

JoinME / Joint Multidisciplinary training program on Entrepreneurship in the field of artificial intelligence for industry 5.0



CORE MATERIAL FOR THE JOINT TRAINING PROGRAM ON ENTREPRENEURSHIP

Deliverable doc

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Applicable Documents

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1	[PARTNER ORGANIZATION]	[TITLE OF THE REFERENCED DOCUMENT]

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Introduction

This is the main deliverable of the JoinME project. It is meant to be used firstly by teachers and trainers in entrepreneurship, engineering and AI/ICT fields; professionals in fields of Industry 4.0 and AI to operate the training but it will also be made accessible to students participating in the Module. The deliverable comprises detailed Units about entrepreneurship and business and startup management, namely Units from 2 to 12:

- Unit 2. Creativity and design thinking (developed by Name(s)?, ATERMON)
- Unit 3. Defining the concept/idea (developed by Name(s)?, ATLANTIS)
- Unit 4. International project management (developed by Name(s)?, ECAM-EPMI)
- Unit 5. Business Plan (developed by Name(s)?, ATLANTIS)
- Unit 6. Market analysis (developed by Name(s)?, NURE)
- Unit 7. Financial analysis (developed by Name(s)?, NURE)
- Unit 8. Legal issues (developed by Ineta Žičkutė-Daugelavičienė and Ulrika Varankaitė, KTU)
- Unit 9. Leadership and negotiation (developed by Name(s)?, HESO)
- Unit 10. Team Management (developed by Name(s)?, HESO)
- Unit 11. Marketing (developed by Elena Vitkauskaitė, KTU)
- Unit 12. International logistics (developed by Name(s)?, ECAM-EPMI)

Each Unit includes following content:

- Learning outcomes of the Unit
- Core content of the Unit, where main theoretical and practical insights on the topic are introduced.
- Exercises to students, such as:
 - Activities to practice the concepts introduced in the units
 - Self-assessment questions
 - Examination and discussion starter questions
- Further readings and web links to recommended sources or tools
- References used to develop the content of the Unit.

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Unit 2: Creativity and Design Thinking

Learning outcomes of the unit

- Understand the principles of design thinking and creativity in the context of entrepreneurship in AI and Industry 4.0/5.0 sectors.
- Apply design thinking tools and techniques to solve real-world problems in AI and Industry 4.0/5.0 sectors.
- Develop creative thinking skills and enhance innovation capacity.

Introduction

Innovation is considered a critical parameter for economic growth, leading free economy to evolve (“Joseph Schumpeter”, 2023). The process of creating an innovative product from scratch is based on several steps but **defining the concept/idea** is considered as the first one. According to Joseph Schumpeter, an Austrian political economist, (“Joseph Schumpeter”, 2023) innovation is defