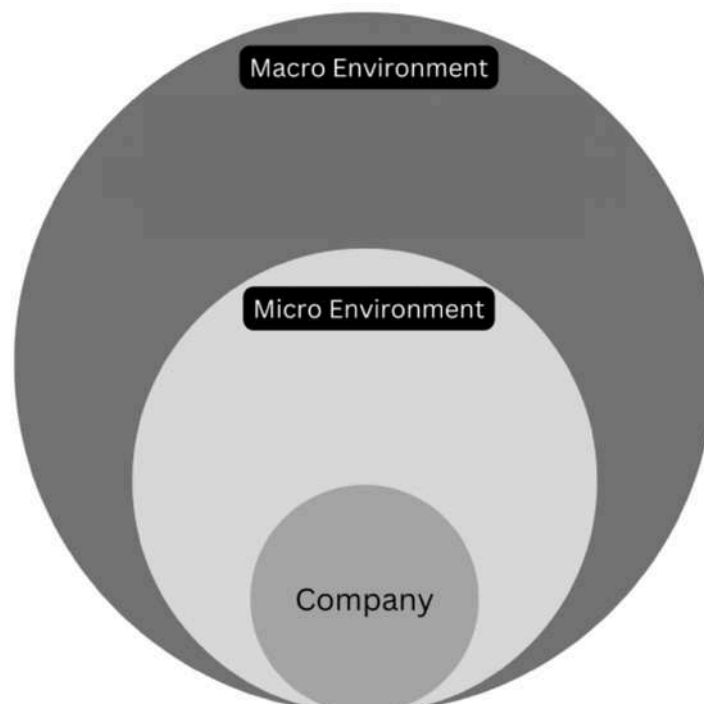
By studying a business environment, you can help an organization improve its performance. You can develop strategies to adapt to changes in the environment. For example, if a positive development happens, you can identify ways to maximize the opportunities the change creates. Alternatively, if a challenge occurs, you can identify it early and determine a strategy to minimize its impact on an organization. The ability to react quickly to the changing conditions of a business environment can help a company grow and improve, supporting its overall performance. It is possible to differentiate a Micro and a Macro environment:

MICRO

Small or pertaining to one item in the environment. It refers to those internal and external factors, which exercise a direct influence on the working and performance of an individual business organization. A micro environment is also called a Direct Section Environment or Task Environment. Micro environment may be classified into two broad categories: internal and external factors.

MACRO

General environment or remote environment under which a business enterprise and forces in its micro environment operate. The macro environment is not interacted with regularly or directly by any enterprise. The forces of micro environment create opportunities for the organization and pose threats to the company. The micro environment forces are less controllable than the micro forces. The macro environment consists of the following components- economic, social, technological, political, and legal environments.

More specifically, the following figures show the factors of each dimension:

BUSINESS MICRO ENVIRONMENT

BUSINESS MACRO ENVIRONMENT

The next figure summarizes the information presented above in a comprehensive way:

Knowing the different dimensions of the environment has numerous **benefits for the company.** Three of the most relevant ones are discussed below:

Improvement of the organization

A large component of a business environment includes planning for the future. When an external force shifts, you can create a strategic plan to address this changing condition. By maintaining a business environment, you can help a business increase its organization. For instance, your team might develop action plans for future changes within the business environment, such as expanding the company or developing a new product. This type of planning can help you lead your team to be better prepared to handle new plans, orders or tasks.

Identification of business opportunities

When you analyze the business environment, you may identify opportunities for business growth. A business environment is dynamic, meaning it's constantly changing. Business managers and analysts who regularly study the company's business environment can implement action plans to create new opportunities. For instance, you might recognize a gap in the market and use that knowledge to create a new product that resolves the issue. Often, these changes may result in increased profits or improved operations for an organization.

Identification of threats

There can be many threats when managing a business. If you understand the business environment, you can predict and analyse those risks. Examples of threats may include new competitors or the loss of profits. When you study the business environment, you can identify those threats before they escalate. For instance, you might work with the marketing team to observe their competitor's trends and actions. This research can help the team identify ways to solve problems or compete effectively with other organizations.

Sources, learn more!

https://www.geeksforgeeks.org/dimensions-of-business-environment/

We will now take a closer look at two tools for analyzing both the micro and macro business environment: Porter's five forces and PESTEL analysis.

A. Porter´s Five Forces

Porter's Five Forces is a simple but powerful tool that you can use to identify the main sources of competition in your industry or sector. It identifies and analyzes five competitive forces that shape every industry and helps determine an industry's weaknesses and strengths.

Porter's model can be applied to any segment of the economy to understand the level of competition within the industry and enhance a company's long-term profitability. When you understand the forces affecting your industry, you can adjust your strategy, boost your profitability, and stay ahead of the competition. You can take fair advantage of a strong position or improve a weak one, and avoid taking wrong steps in the future.

The Five Forces model is named after Harvard Business School professor **Michael E. Porter**, who created the tool in 1979. The model was published in Michael E. Porter's book, *Competitive Strategy: Techniques for Analyzing Industries and Competitors*.

The reason Porter's model became so widely adopted is that it forces companies to look beyond their own immediate business and to their industry as a whole when making long-term plans. According to Porter, there are five forces that represent the key sources of competitive pressure within an industry:

1. Competition in the Industry

The first of Porter's Five Forces looks at the number and strength of your competitors. Consider how many rivals you have, who they are, and how the quality of their product compares with yours. In an industry where rivalry is intense, companies attract customers by cutting prices aggressively and launching high-impact marketing campaigns. This can make it easy for suppliers and buyers to go elsewhere if they feel that they're not getting a good deal from you. On the other hand, where competitive rivalry is minimal, and no one else is doing what you do, then you'll likely have tremendous competitor power, as well as healthy profits.

2. Potential of New Entrants into an Industry

The companies' position can be affected by potential rivals' ability to enter your market. If it takes little money and effort to enter your market and compete effectively, or if you have little protection for your key technologies, then rivals can quickly enter your market and weaken your position. However, if you have strong and durable barriers to entry, then you can preserve a favorable position and take fair advantage of it. These barriers can include complex distribution networks, high starting capital costs, and difficulties in finding suppliers who are not already committed to competitors.

Existing large organizations may be able to use economies of scale to drive their costs down, and maintain competitive advantage over newcomers. If it costs customers too much to

switch between one supplier and another, this can also be a significant barrier to entry. So can extensive government regulation of an industry.

3. Power of Suppliers

The next factor in the Porter model addresses how easily suppliers can drive up the cost of inputs. It is affected by the number of suppliers of key inputs of a good or service, how unique these inputs are, and how much it would cost a company to switch to another supplier. The fewer suppliers to an industry, the more a company would depend on a supplier. Suppliers gain power if they can increase their prices easily, or reduce the quality of their product. If your suppliers are the only ones who can supply a particular service, then they have considerable supplier power. Even if you can switch suppliers, you need to consider how expensive it would be to do so.

The more suppliers you have to choose from, the easier it will be to switch to a cheaper alternative. But if there are fewer suppliers, and you rely heavily on them, the stronger their position – and their ability to charge you more. This can impact your profitability, for example, if you're forced into expensive contracts.

4. Buyer Power

The ability that customers have to drive prices lower or their level of power is one of the Five Forces. It is affected by how many buyers or customers a company has, how significant each customer is, and how much it would cost a company to find new customers or markets for its output.

If the number of buyers is low compared to the number of suppliers in an industry, then they have what's known as "buyer power." This means they may find it easy to switch to new, cheaper competitors, which can ultimately drive down prices. So, a smaller and more powerful client base means that each customer has more power to negotiate for lower prices and better deals. A company that has many, smaller, independent customers will have an easier time charging higher prices to increase profitability.

5. Threat of Substitutes

Substitute goods or services that can be used in place of a company's products or services pose a threat. This block refers to the likelihood of your customers finding a different way of doing what you do. It could be cheaper, or better, or both. The threat of substitution rises when customers find it easy to switch to another product, or when a new and desirable product enters the market unexpectedly.
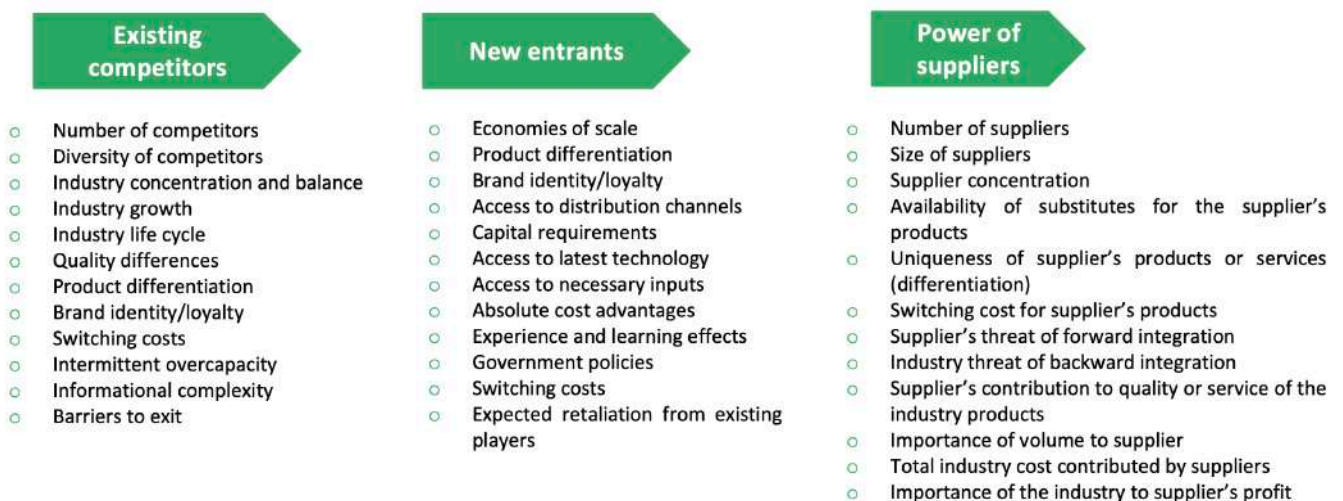
Companies that produce goods or services for which there are no close substitutes will have more power to increase prices and lock in favorable terms. When close substitutes are

available, customers will have the option to forgo buying a company's product, and a company's power can be weakened

To use the model, start by looking at each of the five forces in turn, and think about how they apply in your industry! The Five Forces model can help businesses boost profits, but they must continuously monitor any changes in the Five Forces and adjust their business strategy.

The following figure shows factors that can be taken into account in each of the forces to facilitate their analysis:

Existing competitors	New entrants	Power of suppliers
○ Number of competitors	○ Economies of scale	○ Number of suppliers
○ Diversity of competitors	○ Product differentiation	○ Size of suppliers
○ Industry concentration and balance	○ Brand identity/loyalty	○ Supplier concentration
○ Industry growth	○ Access to distribution channels	○ Availability of substitutes for the supplier's products
○ Industry life cycle	○ Capital requirements	
○ Quality differences	○ Access to latest technology	○ Uniqueness of supplier's products or services (differentiation)
○ Product differentiation	○ Access to necessary inputs	
○ Brand identity/loyalty	○ Absolute cost advantages	○ Switching cost for supplier's products
○ Switching costs	○ Experience and learning effects	○ Supplier's threat of forward integration
○ Intermittent overcapacity	○ Government policies	○ Industry threat of backward integration
○ Informational complexity	○ Switching costs	○ Supplier's contribution to quality or service of the industry products
○ Barriers to exit	○ Expected retaliation from existing players	
		○ Importance of volume to supplier
		○ Total industry cost contributed by suppliers
		○ Importance of the industry to supplier's profit

Power of buyers

o Buyer volume (number of customers)
o Size of each buyer's order
o Buyer concentration
o Buyer's ability to substitute
o Buyer's switching costs
o Buyer's information availability
o Buyer's threat of backward integration
o Industry threat of forward integration
o Price sensitivity

Substitute products or services

o Number of substitute products available
o Buyer's propensity to substitute
o Relative price performance of substitutes
o Perceived level of product differentiation
o Switching costs
o Substitute producer's profitability & aggressiveness

Now let's apply the tool in practice!

In this link you can find a **Porter´s Five Forces** analysis of the **Uber case**.

Each force is explained in detail. The result of the analysis is shown in the following figure:

https://www.digitalbizmodels.com/blog/strategy-porters-five-forces

Uber

{ Porter Five Forces }

→ Car sharing: **LOW/MEDIUM**
→ Self-driving cars: **MEDIUM** (but Uber one of the leaders)
→ Better public transport: **LOW**
→ Bike sharing: **LOW/MEDIUM**
→ Other (e.g. working from home): **LOW**
⇒ **Threat of Substitutes: LOW** (too different value proposition)

Threat of Substitutes

→ Bargaining power of drivers: **LOW ***

→ Switching costs of the drivers: **LOW ****

→ Value proposition for drivers: **MEDIUM**

→ Barriers of entry for drivers: **LOW**

* may increase with legislative changes

** Low but no alternatives not more compelling

⇒ **Bargaining power of drivers: LOW but potentially RISING**

Bargaining Power of Drivers

Rivalry among Competitors

→ Existing rivals (OLA, Lyft, Didi): **HIGH** (but consolidating)

→ For Uber EATS: **HIGH**

→ Direct rivals in non-US: **MEDIUM** (Lyft: 30%, Doordash)

→ Direct competition from niches: **LOW** (The "Uber of X" looks to be Uber)

→ Locally focussed: **MEDIUM/RISING**

⇒ **Rivalry among competitors: HIGH**

Bargaining Power of Riders

→ Bargaining power of riders: **HIGH**

→ Switching barriers for riders: **LOW**

→ Value proposition for riders: **MEDIUM**

→ Rider information availability: **Medium/HIGH**

⇒ **Bargaining power of riders: HIGH**

Threat of New Entrants

→ Barriers to entry: **HIGH/MEDIUM ***
→ Barriers to exit: **LOW**
→ Economies of scale: **LOW/MEDIUM**
→ Industry profitability: **LOW** (but improving)
→ Incumbent powers: **LOW**

* high for another US-based entrant but medium for some other countries (some of the key markets already have a locally operating dominant company. Some of these could expand internationally)

⇒ **Threat of new entrants: MEDIUM**

Do you want to know how the tool is applied to analyze the Netflix model? You can find the complete analysis in the following link: https://www.edrawmax.com/article/netflix-porters-five-forces-analysis.html

Sources, learn more!

Additional information: https://www.investopedia.com/terms/p/porter.asp#citation-1

Original publication: Porter, M.E. (1979). How Competitive Forces Shape Strategy. Harvard Business Review

Updated publication: Porter, M.E. (2008). The Five Competitive Forces That Shape Strategy. Harvard Business Review

Highlights of Porter's publication: Porter, Michael E. (1980) Extracts from Competitive Strategy: techniques for analyzing industries and competitors: with a new introduction (pp. ix-xxviii; 1-48). New York, NY: The Free Press USA. https://s3.us-east-1.amazonaws.com/storage.thanksforthehelp.com/qfile/porter-michael-e-1980-extract-competitive-strategy-vyr2a2bw.pdf

Youtube video "Porter's 5 Forces EXPLAINED | B2U |" Developed by **Business To You** https://www.youtube.com/watch?v=Dfp23xSqpdk&t=4s

B. PESTEL analysis

Once the dimensions and main factors of the entrepreneurial micro-environment have been presented, this section develops the most fundamental aspects of the macro-environment, through one of the most widely known and applied tools for its measurement: the PESTEL analysis.

A PESTEL analysis (or PEST analysis) is an acronym for a tool used to identify the **macro (external) forces** facing an organisation. The letters stand for:

- **P**olitical
- **E**conomic
- **S**ocial
- **T**echnological
- **E**nvironmental
- **L**egal

A PESTEL analysis helps an organisation identify the **external forces** that could impact their market and analyse how they could directly impact their business. It's important when undertaking such an analysis that the factors affecting the organisation are not just identified but are also assessed – for example, what impact might they have on the organisation?

The framework is also used to identify **potential threats and weaknesses** which are used in a **SWOT Analysis** when identifying any strengths, weaknesses, opportunities and threats to a business. Organisations that successfully monitor and respond to changes in the macro-environment can differentiate from the competition and thus have a competitive advantage over others.

We now define each of the dimensions!

Political Factors ➤ These determine the extent to which government and government policy may impact on an organisation or a specific industry. This can include government policy, political stability or instability, corruption, foreign trade policy, tax policy, labour law, environmental law and trade restrictions.

Economic Factors ➤ Economic factors are determinants of a certain economy's performance. Factors include economic growth, exchange rates, inflation rates, interest rates, disposable income of consumers and unemployment rates. These factors may have a direct or indirect long-term impact on a company, since it affects the purchasing power of consumers and could possibly change demand/supply models in the economy. Consequently, it also affects the way companies price their products and services.

Social Factors

This dimension of the general environment represents the demographic characteristics, norms, customs and values of the population within which the organization operates. This includes population trends such as the population growth rate, age distribution, income distribution, career attitudes, safety emphasis, health consciousness, lifestyle attitudes and cultural barriers. These factors are especially important for marketeers when targeting certain customers. In addition, it also says something about the local workforce and its willingness to work under certain conditions.

Technological Factors

Technological factors consider the rate of technological innovation and development that could affect a market or industry. Factors could include changes in digital or mobile technology, automation, research and development. There is often a tendency to focus on developments only in digital technology, but consideration must also be given to new methods of distribution, manufacturing and logistics. They influence the decisions to enter or not enter certain industries, to launch or not launch certain products or to outsource production activities abroad.

Environmental Factors

Environmental factors are those that are influenced of the surrounding environment and the impact of ecological aspects. With the rise in importance of CSR (Corporate Sustainability Responsibility) and sustainability, this element is becoming more central to how organisations need to conduct their business. Factors include climate, recycling procedures, carbon footprint, waste disposal and sustainability

Legal Factors

An organisation must understand what is legal and allowed within the territories they operate in. They also must be aware of any change in legislation and the impact this may have on business operations. Factors include employment legislation, consumer law, healthy and safety, international as well as trade regulation and restrictions. Political factors do cross over with legal factors; however, the key difference is that political factors are led by government policy, whereas legal factors must be complied with.

The next figure shows a summary of the factors of each of the dimensions of the PESTEL model:

POLITICAL FACTORS

- Government stability/instability
- Corruption level
- Tax policies
- Freedom of press
- Government regulation and deregulation
- Special tariffs
- Political action committees
- Government involvement in trade unions and agreements
- Competition regulation
- Voter participation rates
- Amount of government protests
- Defense expenditures
- Level of government subsidies
- Bilateral relationships
- Import-export regulation/restrictions
- Trade control
- Lobbying activities
- Size of government budgets

ECONOMIC FACTORS

- Growth rate
- Interest rate
- Inflation rate
- Exchange rate
- Availability of credit
- Level of disposable income
- Propensity of people to spend
- Federal government budget deficits
- Gross domestic product trend
- Unemployment trend
- Stock market trends
- Price fluctuations

SOCIAL FACTORS

- Population size and growth rate
- Birth rates
- Death rates
- Number of marriages
- Number of divorces
- Immigration and emigration rates
- Life expectancy rates
- Age distribution
- Wealth distribution
- Social classes
- Per capita income
- Family size and structure
- Lifestyles
- Health consciousness
- Attitude towards government
- Attitude towards work
- Buying habits
- Ethical concerns
- Cultural norms and values
- Sex roles and distribution
- Religion and beliefs
- Racial equality
- Use of birth control
- Education level

TECHNOLOGICAL FACTORS

- Technology incentives
- Automation
- R&D activity
- Technological change
- Access to new technology
- Level of innovation
- Technological awareness
- Internet infrastructure
- Communication infrastructure
- Life cycle of technology

ENVIRONMENTAL FACTORS

- Weather
- Climate
- Environmental policies
- Climate change
- Pressures from NGO's
- Natural disasters
- Air and water pollution
- Recycling standards
- Attitudes towards green products
- Support for renewable energy

LEGAL FACTORS

- Discrimination laws
- Antitrust laws
- Employment laws
- Consumer protection laws
- Copyright and patent laws
- Health and safety laws
- Education laws
- Consumer protection laws
- Data protection laws

Once we understand the relevance and usefulness of the PESTEL tool, let's go deeper into its application. Following are the best scenarios for using the PESTEL Analysis tool:

Good scenarios for applying PESTEL

When launching your very own business

When you are facing troubles with your business

When your analyst is working out the angles for your business

How to do a PESTEL Analysis?

Brainstorm

Brainstorm ideas for each area of the PESTLE template.

Group

Review responses, and collate ideas.

Rate

Rate the ideas according to likely impact on the organization.

Share

Share the outcomes of the session to relevant stakeholders.

1. There are several steps involved when undertaking a PESTEL analysis. At first, it is important to get a group of people together from different areas of the business and **brainstorm ideas**.

2. Next, you will want to consult and seek the **opinions of experts from outside your business**. These could be your customers, distributors, suppliers or consultants who know your business well.

3. The third stage will involve you researching and **gathering evidence** for each insight in your Analysis. Then you will want to **evaluate and score** each of the items for 'likelihood'; how likely it is to happen and 'impact'; how big an impact it could have on your business.

4. The final stage involves **sharing** and **refining your ideas** and repeating the proves until you have a manageable number of points in each of the six categories.

Having defined the theory that helps to understand the tool, we look at its practical application. Continuing with the example used above, this is the **PESTEL analysis of UBER**:

PESTLE ANALYSIS OF UBER

Leading Shared Taxi Service Provider

Political Factor
- Need to make its stand clear about drivers' insurance.
- Have to follow minimum wage rules.
- Have to have deal with bans in many countries.

Economic Factor
- Easily accessible.
- Affordable fare charges
- Offers jobs opportunities, but pay may not be convincing.

Social Factor
- User friendly
- Quick pick up
- Gives better ride experience than taxis

Tech. Factor
- Excellent mobile app for users
- Using social media and other electronic media well for promotion

Legal Factor
- Need to prevent ban in many countries
- Need to follow labor and employee safety laws well
- Copyright laws need to be looked at as well

Environ. Factor
- Fuel usage may increase
- Traffic congestion is a concern as well

If you want another example, here is a brief PESTEL analysis of another well-known company, **Coca-Cola:**

Coca-Cola
PESTLE ANALYSIS OF COCA COLA

Popular soft drink producer

Political Factor
- Must follow FDA rules to provide people with right beverages
- Labor, accounting and internal marketing laws must be followed

Economic Factor
- Understands cunsumers' tastes and preferences
- Most of income is from sell of soft drinks
- Must focus on launching healthy drinks

Social Factor
- Have launched healthy drinks in US
- Need to do the same in the countries such as Japan and China

Tech. Factor
- They use high technology in producing fine products in short time
- Using social media effectively for promotions

Legal Factor
- Coca Cola has done well in securing all the rights of their business

Environ. Factor
- Must operate in an area where is no shortage of water

www.allassignmenthelp.com/blog

There are different templates and websites that help you develop a PESTEL analysis. A very simple tool that you may be familiar with is Power Point. The following link explains how to use Power Point and Edraw Max to develop a PESTEL analysis:

https://www.edrawmax.com/pestle/how-to-do-a-pestel-analysis-on-powerpoint/

Sources, learn more!

https://blog.oxfordcollegeofmarketing.com/2016/06/30/pestel-analysis/
https://www.groupmap.com/portfolio/pestle-analysis
https://www.edrawmax.com/pestel-analysis/

Watch this **video** on youtube: https://www.youtube.com/watch?v=bYn4CyL3r5w&t=122s ,
developed by "Business To You".

Read the following **article** and listen to the **interview** with Michel E. Porter developed by Harvard Business Publishing: https://hbr.org/2008/01/the-five-competitive-forces-that-shape-strategy

For more **PESTEL analysis examples**: https://pestleanalysis.com/category/pest-analysis/examples/

Let's do it in practice!

Activity

In the context of the selected sector, identify a change in any of the dimensions that has been the main driver of the emergence of disruptive business models that has been the origin of the disappearance of dominant business models in the industry.

To develop this activity, we recommend you to:

1. Select a company with a disruptive business model (for example, Netflix vs rental shops)

2. Select a dimension that has been critical

3. Identify the change that has led to the appearance of the new business

Learning outcomes/objectives of the activity:

- Get knowledge on business models and its relations with the environment

- Analyze context dimensions

- Identify change in the dimensions

- Identify innovation (disruptive models)

This activity is the evaluation of module 2, you need to complete it to finish the course.

Description: Download the figure and complete the boxes with information regarding:

- Which is the change that you identified?

- In which dimension do this change fits?

- Which is the disruptive business model originated?

- Which is the traditional business model that has changed or disappeared?

Upload/Send your activity once completed.

Access to the activity template →

Activity 2. Dimensions of the environment and their link to ambiguity, uncertainty, and risk

Answer the following questions:

Which is the change that you identified?

In which dimension do this change fits?

Which is the disruptive business model originated?

Which is the traditional business model that has changed or disappeared?

This third block introduces different methodologies and tools that allow reducing the uncertainty that affects decision-making: Empathy Map, Value Proposition Canvas, Lean Start-up Method, Business Model Canvas and SWOT matrix. Interpretation of the challenge as a concise response to unresolved needs.

During this block we are going to introduce different methodologies and tools that will allow to **reduce the uncertainty**. The process project development is based on a set of hypotheses thar are related to different sources of uncertainty. Different tools are available to reduce uncertainty at each of these stages. Thus, in this block you will learn how to apply the following tools:

1. **Empathy Map** and **Value Proposition Canvas**, to reduce the uncertainty around the necessity and the value proposed to meet this need.

2. **Lean Start-up method**, to reduce the uncertainty around the definition and design of the solution.

3. **Business Model Canvas**, to reduce the uncertainty in the development process of business model, in relation to the industry.

4. **SWOT Matrix**, to reduce the uncertainty about the context, the ecosystem and how it affects the project and its evolution.

1. Empathy Map and Value Proposition Canvas

An empathy map is a collaborative visualization used to articulate what we know about a particular type of user. Empathy maps help us build empathy with our end users taking into account who they are, what they think, feel, see or say, in order to:

1) create a shared understanding of user needs.
2) Reduce uncertainty and aid in decision making.

When based on quality data an Empathy Map can:

- Remove bias from our designs and align the team on a single, shared understanding of the user.
- Discover weaknesses in our research.
- Uncover user needs that the user themselves may not even be aware of.
- Understand what drives users' behaviors.
- Guide us towards meaningful innovation.
- Improve customer experience.
- Design trainings or design better work environments.

It is a recommended tool at **the beginning of the design process**. Even if it is very beneficial for a company to keep it alive to understand the changes in terms of needs of the market. It can be developed both with primary and secondary data.

An Empathy Map can be developed considering one user or a certain group of users. In this sense we can differentiate:

One User Empathy Map

Individual maps: they are usually based on a user interview or a user's log from a diary study.
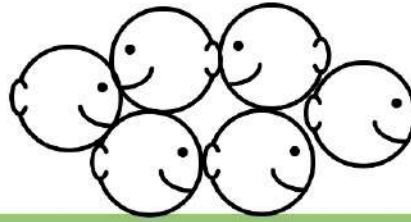
Aggregated Empathy Map

They represent a user segment, rather than one particular user. They are usually created by combining multiple individual empathy maps from users who exhibit similar behaviors and can be grouped into one segment.

They can also become ways to summarize other qualitative data like surveys and field studies.

Both the process of making an empathy map and the finished artifact have important benefits for the organization:

On the one hand, it captures who a user or persona is: distill and categorize your knowledge of the user into one place.

On the other hand, it communicates a user or persona to others: illustrate user attitudes and behaviors. Once created, it should act as a source of truth throughout a project and protect it from bias or unfounded assumptions.

Traditional empathy maps are split into 4 quadrants (*Says*, *Thinks*, *Does*, and *Feels*), with the user or persona in the middle. But this model has evolved during time and now an Empathy Map normally contains the following blocks:

1. **WHO are we empathizing with?**
2. **What to they need to DO?**
3. **What to they SEE?**
4. **What do they SAY?**
5. **What do they DO?**
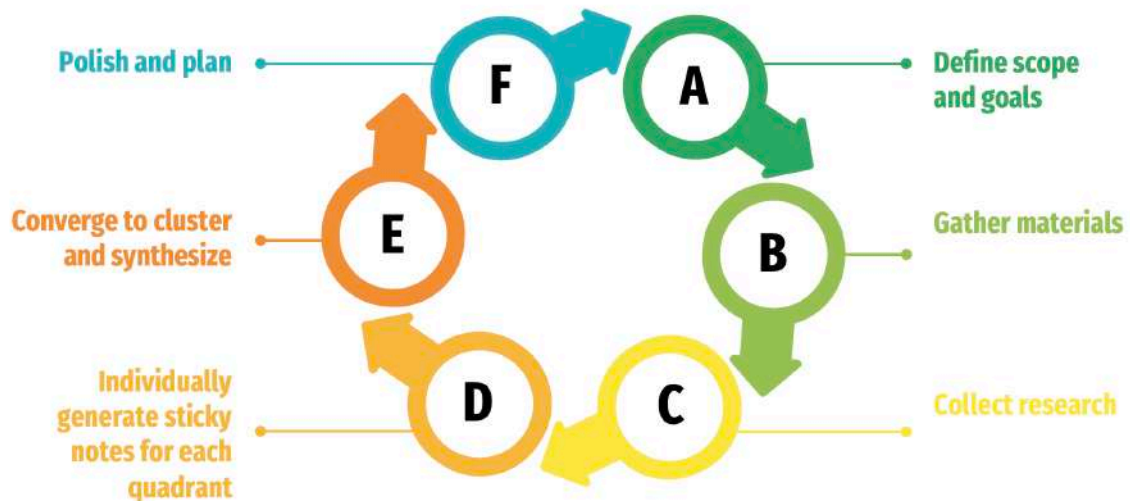6. **What do they HEAR?**
7. **What do they THINK and FEEL?**

EMPATHY MAP

SAYS   **THINKS**

USER

DOES   **FEELS**

① WHO are we empathizing with?
Who is the person we want to understand?
What is the situation they are in?
What is their role in the situation?

GOAL

② What do they need to DO?
What do they need to do differently?
What job(s) do they want or need to get done?
What decision(s) do they need to make?
How will we know they were successful?

⑦ What do they THINK and FEEL?

PAINS
What are their fears,
frustrations, and anxieties?

GAINS
What are their wants,
needs, hopes and dreams?

③ What do they SEE?
What do they see in the marketplace?
What do they see in their immediate environment?
What do they see others saying and doing?
What are they watching and reading?

⑥ What do they HEAR?
What are they hearing others say?
What are they hearing from friends?
What are they hearing from colleagues?
What are they hearing second-hand?

④ What do they SAY?
What have we heard them say?
What can we imagine them saying?

What other thoughts and feelings might motivate their behavior?

⑤ What do they DO?
What do they do today?
What behavior have we observed?
What can we imagine them doing?

A

Process: How to Build an Empathy Map

Go through the following steps to create a valid and useful empathy map:

How to Build an Empathy Map

Polish and plan — F

Converge to cluster and synthesize — E

Individually generate sticky notes for each quadrant — D

Define scope and goals — A

Gather materials — B

Collect research — C

A   Define scope and goals

a.   **What user or persona will you map?** Will you map a persona or an individual user? Always start with a 1:1 mapping (1 user/persona per empathy map). This means that, if you have multiple personas, there should be an empathy map for each.

a.   **Define your primary purpose for empathy mapping.** Is it to align the team on your user? If so, be sure everyone is present during the empathy-mapping activity. Is it to analyse an interview transcript? If so, set a clear scope and timebox your effort to ensure you have time to map multiple user interviews.

B   Gather materials

Your purpose should dictate the medium you use to create an empathy map. If you will be working with an entire team, have a large whiteboard, sticky notes, and markers readily available. (The outcome will look somewhat like the illustration above.) If empathy mapping alone, create a system that works for you. The easier to share out with the rest of the team, the better.

C Collect research

Gather the research you will be using to fuel your empathy map. Empathy mapping is a qualitative method, so you will need qualitative inputs: user interviews, field studies, diary studies, listening sessions, or qualitative surveys.

D Individually generate sticky notes for each quadrant

Once you have research inputs, you can proceed to mapping as a team. In the beginning, everybody should read through the research individually. As each team member digests the data, they can fill out sticky notes that align to the four quadrants. Next, team members can add their notes to the map on the whiteboard.

E Converge to cluster and synthesize

In this step, the team moves through the stickies on the board collaboratively and clusters similar notes that belong to the same quadrant. Name your clusters with themes that represent each group (for example, "validation from others" or "research"). Repeat themes in each quadrant if necessary. The activity of clustering facilitates discussion and alignment — the goal being to arrive at a shared understanding of your user by all team members.

Once your empathy map is clustered, you can begin to vocalize and align as a team on your findings. What outliers (or data points that did not fit in any cluster) are there? What themes were repeated in all the quadrants? What themes only exist in one quadrant? What gaps exist in our understanding?
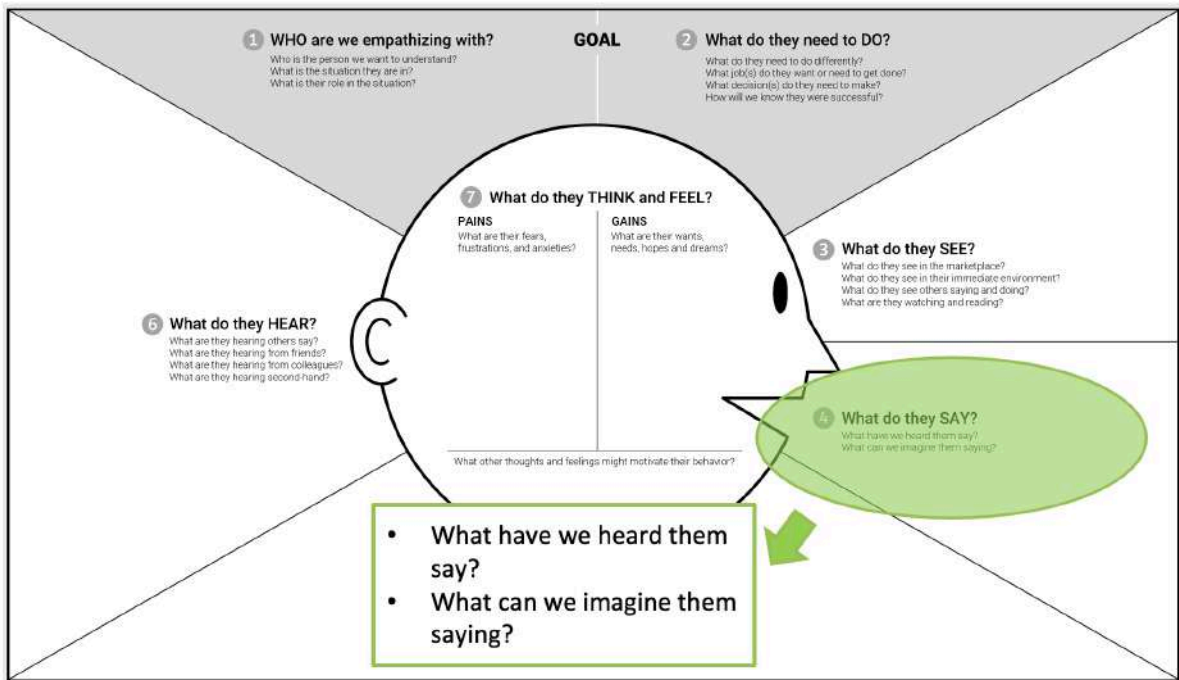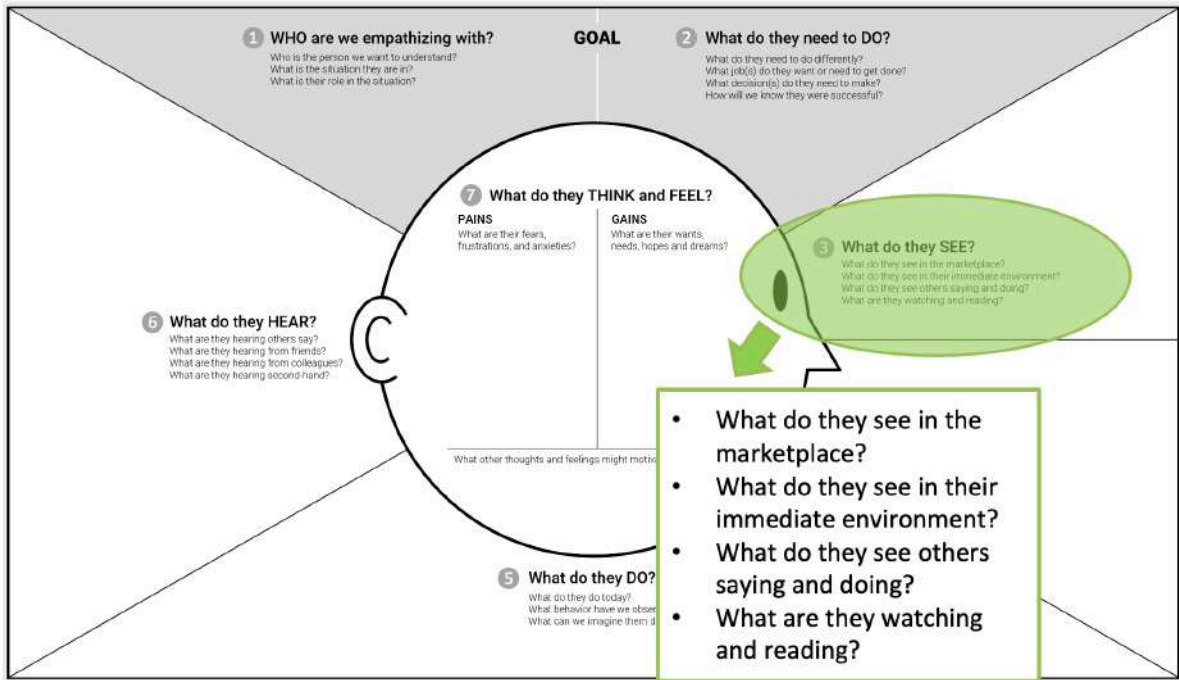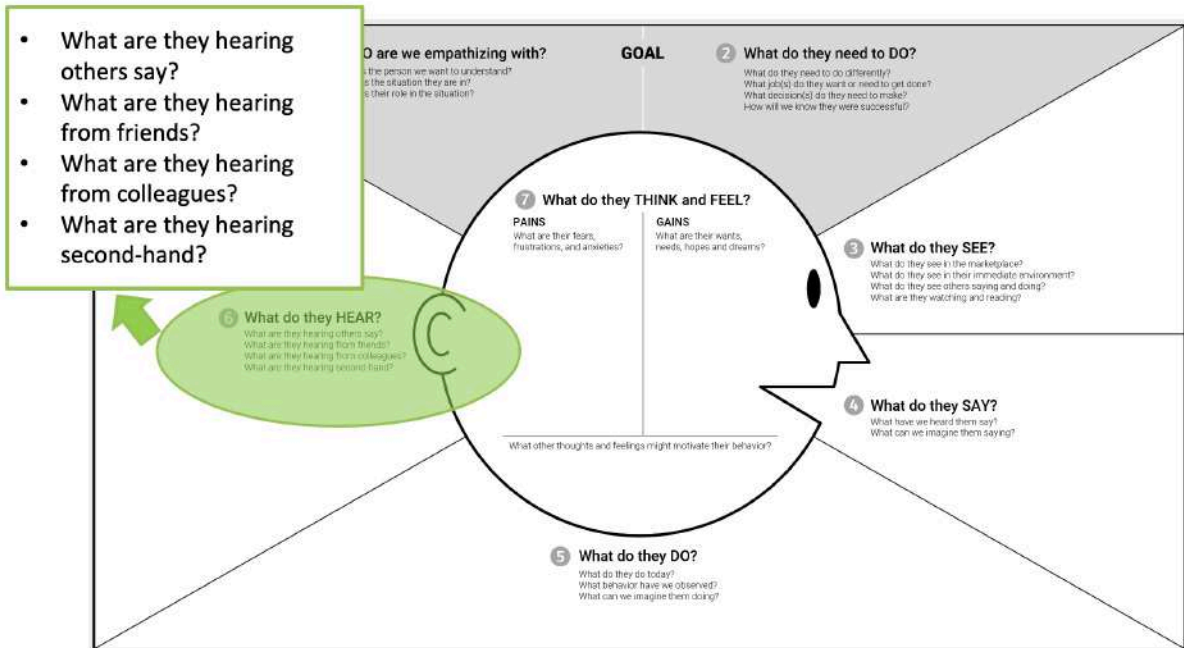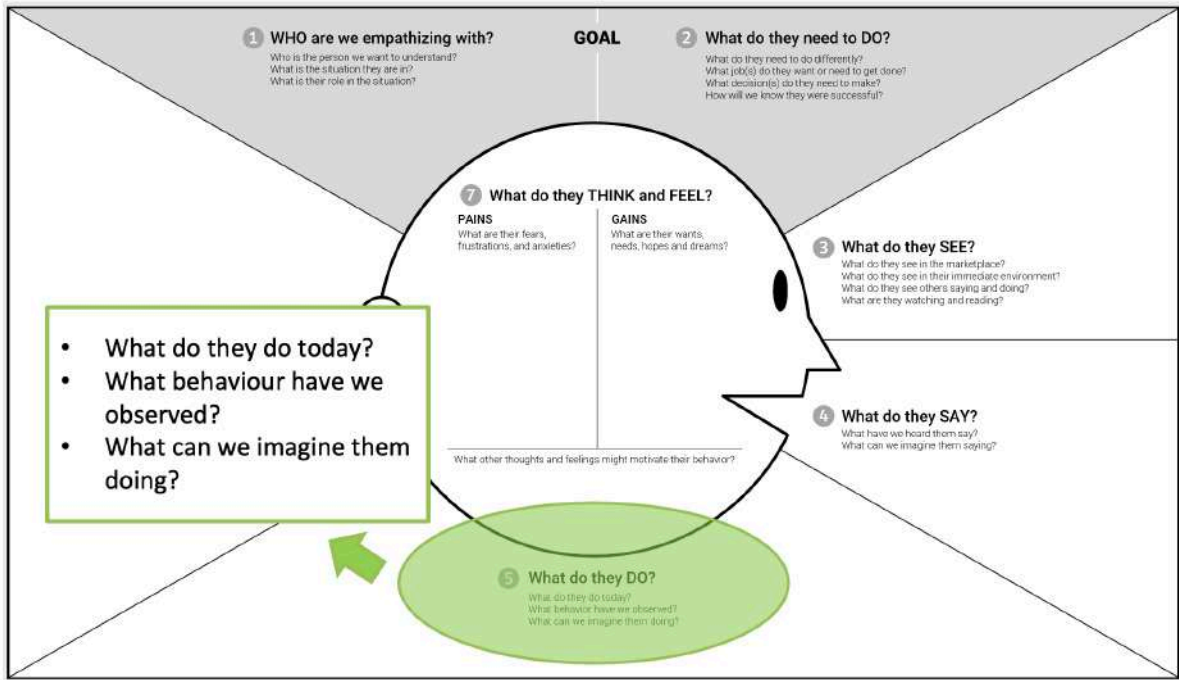
F Polish and plan

If you feel that you need more detail or you have unique needs, adapt the map by including additional quadrants (like Goals the example below) or by increasing specificity to existing quadrants. Depending on the purpose of your empathy map, polish and digitize the output accordingly. Be sure to include the user, any outstanding questions, the date and version number.

Once we know the recommended steps for developing an empathy map, the following figures guide us through the 7 quadrants, offering key questions to help us complete each one:
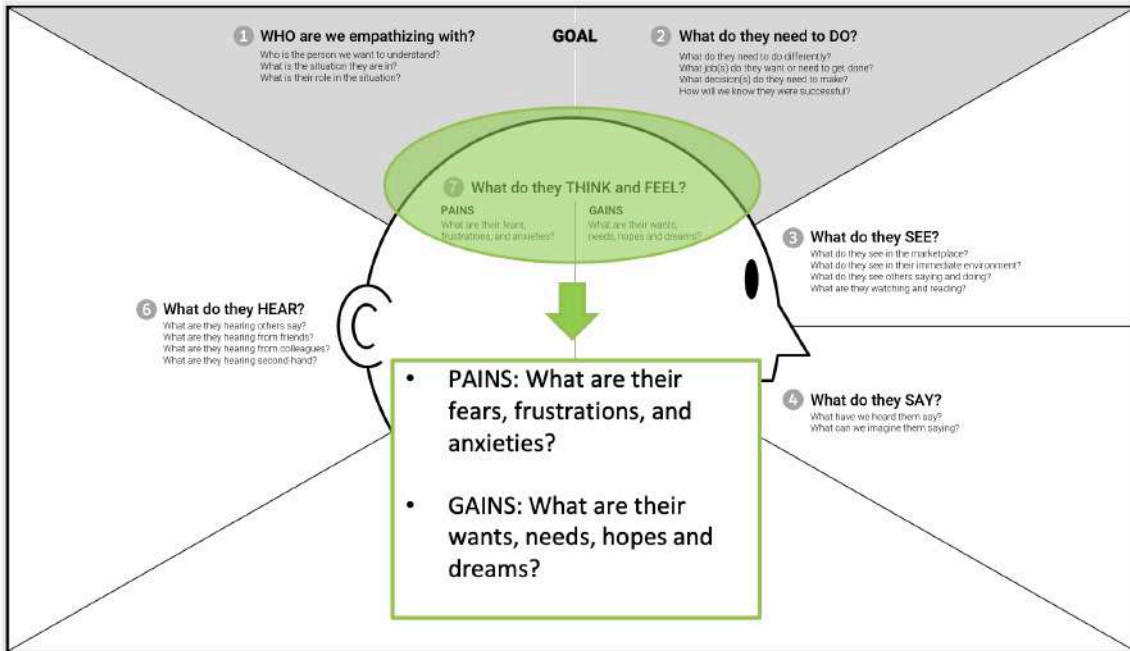
Diagram 1

GOAL

1 WHO are we empathizing with?
Who is the person we want to understand?
What is the situation they are in?
What is their role in the situation?

2 What do they need to DO?
What do they need to do differently?
What job(s) do they want or need to get done?
What decision(s) do they need to make?
How will we know they were successful?

7 What do they THINK and FEEL?

PAINS
What are their fears, frustrations, and anxieties?

GAINS
What are their wants, needs, hopes and dreams?

3 What do they SEE?
What do they see in the marketplace?
What do they see in their immediate environment?
What do they see others saying and doing?
What are they watching and reading?

4 What do they SAY?
What have we heard them say?
What can we imagine them saying?

What other thoughts and feelings might motivate their behavior?

5 What do they DO?
What do they do today?
What behavior have we observed?
What can we imagine them doing?

- What do they do today?
- What behaviour have we observed?
- What can we imagine them doing?

Diagram 2

- What are they hearing others say?
- What are they hearing from friends?
- What are they hearing from colleagues?
- What are they hearing second-hand?

GOAL

...O are we empathizing with?
...s the person we want to understand?
...s the situation they are in?
...s their role in the situation?

2 What do they need to DO?
What do they need to do differently?
What job(s) do they want or need to get done?
What decision(s) do they need to make?
How will we know they were successful?

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PAINS
What are their fears, frustrations, and anxieties?

GAINS
What are their wants, needs, hopes and dreams?

3 What do they SEE?
What do they see in the marketplace?
What do they see in their immediate environment?
What do they see others saying and doing?
What are they watching and reading?

6 What do they HEAR?
What are they hearing others say?
What are they hearing from friends?
What are they hearing from colleagues?
What are they hearing second-hand?

4 What do they SAY?
What have we heard them say?
What can we imagine them saying?

What other thoughts and feelings might motivate their behavior?

5 What do they DO?
What do they do today?
What behavior have we observed?
What can we imagine them doing?

① WHO are we empathizing with?
Who is the person we want to understand?
What is the situation they are in?
What is their role in the situation?

GOAL

② What do they need to DO?
What do they need to do differently?
What job(s) do they want or need to get done?
What decision(s) do they need to make?
How will we know they were successful?

⑦ What do they THINK and FEEL?

PAINS
What are their fears,
frustrations, and anxieties?

GAINS
What are their wants,
needs, hopes and dreams?

③ What do they SEE?
What do they see in the marketplace?
What do they see in their immediate environment?
What do they see others saying and doing?
What are they watching and reading?

⑥ What do they HEAR?
What are they hearing others say?
What are they hearing from friends?
What are they hearing from colleagues?
What are they hearing second-hand?

- **PAINS: What are their fears, frustrations, and anxieties?**

- **GAINS: What are their wants, needs, hopes and dreams?**

④ What do they SAY?
What have we heard them say?
What can we imagine them saying?

Value Proposition Canvas

The Value Proposition Canvas is also a tool that helps us to reduce the uncertainty in the first stage of maket necesity definition and value proposition. It focuses on two of the most relevant aspects that will be developed in the definition of the business model and that are part of the nine blocks represented with the Business Model Canvas tool. These are: the customer segment and the value proposition.
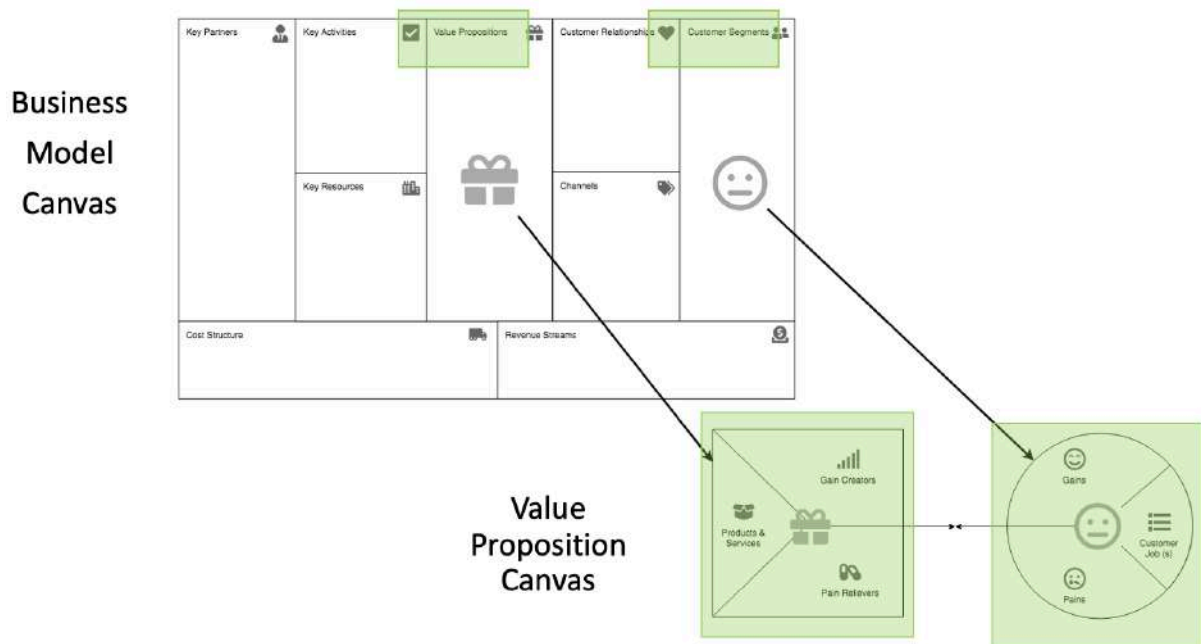
The Value Proposition Canvas is a framework which can help ensure that a product or service is positioned around what the customer values and needs. The Value Proposition Canvas was initially developed by Dr Alexander Osterwalder as a framework to ensure that there is a fit between the product and market.
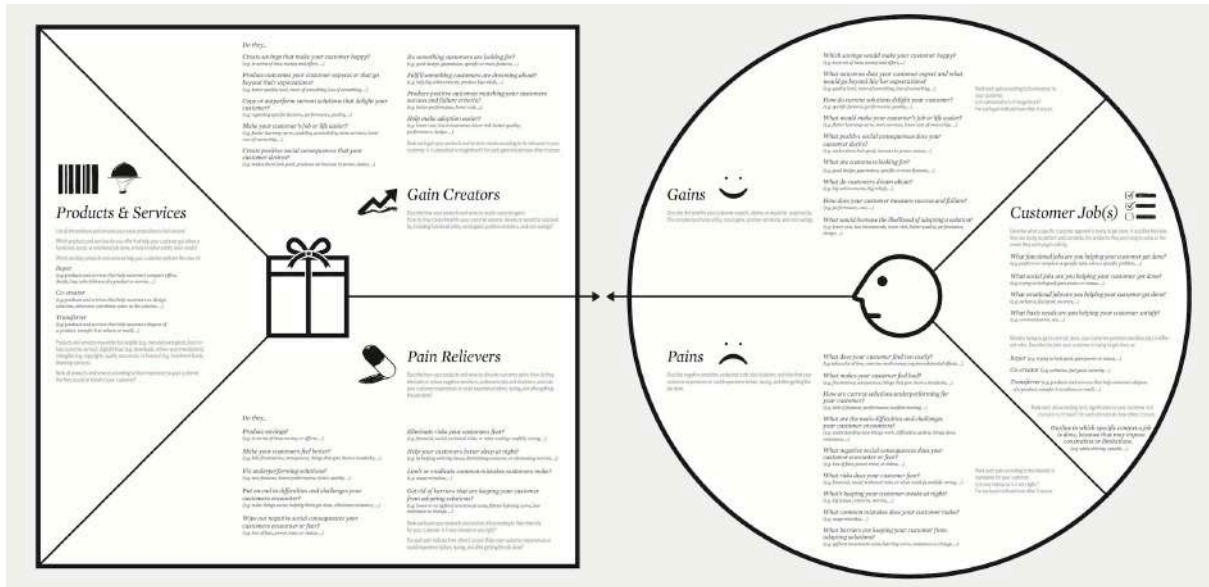
The Value Proposition Canvas can be divided in two blocks: 1. Customer block and 2. Value Block. To apply the tool you always start with the identification of the need, that is to say, you start with the definition of the customer:
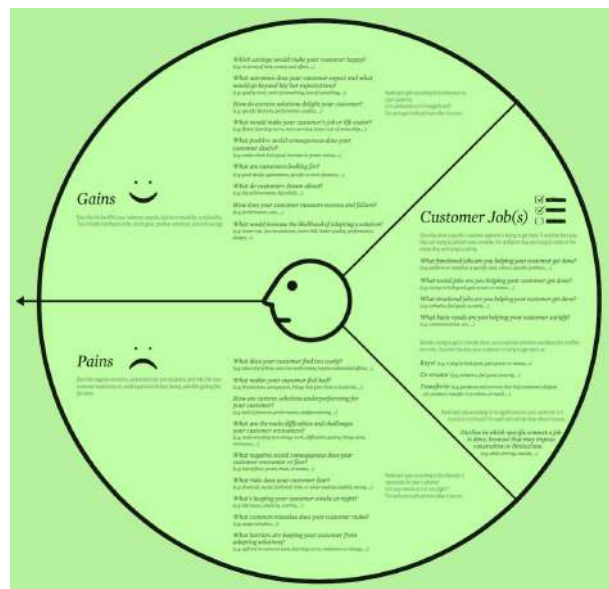
Developing knowledge on your customer will help you to reduce uncertainty in this first stage. The best way to get this knowledge is… EMPATHIZING….And we know how to empathize! If we have done the Empathy Map you have been able to identify the PAINS and GAINS of your customer. In this case it will be easy, you transfer this informtion to the corresponding quadrants of the Value Proposition Canvas.
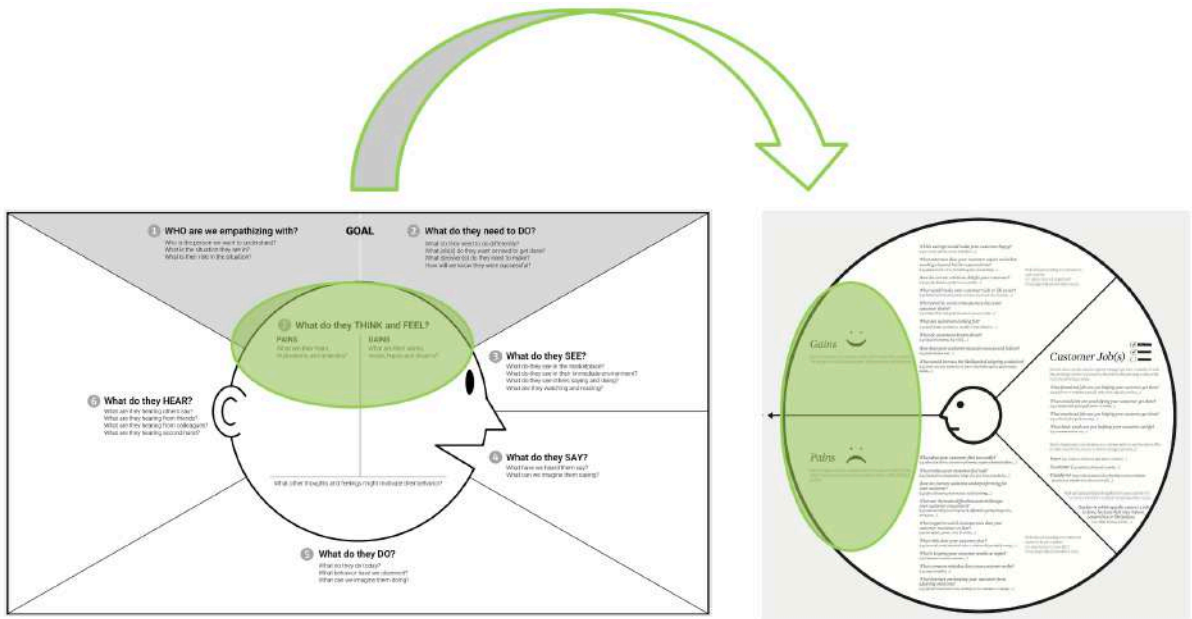
If you have not developed the Empathy Map first, you can also use the Value Proposition Tool directly. The following figures will give you clues on how to fill in each of the quadrants.

GAINS

What kinds of **savings** would make my customer happy? (time, money, energy, etc.)

What **results** do my customer expect? Which ones can mesmerize them? (quality level, profits and gains, savings and improvements, etc.)

What **current solutions** enchant my customer? (functionalities, performance, quality, etc.)

What can make my customer's **tasks easier**? (lower learning curve, more services, lower costs, etc.)

What **positive consequences** do my customers want? (power, status, acknowledgment, satisfaction, motivation, etc.)

What is my customer **looking for**? (design, guarantees, specific features, functionality, etc.)

How does my customer **measure success and failure**? (cost, performance, speed, quality, beauty, likes on social networks, etc.)

What would **increase my customer's chances** of adopting a solution? (lower investment, longer guarantee, better performance/quality/design, etc.)
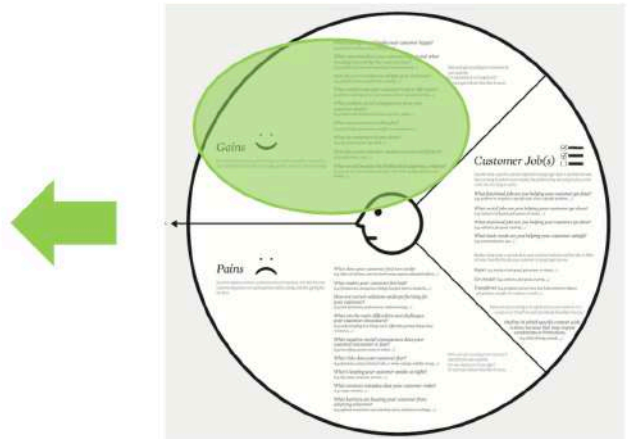
PAINS

*What is **expensive** for my customer? (regarding time, cost, effort, etc.)*

*What makes my customer **feel bad**? (frustrations, disappointments, failures, physical pain, etc.)*

*What are the **main difficulties and cha**llenges of my customer's faces? (physical, intellectual or emotional limitations to do something, resistance, understanding certain situations, etc.)*

*How current solutions are **leaving to be desired** for my customer? (bad performance, much effort, lack of functionality, defects, etc.)*

*What are the **negative consequences** for my customer? (losses of power, status, money, time, trust, etc.)*

*What **risks** is my customer afraid of? (financial, social, technical, etc.)*

*What is keeping my customer **awake** at night? (concerns, challenges, debts, bad health, etc.)*

*What are the most common **mistakes** my customer makes? (creating expectations, misunderstandings, errors in use, etc.)*

*What is **preventing** my customer from adopting solutions? (investment, learning curve, resistance to changes, etc.)*
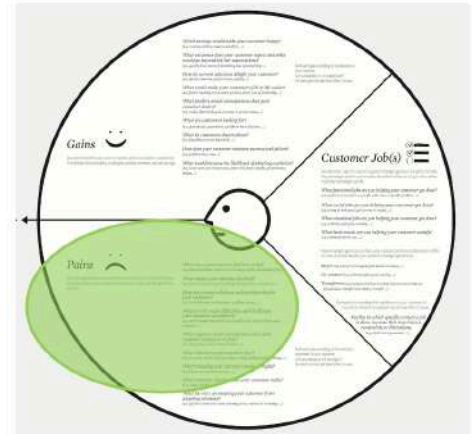
CUSTOMER JOB(S)

Describe what a specific customer segment is trying to get done.

*What **functional jobs** are you helping your customer get done? (e.g. perform or complete a specific task, solve a specific problem)*

*What **social jobs** are you helping your customer get done? (e.g. gain power or status)*

*What **emotional jobs** are you helping your customer get done? (e.g. feel good, security...)*

*What **basic needs** are you helping your customer satisfy? (e.g. communication)*
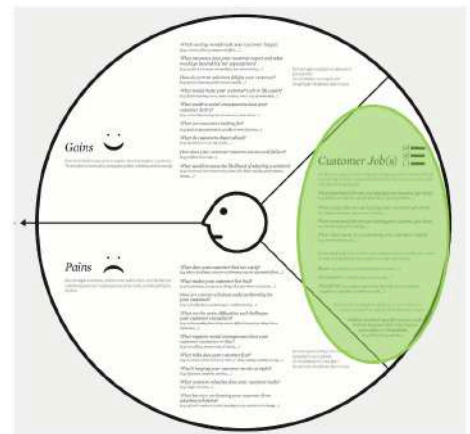
Once we have defined the customer block, we get to the second step of the development of the Value Proposition Canvas: The definition of the value that fit the detected need. In this case we work with the left side of the model, the Value Block.
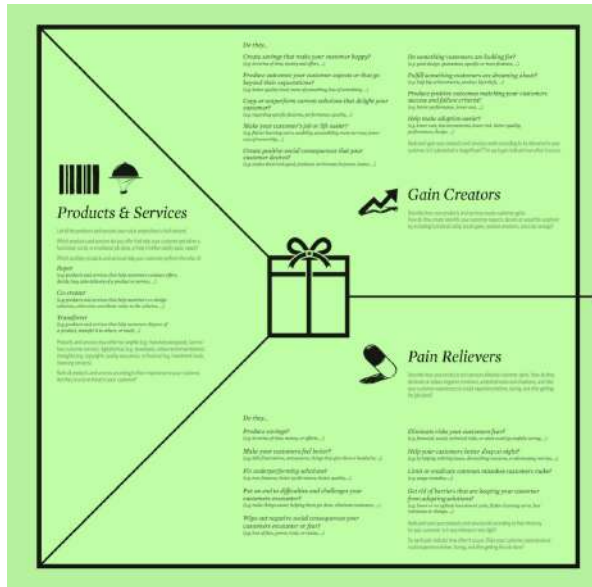
The following figures will give you clues on how to fill in each of the quadrants of the Value Block.

GAIN CREATORS

Benefits and positive outcomes your solution can create for your users.

Can your product and service:
... produce outcomes your customers expect or that exceed their expectations?

... do something specific that customers are looking for?

... fulfill a desire customers dream about? By helping them achieve their aspirations or getting relief from hardship?

.. produce positive outcomes matching your customers' success and failure criteria

PAIN RELIEVERS

Covers ways in which your products and services alleviate pain, eliminate annoyances, or remove risks related to achieving your customer jobs.

Can your product and service:
... produce savings?
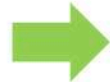
.... put an end to difficulties and challenges your customers encounter?

... wipe out negative social consequences your customers encounter or fear?

... eliminate risks your customers fear?

... eliminate barriers that are keeping your customer from adopting value propositions?

PRODUCTS & SERVICES

List all the products and services your value proposition is built around.

Which products and services do you offer that help your customer get either a functional, social or emotional job done, or help him/her satisfy basic needs?

-Tangible

-Digital/virtual

-Intangible

-Financial

Once we have filled in all the boxes we come to the last and most important step: Make both blocks fit! The value proposed must fit the detected need to reduce uncertainty in this first stage. With this practice you boost the: **Product Market FIT** of your project!

MAKE IT FIT!
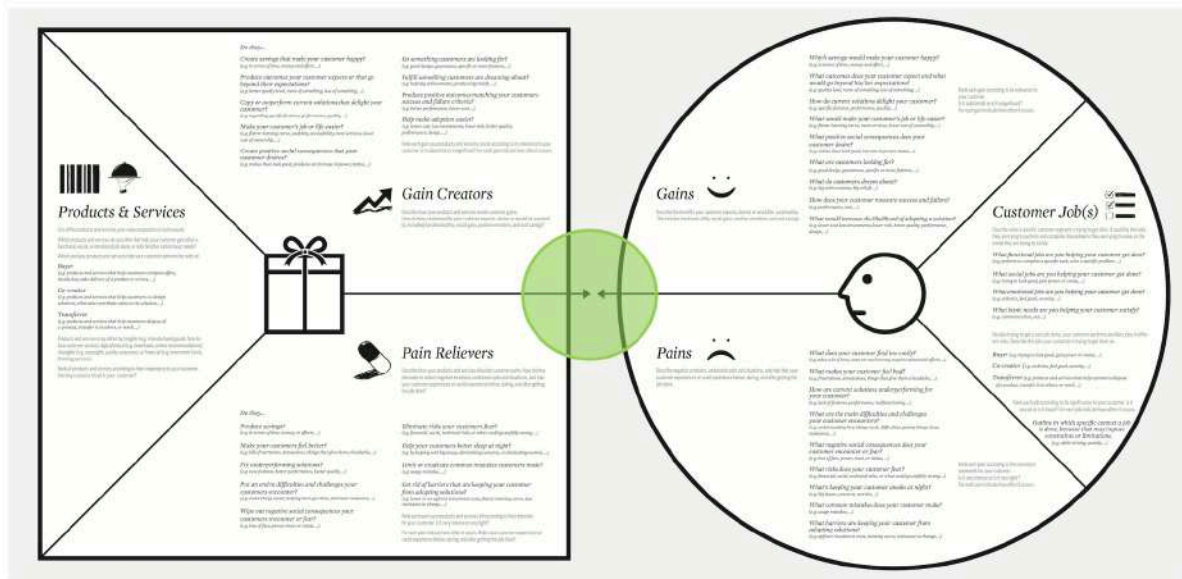
Sources, learn more!

Read more about the Value Proposition Canvas: https://businessmodelanalyst.com/value-proposition-canvas/

Watch the video: "What is an Empathy Map?", developed by PlaybookUX: https://www.youtube.com/watch?v=QwF9a56WFWA

Watch the video: "What's the Value Proposition Canvas and How Do I Use It?", developed by PlaybookUX: https://www.youtube.com/watch?v=ghdQeY98LQM

2. Lean Start-up method

This second block presents a methodology that helps to reduce the uncertainty around the definition and design of the solution. "Lean Startup" is an approach to launching businesses and products based on:

- Validated learning,
- Scientific experimentation,
- Iteration in product launches to shorten development cycles,
- Measuring progress and
- Feedback from customers.

With this approach, startups can design their products or services without a large initial investment or costly launch. Eric Ries originally developed this methodology in 2008. Since then, Lean Startup has gained popularity outside of Silicon Valley, taking root across the globe.

As this methodology involves constantly validating our learning, it's essential to act quickly. The idea is to test our hypotheses as soon as possible, rather than waiting until we have a fully finished product. Having a real customer's opinion helps us decide if we're heading in the right direction or if we should change tack.

The scientific method bases its value on a cycle not unlike the one Lean Startup follows. It's important to get to know this cycle and understand how it works. In a nutshell, science works like this:

Lean Start-up method

Analyse the results, check the hypothesis and start again.

Observe reality and suggest a problem, **conceptualise.**

Experiment with reality, measure, validate and test

Formulate a **hypothesis** and expected solutions/results.
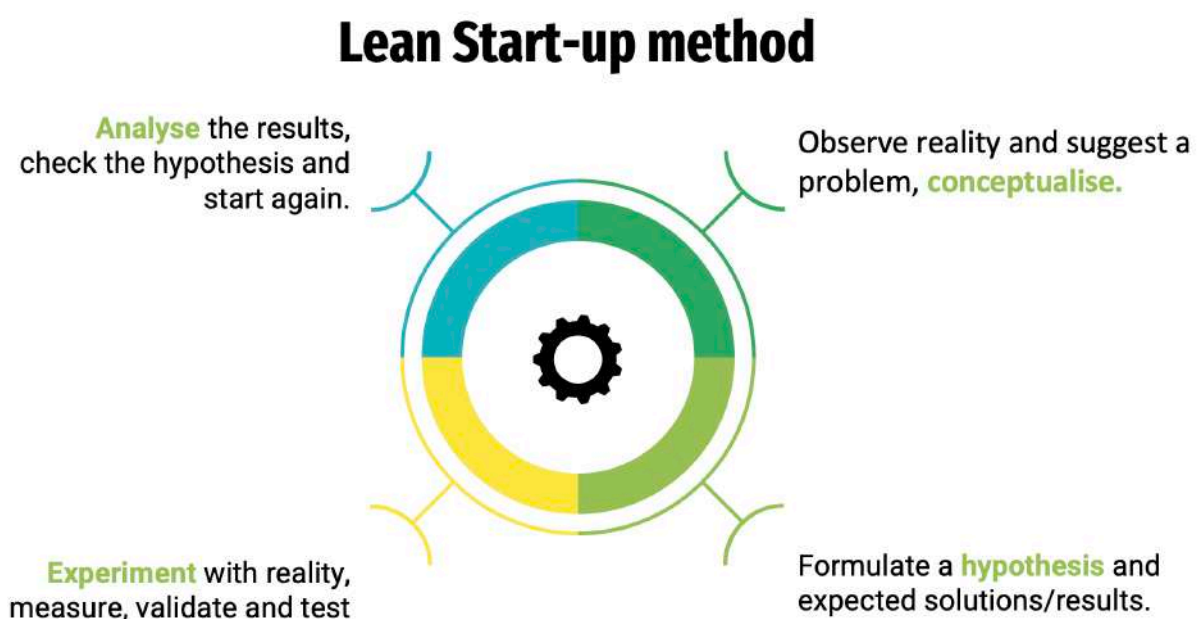
100% Customer, 100% MVP

If science is based on observation and experimentation to obtain results, then Lean Startup is all about compulsive observation of the customer, a move away from the traditional product-centred focus. The aim is to learn and put our hypotheses to the test.

The results obtained from the constant validation process with customers will tell us how to proceed.

Lean Startup is the complete opposite of the more classic development approach where the product is fully developed and then launched, with the hope that it will hit the mark.

This is how the concept of Minimum Viable Product (MVP) was born. It's as simple as working with a basic version of our product, but we'll come back to this later.

The 5 pillars of Lean Startup

You don't need to be in a garage in Silicon Valley to create a startup. Innovation is open. It can be the response to any problem or situation. This methodology is about knowing how to channel it and, what's even more important, bringing your idea to life.

ENTREPRENEURSHIP IS MANAGEMENT.

Like the scientific model, all learning has to be validated by your experiments. Constantly validating our progress, measuring our results and learning from our mistakes are fundamental in this type of learning environment.

INNOVATION ACCOUNTING.

The main activity of a startup is to transform ideas into products, measure how users respond and then decide whether to pivot or persevere. This cycle should accelerate the process and give us constant feedback.

ENTREPRENEURS ARE EVERYWHERE.

Creating a startup involves learning about a variety of aspects. For us, an MBA isn't enough; it's much more useful to have a #DIY-MBA, i.e., to learn by doing.

VALIDATED LEARNING.

Startups need new types of control, accounting, measures, etc. We have to constantly measure and know if we're reaching our short-term goals. We must 'innovate our accounting'.

BUILD - MEASURE - LEARN.

Thus, the methodology of Lean Startup centres around build, measure, and learn.

Build

This methodology begins with the creation of a minimum viable product, which refers to a service or product that has enough features to keep customers satisfied while you test your theory that the product can be successful on the market. Keep in mind that an MVP shouldn't be provided to all of your customers. Instead, you should select a small subset of customers across a range of demographics who can use your product.

Since building is the first aspect of this methodology, it's highly recommended that you begin creating a basic product or service in the early days of your startup.

Measure

When looking at the measure component of this methodology, it's essential that you effectively measure the results of your minimum viable product while you continue to develop the product. The feedback that's provided to you by these customers can be used to fine-tune the product and make it more feature-rich. If you find that the very idea of your MVP isn't gaining traction with the customers that the MVP was provided to, you should be able to get rid of the basic product without having used too much of your resources.

The feedback that you receive can be measured in a variety of ways. If you are creating a business that exists solely online, you would gain feedback by providing customers with surveys and by looking at the analytics for your website to determine what you're doing well and what could be improved.

Learn

It's not enough to measure the results from the product that you've received and to obtain feedback from the initial customers. If you want to eventually create a product or service that's ready to be placed on the market, it's important that you learn from the data and feedback that you've received, which isn't always an easy thing to do.

For instance, some of the feedback that you receive might not lead to the creation of a successful product. However, this feedback is best used to identify which aspects of the product aren't working and which ones may need to be refined. If you can effectively learn from the results of the product testing, you should be able to develop a product that meets the needs of your target audience.
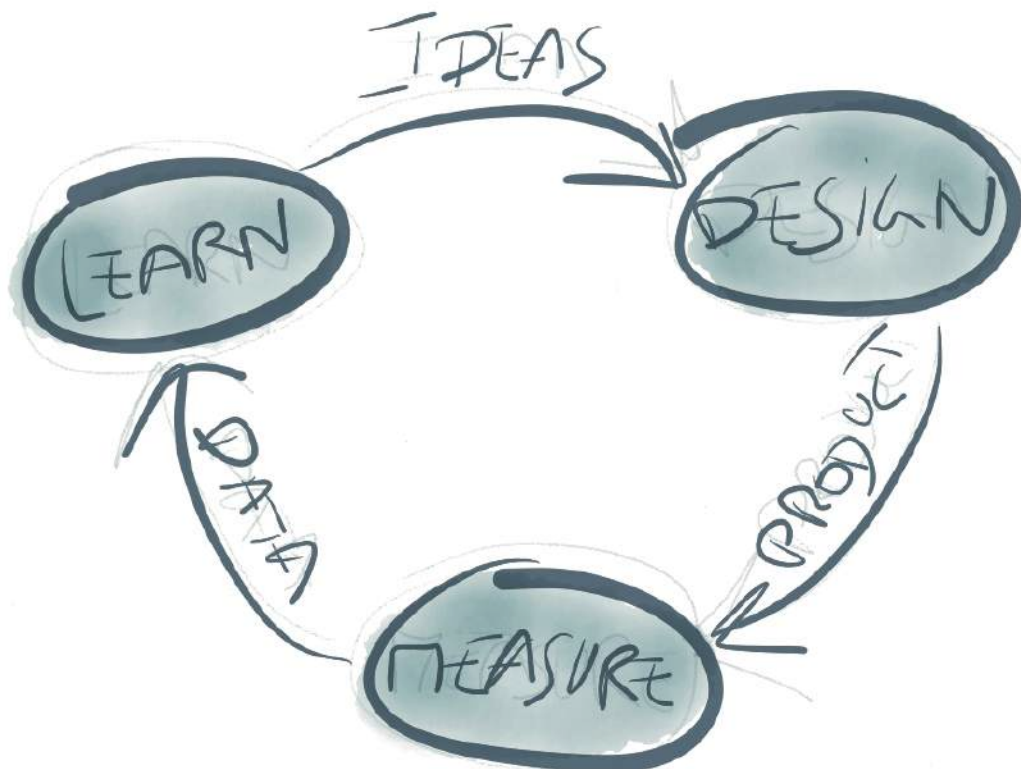
Examples of companies who successfully adopted Lean Startup methods

Dropbox is a well-known cloud file hosting service. It started with an MVP, a video that demonstrated what the product does and immediately attracted thousands of users just for the beta version. Finally, after seven months, Dropbox launched its validated product that got a million users, and today, it has over 700 million users.

Zappos, a pioneer in online shoe retailers, started with an essential website. The founder Nick Swinmurn uploaded pictures of the inventory and shoes from the local stores and began selling them online. Once he realized the demand, he scaled it into a billion-dollar business.

Slack, the popular messaging platform loved by the developers, was first created as an internal office tool. The company TinySpeck wanted to launch a game called Glitch, which found no success. But as their staff loved the messaging tool, they decided to scale and launch the app into the market.

Sources, learn more!

Read the following article: https://agileken.com/lean-startup-methodology/#Dropbox

More information on the methodology: https://www.universitylabpartners.org/blog/what-is-lean-startup-methodology#build

3. Business Model Canvas

The third dimension where we identify conditions of uncertainty is in the phase of business model development, in relation to the industry. Business Model Canvas (BMC from now on) is presented as a tool that help us to reduce this uncertainty by the definition of 9 fundamental aspects of a business. So, the Business Model is a tactical plan to guide entrepreneurs navigate their way from ideation to building a successful startup. It is a template to design business models. It's an instrument to help us learn and work with our business model from a comprehensive viewpoint of the entire company.

It was designed by **Alex Osterwalder** with the help of **Yves Pigneur**, and launched in Business Model Generation, a must read!

The book also looks at the advantages and disadvantages of adopting different pricing strategies (freemium, long tail, etc.) and how they relate with blue ocean strategy tools. We can use the BMC from a very early phase to help us get our thoughts in order. We have to master how to use it so we can analyse our ideas and projects. BMC has become a code language among entrepreneurs and business people when sharing, debating, reviewing and comparing business ideas.
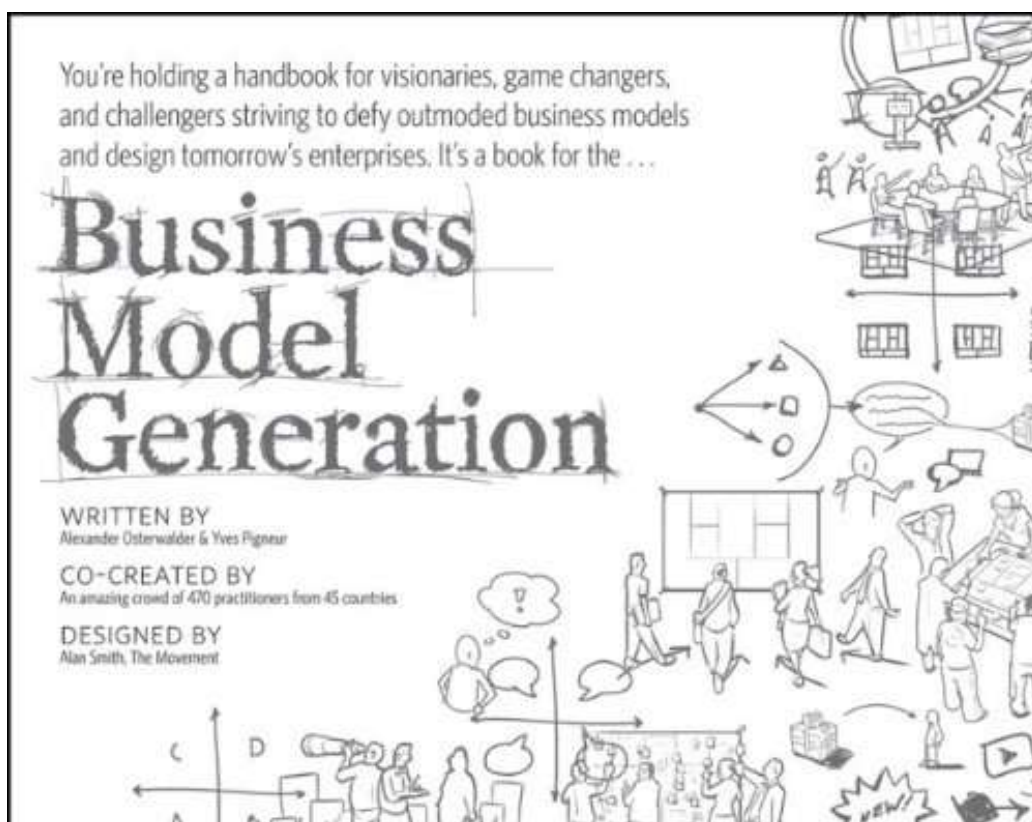
To work on our ideas, we use a template incorporating the most relevant aspects for creating a business model. Key aspects that otherwise we might have overlooked.

We use post-its so we can change things quickly and easily. If we're a team, it's a good idea to print out a large copy so everyone can work on it together. In the 9 blocks on the canvas, we find most of the basic questions we need to ask in relation to our business idea. By answering these questions, block by block we build our business model.

BMS is not a substitute for a business plan. It's a practical, fast and agile tool that lets us grasp the complexity of our new business from different points of view. The 'prototyped' idea has to be on paper from the start. Then, as we get closer to defining our idea, many aspects will slowly change. If a business has to conduct an in-depth study into the different market segments, product lines, channels, etc., it might need more than one canvas.

The Business Model Canvas lets you approach ideas with a flexible mind-set, whether analysing an existing idea or coming up with something new.

While you're free to work with this tool however you want, this is the recommended order for tackling your BMC:

1. **Customer Segments**
2. **Value Propositions**
3. **Channels**
4. **Customer Relationships**
5. **Revenue Streams**
6. **Key Resources**
7. **Key Activities**
8. **Key Partners**
9. **Cost Structure**

This is only a guide. The order might change depending on the circumstances.

The Business Model Canvas

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
8	7	2	4	1
	Key Resources		Channels	
	6		3	

Cost Structure	Revenue Streams
9	5
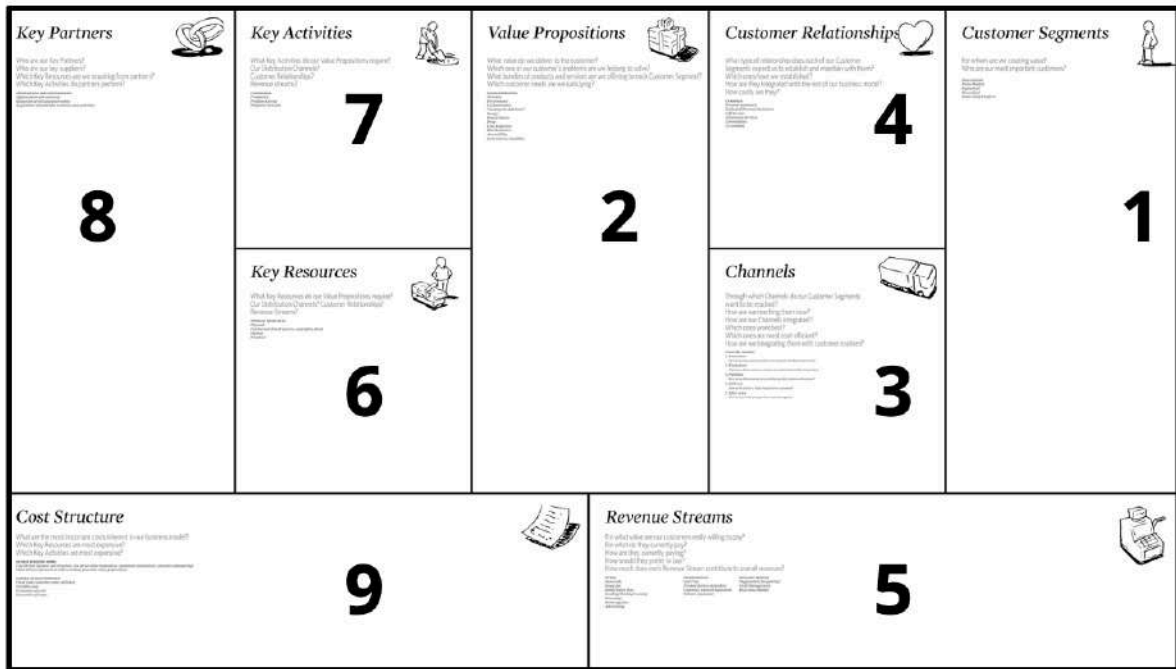
Customer Segments

A company targets one or several market segments.

Since our customers are the foundation of our business model, we have to truly get to know them:

- What are our most important customer segments?
- Do we want to reach the general public, the mass market or a very specific niche market?
- Are there several interdependent customer segments?

1. **Mass Market**
   Large group of customers with similar needs and problems.

2. **Niche Market**
   Specific and specialised segments.

3. **Segmented Market**
   Different value propositions for slightly different market segments.

4. **Diversified Market**
   Market segments that are completely different from one another, with no common ground.

5. **Multi-sided Platforms or Markets**
   Two or more distinct but interdependent market segments, all of which are essential for the business model.
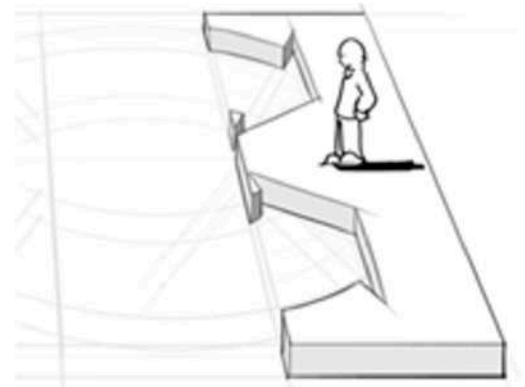
Value Propositions

The goal is to solve problems that customers have been encountering and to satisfy their needs with value propositions.

The value proposition addresses the problem and how we're going to solve it for the customer with our company's products or services.

It also addresses our competitive strategy:
price?
customisation?
savings?
design?

Our value proposition could include differentiating attributes like:

- The **novelty** it introduces
- **Improved performance** in comparison with the competition
- **Customisation** options
- Its **design**
- **Brand equity** or its **position/status**
- Its price
- **Cost reduction**
- **Risk reduction**
- The **accessibility** it provides
- Its **ease of use or usefulness**
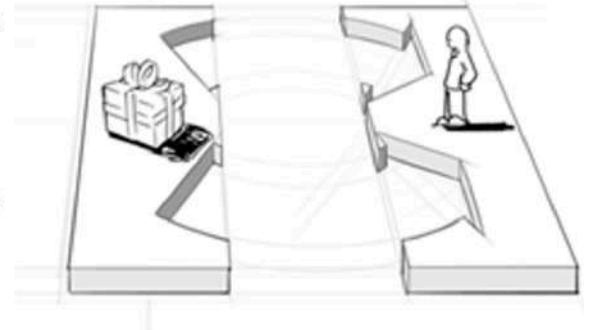
Channels

Value propositions reach customers via communication, distribution and sales channels.

One of the key aspects of any business model is:

How are we going to deliver our value proposition to each customer segment?

The channel is key. Our decisions in this respect will determine the customer experience.

Possible channels include:

- **Direct**
  - Sales team
  - Internet sales
- **Indirect**
  - Our stores
  - Our partners' stores
  - Wholesalers

The channel phases are:

1. **Information**
   How can we introduce our products and services?
2. **Evaluation**
   How can we help customers to evaluate us?
3. **Buying**
   How can customers buy our product or service?
4. **Delivery**
   How do we deliver our value proposition?
5. **After-sales**
   What after-sales services do we offer?
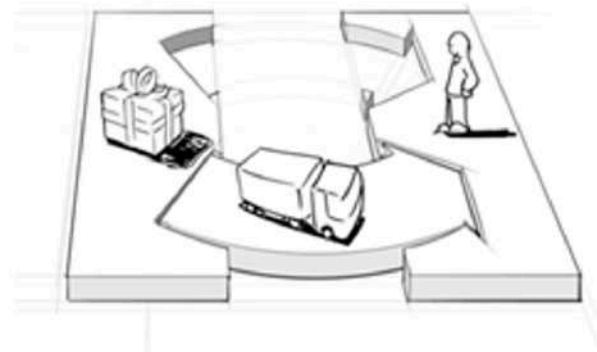
Customer Relationships

Customer relationships are independently established and maintained in the various market segments.

One of the critical aspects for the success of a business model, while also the hardest to achieve, is:

What type of relationship will we have with our customers?

What will our brand mean for them?

This is based on perceptions, so the service design and prototype are very important.

Types of relationships

- **Personal Service**
  REAL communication with a person assisting with the sales process.

- **Exclusive Personal Service**
  Special attention given to a specific customer.

- **Self-service**
  No direct relationship with the customers.

- **Automatic Services**
  More sophisticated services with automatic processes.

- **Communities**
  Groups linked to the product that solve problems for customers.

- **Collaborative Creation**
  The customer community collaborates with the company.
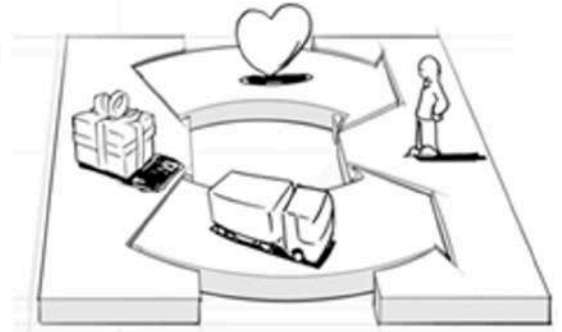
Revenue Streams

Revenue streams are generated when customers acquire the value propositions on offer.

This might seem like stating the obvious, but we still tend to be very conservative when it comes to crafting a revenue strategy, almost always opting for direct selling.

We have to take time to reflect, look for other business models and consider our revenue strategy from a different angle: sales, subscriptions, freemium, etc.

There are different ways of generating revenue:

- Sale of goods
- Pay-per-use
- Subscription
- Borrow / Rent / Leasing
- Granting of licenses
- Brokerage fees
- Publicity

Our business model doesn't have to be limited to a single revenue stream; we can combine several different options.
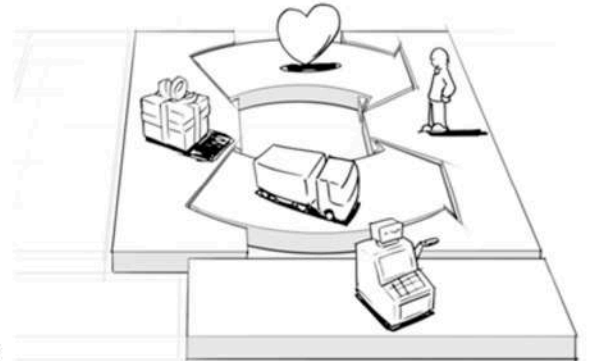
Key Resources

Key resources are the assets required to be able to offer or provide the elements we just described.

To launch our idea on the market (the strategy is described on the right side of the business model), we have to take several steps (left side). One of the most obvious is using diverse resources.

This section includes descriptions of the main resources like type, quantity and intensity.

We can divide the resources into 4 types:

Physical
The physical assets category includes factories, buildings, vehicles, machines, systems, points of sale or distribution networks.

Intellectual
Elements such as brands, private information, patents, copyrights, customer associations and databases, etc. Difficult to build, but makes all the difference.

Human
People, with varying degrees of specialisation and importance, but always present nonetheless.

Economic
Some businesses require them: credit lines, cash, equity options, economic guarantees, etc.
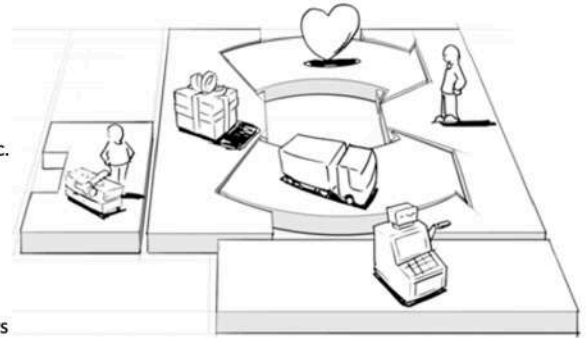
Key Activities

Similar to the previous point, to deliver the value proposition, we have to carry out a series of internal activities (usually including production processes, marketing, etc.).

These activities help us deliver the value proposition to our customers via several channels and with a specific type of relationship.

The key activities can be divided into the following categories:

Production
Related with the design, manufacturing and delivery of a product in large quantities or with superior quality.

Problem solving
Related with the search for new customised solutions for each customer.

Platform / network
Related with businesses based on a platform or system that generates most of the value. Normally in the areas of management, maintenance or promotion/provision of services.
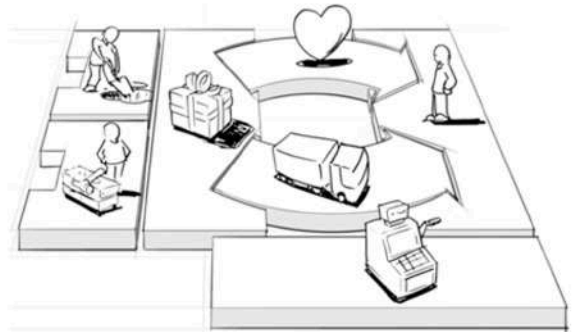
Key Partners

Some activities are outsourced and certain resources are acquired outside of the company.

This section defines the alliances needed to successfully execute our business model. These alliances complement our skills and strengthen our value proposition. As a consequence, we can optimise our resources and reduce uncertainty.

Here are 3 different reasons for establishing associations:

Optimisation and Economy of Scale
Basic customer-supplier relationship, aims to optimise resources and activities.

Reducing Risk and Uncertainty
Aim to reduce risk in competitive environments with a high degree of uncertainty; some startups join an association in one area while competing in another (lobby).

Buying Certain Resources and Activities
The root cause of these associations is the need to get information, licences or access to customers.
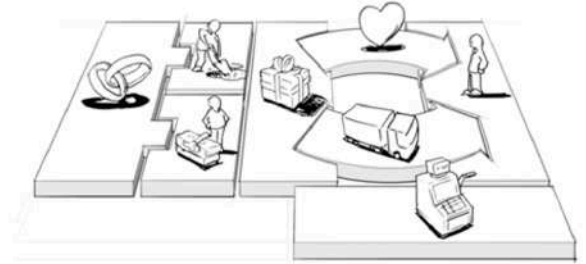
Cost Structure

The different parts of a business model make up the cost structure.

This is about modelling the cost structure of a company. It's usually based on the activities and resources described in the previous points.

The aim is to identify and optimise fixed and variable costs to design a scalable business model. This is definitely one of the areas with the most opportunity for innovation.

There are 2 broad types of cost structures:

Based on Cost
Prioritising cost reduction and the automation or outsourcing of processes.

Based on Value
Prioritising the value proposition.

Cost Structure Features:

Fixed Costs
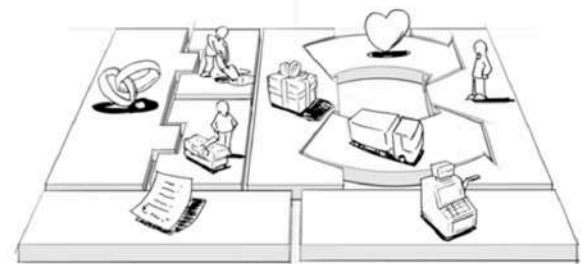They do not vary according to volume.

Variable Costs
They vary according to volume or production.

Economy of Scale
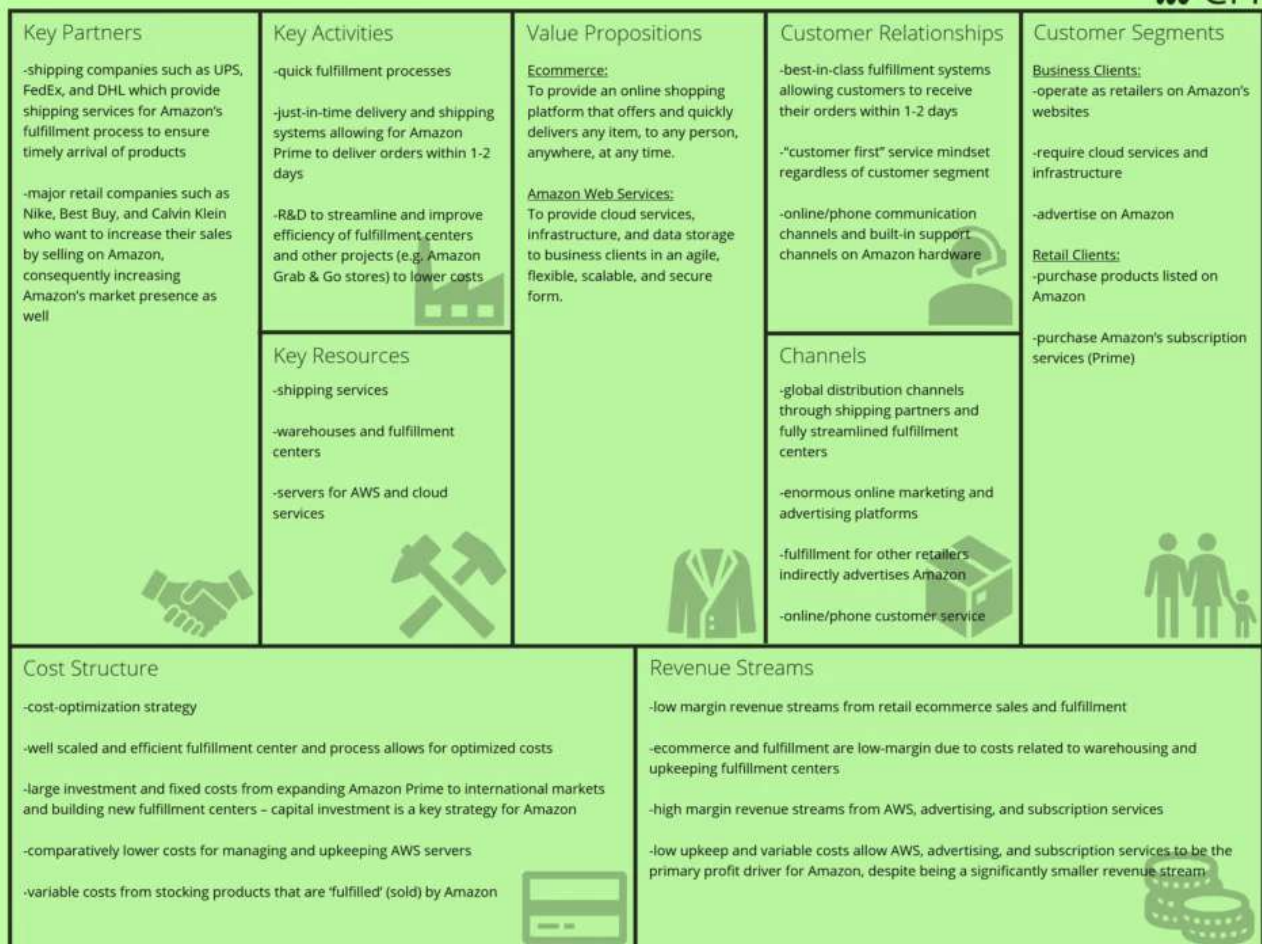The larger the production scale is, the more advantages.

Economies of Scope
Advantages due to the geographic area where the company operates.

Let's see the application in practice!

The next image show the Business Model Canvas of a company we all know: Amazon

amazon

CFI

Key Partners

-shipping companies such as UPS, FedEx, and DHL which provide shipping services for Amazon's fulfillment process to ensure timely arrival of products

-major retail companies such as Nike, Best Buy, and Calvin Klein who want to increase their sales by selling on Amazon, consequently increasing Amazon's market presence as well

Key Activities

-quick fulfillment processes

-just-in-time delivery and shipping systems allowing for Amazon Prime to deliver orders within 1-2 days

-R&D to streamline and improve efficiency of fulfillment centers and other projects (e.g. Amazon Grab & Go stores) to lower costs

Key Resources

-shipping services

-warehouses and fulfillment centers

-servers for AWS and cloud services

Value Propositions

Ecommerce:
To provide an online shopping platform that offers and quickly delivers any item, to any person, anywhere, at any time.

Amazon Web Services:
To provide cloud services, infrastructure, and data storage to business clients in an agile, flexible, scalable, and secure form.

Customer Relationships

-best-in-class fulfillment systems allowing customers to receive their orders within 1-2 days

-"customer first" service mindset regardless of customer segment

-online/phone communication channels and built-in support channels on Amazon hardware

Channels

-global distribution channels through shipping partners and fully streamlined fulfillment centers

-enormous online marketing and advertising platforms

-fulfillment for other retailers indirectly advertises Amazon

-online/phone customer service

Customer Segments

Business Clients:
-operate as retailers on Amazon's websites

-require cloud services and infrastructure

-advertise on Amazon

Retail Clients:
-purchase products listed on Amazon

-purchase Amazon's subscription services (Prime)

Cost Structure

-cost-optimization strategy

-well scaled and efficient fulfillment center and process allows for optimized costs

-large investment and fixed costs from expanding Amazon Prime to international markets and building new fulfillment centers – capital investment is a key strategy for Amazon

-comparatively lower costs for managing and upkeeping AWS servers

-variable costs from stocking products that are 'fulfilled' (sold) by Amazon

Revenue Streams

-low margin revenue streams from retail ecommerce sales and fulfillment

-ecommerce and fulfillment are low-margin due to costs related to warehousing and upkeeping fulfillment centers

-high margin revenue streams from AWS, advertising, and subscription services

-low upkeep and variable costs allow AWS, advertising, and subscription services to be the primary profit driver for Amazon, despite being a significantly smaller revenue stream

Sources, learn more!

https://corporatefinanceinstitute.com/resources/management/business-model-canvas-examples/

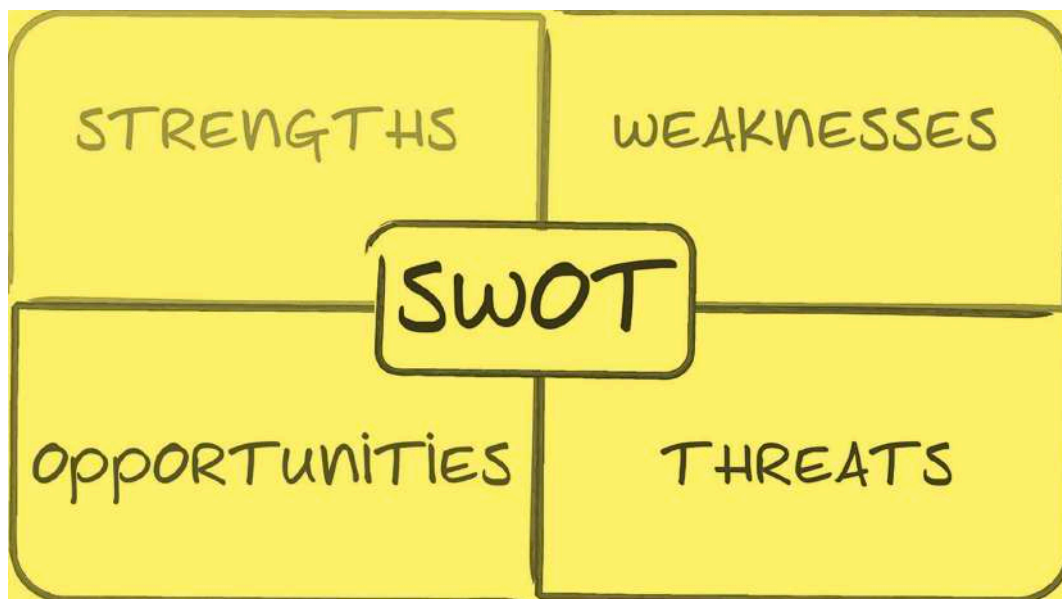**More examples** on how to apply Business Model Canvas tool:
https://avada.io/resources/business-model-canvas-examples.html

Watch the video "Business Model Canvas Explained", developed by Strategyzer:
https://www.youtube.com/watch?v=QoAOzMTLP5s

4. SWOT Matrix

One of the most know business analysis tools is **SWOT (strengths, weaknesses, opportunities, and threats) analysis,** a framework used to evaluate a company's competitive position and to develop strategic planning.

SWOT analyses can be applied to an **entire company or organization,** or **individual projects** within a single department. Most commonly, SWOT analyses are used at the organizational level to determine how closely a business is aligned with its growth trajectories and success benchmarks, but they can also be used to ascertain how well a particular project – such as an online advertising campaign – is performing according to initial projections.

Whatever you choose to call them, SWOT analyses are often presented as a grid-like matrix with four distinct quadrants – one representing each individual element. This presentation offers several benefits, such as identifying which elements are internal versus external, and displaying a wide range of data in an easy-to-read, predominantly visual format.

The SWOT matrix is further classified into two categories of internal or external factors. The strengths and weaknesses together form **internal factors** whereas the opportunities and threats form the **external factors**. Internal factors are the ones that can be controlled, initiated, and influenced by the internal parameters of the entity being analysed (human resources, tangible and intangible (brand name) assets, and operational efficiencies….). External factors on the contrary are the ones that are out of the influential capacity of the organization or the entity being studied; these factors are unprecedented and often arise when least expected (monetary policies, market changes, and access to supplier…).

Components of SWOT Analysis

Every SWOT analysis will include the following four categories. Though the elements and discoveries within these categories will vary from company to company, a SWOT analysis is not complete without each of these elements:

STRENGHTS:
What an organization excels at and what separates it from the competition: a strong brand, loyal customer base, a strong balance sheet, unique technology, and so on. For example, a hedge fund may have developed a proprietary trading strategy that returns market-beating results. It must then decide how to use those results to attract new investors.

WEAKNESSES:
Weaknesses stop an organization from performing at its optimum level. They are areas where the business needs to improve to remain competitive: a weak brand, higher-than-average turnover, high levels of debt, an inadequate supply chain, or lack of capital.

INTERNAL FACTORS

OPPORTUNITIES:
Opportunities refer to favorable external factors that could give an organization a competitive advantage. For example, if a country cuts tariffs, a car manufacturer can export its cars into a new market, increasing sales and market share.

THREATS:
Threats refer to factors that have the potential to harm an organization. For example, a drought is a threat to a wheat-producing company, as it may destroy or reduce the crop yield. Other common threats include things like rising costs for materials, increasing competition, or tight labour supply.

EXTERNAL FACTORS

How to Do a SWOT Analysis

A SWOT analysis can be broken into several steps with actionable items before and after analysing the four components. In general, a SWOT analysis will involve the following steps.

1. Determine your objective

A SWOT analysis can be broad, though more value will likely be generated if the analysis is pointed directly at an objective. For example, the objective of a SWOT analysis may be focused only on whether to perform a new product rollout. With an objective in mind, a company will have guidance on what they hope to achieve at the end of the process. In this example, the SWOT analysis should help determine whether the product should be introduced.

2. Gather Resources

Every SWOT analysis will vary, and a company may need different data sets to support pulling together different SWOT analysis tables. A company should begin by understanding what information it has access to, what data limitations it faces, and how reliable its external data sources are.

In addition to data, a company should understand the right combination of personnel to have involved in the analysis. Some staff may be more connected with external forces, while various staff within the manufacturing or sales departments may have a better grasp of what is going on internally. Having a broad set of perspectives is also more likely to yield diverse, value-adding contributions.

3. Compile ideas

For each of the four components of the SWOT analysis, the group of people assigned to performing the analysis should begin listing ideas within each category. Examples of questions to ask or consider for each group are in the table below.

Strengths	Weaknesses
1. What is our competitive advantage?	1. Where can we improve?
2. What resources do we have?	2. What products are underperforming?
3. What products are performing well?	3. Where are we lacking resources?

Opportunities	Threats
1. What new technology can we use?	1. What regulations are changing?
2. Can we expand our operations?	2. What are competitors doing?
3. What new segments can we test?	3. How are consumer trends changing?

4. Refine findings

With the list of ideas within each category, it is now time to clean-up the ideas. By refining the thoughts that everyone had, a company can focus on only the best ideas or largest risks to the company. This stage may require substantial debate among analysis participants, including bringing in upper management to help rank priorities.

5. Develop the strategy

Armed with the ranked list of strengths, weaknesses, opportunities, and threats, it is time to convert the SWOT analysis into a strategic plan. Members of the analysis team take the bulleted list of items within each category and create a synthesized plan that provides guidance on the original objective.

The information gained with the development of the SWOT Analysis can lead to the implementation of different strategies to improve the company. The figure below resumes the 4 main strategies linked to each quadrant.

4 types of strategies based on SWOT

1.

Strengths-Opportunities (SO)

Use a firm's internal strengths to take advantage of external opportunities

2.

Weaknesses-Opportunities (WO)

Improving internal weaknesses by taking advantage of external opportunities

3.

Strengths-Threats (ST)

Use a firm's strengths to avoid or reduce the impact of external threats

4.

Weaknesses-Threats (WT)

Defensive tactics aimed at reducing internal weaknesses & avoiding environmental threats

Sources, learn more!

https://www.investopedia.com/terms/s/swot.asp

Read the article: Pickton, D. W., & Wright, S. (1998). What's swot in strategic analysis? Strategic change, 7(2), 101-109.

SC

David W. Pickton and
Sheila Wright
School of Business, De Montfort University, Leicester

What's swot in strategic analysis?

- *Environmental analysis is a critical part of the strategic management planning process. The SWOT (Strengths, Weaknesses, Opportunities, Threats) framework is proposed by many as an analytical tool which should be used to categorize significant environmental factors both internal and external to the organization.*
- *SWOT analysis has been praised for its simplicity and practicality. As a framework it has been widely adopted but, generally, its use has been accepted uncritically. It is timely to reappraise its value as a strategic management tool.*
- *If used simplistically, the SWOT framework is a 'naive' tool which may lead to strategic errors. More detailed analysis using complementary frameworks can overcome SWOT's inherent shortfalls.*
- *SWOT should not be viewed as a static analytical tool with emphasis solely on its output. It should be used as a dynamic part of the management and business development process.*
- *Despite impressions often created by many authors on the subject who portray strategic planning as systematic, sequential and rational, the realities of planning reveal that strategy formulation is more likely to be somewhat more incremental, non-rational and irregular; more 'organic' than 'mechanic'. Use of the SWOT framework tends to be most*

Complementary material 3

Have a look to the book that develop the methodology Business Model Canvas: Osterwalder, A., & Pigneur, Y. (2010). Business model generation: a handbook for visionaries, game changers, and challengers. John Wiley & Sons.

https://www.strategyzer.com/books/business-model-generation

The 9 Building Blocks

Customer Segments	Value Propositions	Channels	Customer Relationships	Revenue Streams	Key Resources	Key Activities	Key Partnerships	Cost Structure
An organization serves one or several Customer Segments.	It seeks to solve customer problems and satisfy customer needs with value propositions.	Value propositions are delivered to customers through communication, distribution, and sales Channels.	Customer relationships are established and maintained with each Customer Segment.	Revenue streams result from value propositions successfully offered to customers.	Key resources are the assets required to offer and deliver the previously described elements...	...by performing a number of Key Activities.	Some activities are outsourced and some resources are acquired outside the enterprise.	The business model elements result in the cost structure.

Enjoy this preview and buy the Book at...

— ALEX, Yves, ALAN, Tim, and Patrick

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This book was Self Published
ISBN 978-2-8399-0580-0

WWW.
**Business
Model
Generation.com**
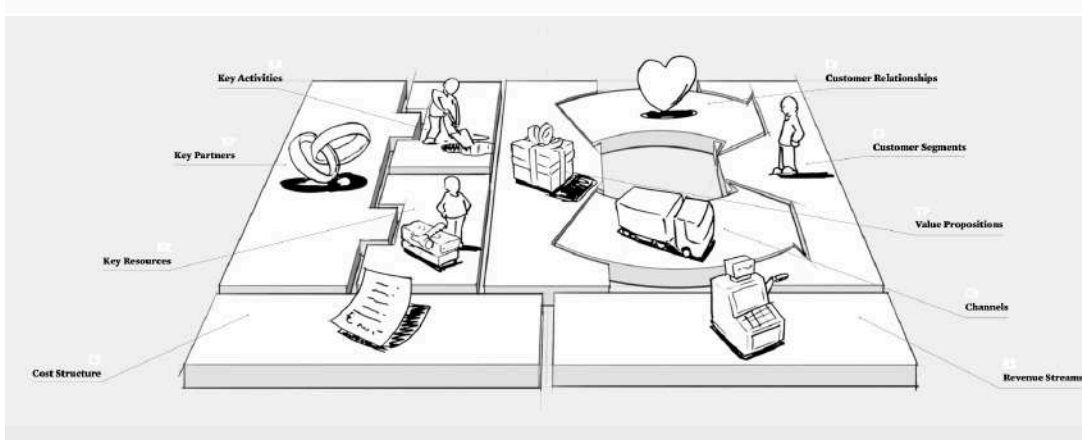
A

Sustainable view of the Business Model Canvas do also exist! Variations of the original model based on a sustainable approach have been created. You can find different if you google <Sustainable Business Model Canvas> depending on different needs. For example, in this link you can find more information and download a template: https://www.sustainablebusinesscanvas.org

Activity

Let's do it in practice!

3

Based on the disruptive company that you selected to complete the activity of Module 2, now you have to develop three of the tools we have gone through in this third module. So, to complete this module you must complete 3 exercises:

1. Develop an Empathy map of the selected disruptive business

2. Develop the Value Proposition Canvas of the selected disruptive business

3. Develop a SWOT Analysis of the selected disruptive business, indicating:

a. The advantages related to the strengths.

b. The areas of improvement connected to the weaknesses.

c. The situations to apply the advantages related to the opportunities.

d. The risks regarding the threats.

Learning outcomes/objectives of the activity:

- Learn to emphasize with the customer to detect real market needs.

- Reduce uncertainty around the necessity.

- Identify and define the value associated to a certain need.

- Analyze the internal and external context of the business to identify strengths, weaknesses, opportunities, and threats.

- Reduce the uncertainty about the context and ecosystem surrounding the business.

- Develop knowledge on how the context affects a certain business.

All three activities must be completed to pass this module.

Upload/Send your activity once completed.

Access to the templates of the activities →

Empathy Map Canvas

GOAL

1 **WHO are we empathizing with?**

Who is the person we want to understand?
What is the situation they are in?
What is their role in the situation?

2 **What do they need to DO?**

What do they need to do differently?
What job(s) do they want or need to get done?
What decision(s) do they need to make?
How will we know they were successful?

7 **What do they THINK and FEEL?**

PAINS

What are their fears,
frustrations, and anxieties?

GAINS

What are their wants,
needs, hopes and dreams?

3 **What do they SEE?**

What do they see in the marketplace?
What do they see in their immediate environment?
What do they see others saying and doing?
What are they watching and reading?

6 **What do they HEAR?**

What are they hearing others say?
What are they hearing from friends?
What are they hearing from colleagues?
What are they hearing second-hand?

What other thoughts and feelings might motivate their behavior?

4 **What do they SAY?**

What have we heard them say?
What can we imagine them saying?

5 **What do they DO?**

What do they do today?
What behavior have we observed?
What can we imagine them doing?

Value Proposition Canvas

Gain creators

Products e Services

Pains relievers

Gains

Jobs-to-be-done

Pains

Your advantages

Areas to improve

Strengths

Weaknesses

Opportunities

Threats

Situations to apply your advantages

Where you are at risk
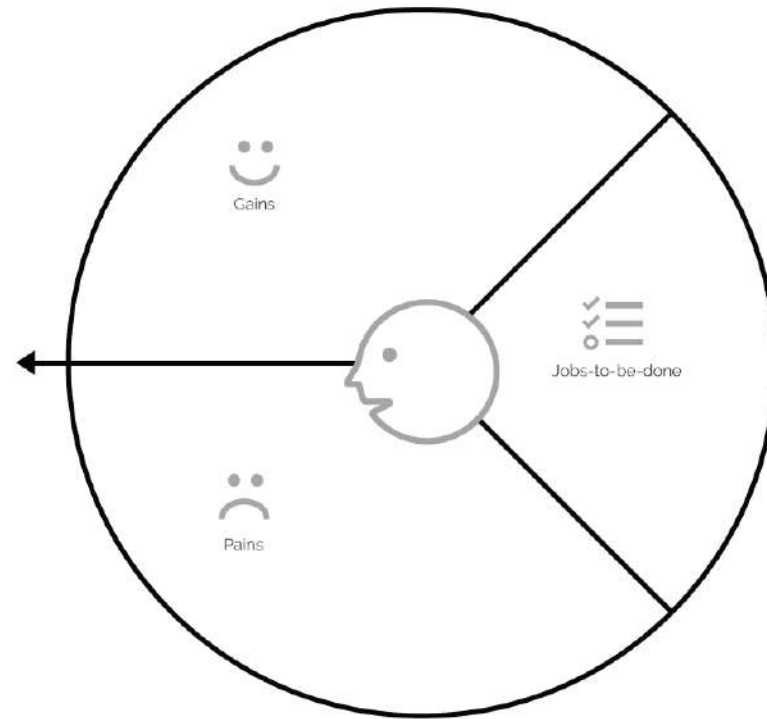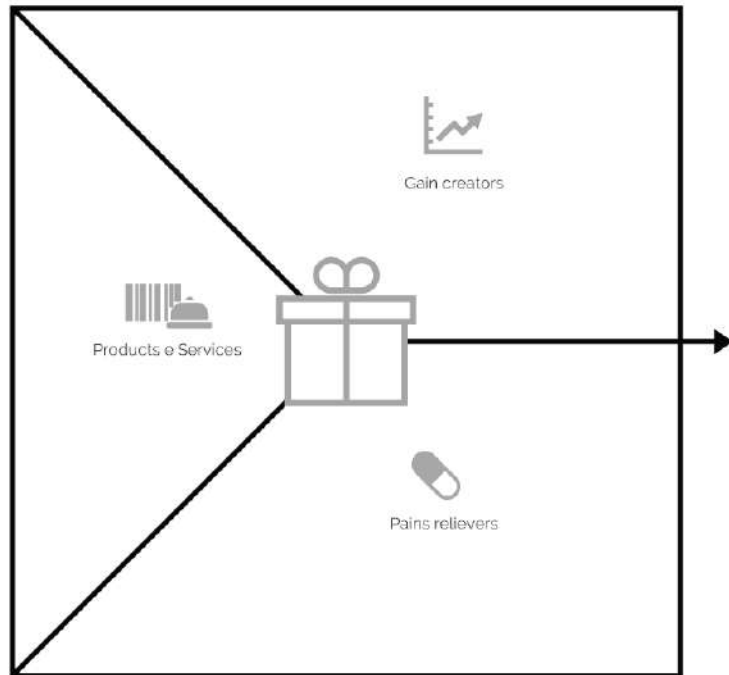
BLOCK: The current environment and its relationship with sustainability. The 2030 SDGs

This last block presents an introduction to the 2030 SDGs as a framework for analyzing the current environment and its characteristics related to sustainability.

The objective of this block is for you to understand the usefulness of the SDGs as inspirational elements for the definition and continuous improvement of business models. In this sense, the SDGs are a framework that can both help to identify areas for improvement and guide the introduction of these advances.

A quick review of the Sustainable Development Goals!

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. The 17 SDGs are integrated—they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability.

Countries have committed to prioritize progress for those who're furthest behind. The SDGs are designed to end poverty, hunger, AIDS, and discrimination against women and girls.

The creativity, knowhow, technology and financial resources from all of society is necessary to achieve the SDGs in every context.

More information can be found on the United Nations Development Programme website: https://www.undp.org/sustainable-development-goals

Although you are probably familiar with them, let's start with a quick overview of the SDGs.

End poverty in all its forms, everywhere (Economic).

End hunger, achieve food security and improved nutrition and promote sustainable agriculture (Economic).

Ensure healthy lives and promote well-being for all at all ages (Economic).

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (Social).

Achieve gender equality and empower all women and girls (Social).

Ensure available and sustainable management of water and sanitation for all (Economic).

7 AFFORDABLE AND CLEAN ENERGY

Ensure access to affordable, reliable, sustainable and modern energy for all (Economic).

8 DECENT WORK AND ECONOMIC GROWTH

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (Economic).

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation (Economic).

10 REDUCED INEQUALITIES

Reduce inequality within and among countries (Social).

11 SUSTAINABLE CITIES AND COMMUNITIES

Make cities and human settlements inclusive, safe, resilient and sustainable (Environment).

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Ensure sustainable consumption and production patterns (Environment).

13 CLIMATE ACTION

Take urgent action to combat climate change and its impacts (Environment).

14 LIFE BELOW WATER

Conserve and sustainably use the oceans, seas and marine resources for sustainable development (Environment).

15 LIFE ON LAND

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss (Environment).

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels (Social).

17 PARTNERSHIPS FOR THE GOALS

A successful sustainable development agenda requires partnerships between governments, the private sector and civil society. These inclusive partnerships built upon principles and values, a shared vision, and shared goals that place people and the planet at the centre, are needed at the global, regional, national and local level (Social).

The 17 SGDs can be classified in three groups regarding to their impact on the Economy, the Society or the Biosphere (environment). The following model is developed by the Stockholm Resilience Centre, and it is called: **The SDGs wedding cake**.
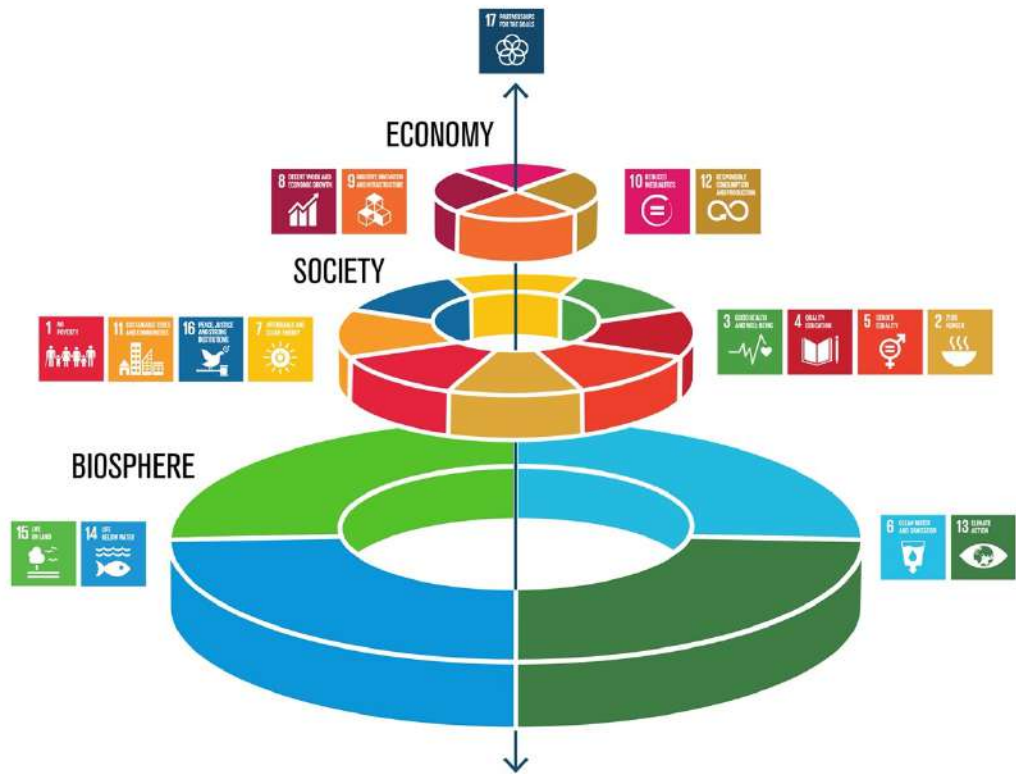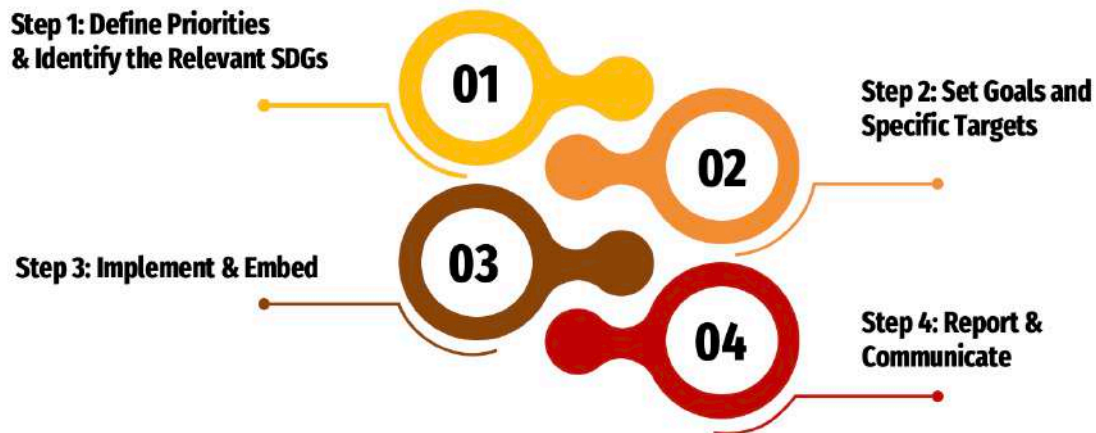
Related to business development SGDs provide an opportunity for you to:

1. Identify new opportunities to become more resilient as an organization and make sure you are addressing future needs.

2. Motivate employees through a shared purpose and mission.

3. Attract funding opportunities by showcasing how you are minimizing negative impact and maximizing positive impact across material issues.

4. Improve the credibility and effectiveness of your sustainability strategy and efforts through alignment with established and well-researched global needs.

5. Strengthen stakeholder dialogue and relations and anticipate regulatory changes to minimize future risks.

6. Consistently and effectively communicate and report on sustainability efforts to drive stronger partnerships.

The steps to integrate the SDGs into your corporate strategy

Step 1: Define Priorities & Identify the Relevant SDGs

01

02

Step 2: Set Goals and Specific Targets

Step 3: Implement & Embed

03

04

Step 4: Report & Communicate

01 Define Priorities & Identify the Relevant SDGs

Defining your company's priorities and focusing your efforts is key to benefit from the opportunities presented by the SDGs. To do so, one should consider how to minimize risks on civil society and the environment and identify beneficial SDG-related products, services, and investments.

To define priorities and identify relevant SDGs, it is important to:

- Map your value chain (downstream and upstream).
- Conduct a materiality assessment that identifies key impact areas as well as the issues that are most important to your organization and your stakeholders.
- Use a benchmarking tool or audit your value chain and operations.
- Consult important stakeholders and engage your senior team.
- Breakdown your strategic business priorities and define how they affect or are affected by the global goals.
- Avoid 'SDG cherry-picking' and 'SDG washing'. This means focusing on real priorities rather than what is easiest and reporting as much on negative as positive impact.

All of these steps will enable you to ensure the SDGs you identify are aligned with your overall corporate strategy and existing operations.

02 Set Goals and Specific Targets

Once you have defined your priorities, focused your efforts, and identified the applicable SDGs to guide your goals, it is time to **set specific targets**. These targets should cover priorities across the key sustainability pillars, including environment, ethics, labour, and human rights, and sustainable procurement, and act as strong proxies for impact. Each target should be set with a baseline in mind.

As the popular adage goes, you cannot improve what you cannot measure. Selecting specific indicators from recognized sources (such as GRI, CDP, or IRIS+) and defining what success means to your organization will permit you to remain focused and relevant while measuring your performance against the SDGs over time.

To set your targets and indicators, make sure they respect the following key principles:

- Specific and clear.
- Relevant and measurable.
- Ambitious yet realistic.
- Time-bound and transparent.

03 Implement & Embed

As a result of goal and target setting, you will have developed specific KPIs that proxy for your organization's impact on the SDGs. Now comes the stage where you need to make practical decisions about the best ways you can implement sustainable change within your organization. One common practice to avoid is the relabelling of existing efforts in SDG terms as that will often remain surface-level and will lose focus. Achieving the SDGs requires new and additional efforts.

04 Report & Communicate

The fourth phase of the circular process consists of reporting and communicating progress on SDG-related targets, whether positive or negative.

Sustainability reporting and disclosure should be seen and adopted as a strategic tool to drive decision-making, open dialogue with stakeholders, attract investors and continuously re-assess impacts to steer the organization in the right direction.

The goals provide a comprehensive framework that enables organizations to define and prioritize material issues and improve the quality of their reporting, sending a clear message to internal and external stakeholders alike. Following the four steps outlined in this article guides how to translate the SDG framework into strategic business opportunities and unlock significant value.

Sources, learn more!

https://blog.nexioprojects.com/4-steps-to-translate-the-sdgs-into-business-opportunities
https://www.degruyter.com/document/doi/10.5018/economics-ejournal.ja.2017-28/html

Complementary material

The reports published by the **European Environment Agency** can be used in order to get more knowledge about the current environment and its characteristics related to sustainability. There you can even find a ranking by country. Additionally, by checking that objectives the companies might be able to identify business opportunities that are not covered yet. Find the publications in this link: https://www.eea.europa.eu/en/analysis/publications

Dou you want to know more about how SDG's are connected to startups? We recommend you to read the article:

MARTÍNEZ-MARTÍNEZ, S. L., VENTURA, R. & PLATA, C. (2021). CSR and SDGs in Early-Stage Entrepreneurship: A Startup Perspective of Sustainability. En Pérez, A (Ed.), Future Advancements for CSR and the Sustainable Development Goals in a Post-COVID-19 World, pp. 216-241. España: IGI Global. doi: 10.4018/978-1-7998-8065-3.ch011.

Abstract

Entrepreneurship conditions the sustainable development of a society by the economic, social, and environmental impact of new ventures. Specifically, startups, due to their high level of innovation and scalability, have an important role in fostering and accelerating the implementation of sustainable practices. An empirical analysis is carried out through data collected in the framework of the GEM project to define the extent in which startups innovation impact SDGs. The results highlight that the most frequently addressed goals belong to the economic sphere (e.g., SDG 8 and SDG 9), while environmental and social aspects are scarcely considered. More than half of the SDGs are addressed by less than 10% of the startups. A change in policies to promote SDGs is needed to foster the implementation of CSR strategies from early entrepreneurial stages, increase startups awareness, and face the lack of attention that some SDGs are receiving from the currently emerging innovation.

Let's do it in practice!

4

Activity

Consider the same company you have worked with in the activities in blocks 2 and 3 and using the SDGs as inspirational elements, identify areas of improvement for the company.

In this sense, the SDGs can inspire the company's management to make strategic decisions and to introduce new elements in its business model.

Which SDGs can inspire business change and improvement? In which area? What new elements can be introduced into the business model or how can the business model change based on the SDGs identified as inspirational?

With which threats and opportunities identified in the SWOT analysis above, can be these SDGs be linked to?

Learning outcomes/objectives of the activity:

- Develop awareness of the importance and usefulness of the SDGs as inspirational elements for business change.

- Analyze the relationship between the SDGs and different aspects of the business model.

- Identify elements linked to sustainability that enhance business improvement.

- Understand the relationship between the external elements of SWOT analysis and the SDGs as dimensions of environmental analysis.

This activity must be completed to pass the block 4 and complete the module.

Upload/Send your activity once completed.

Access to the activity template→

Which SDGs can inspire business change and improvement? (identify at least 4 SDGs)

How can these SDGs lead to changes/improvements of the business model?

What threats and opportunities identified in the SWOT analysis above can these SDGs be linked to?

Hand in all the activities of the 4 Blocks to complete the module:

Competence area: Envisioning sustainable future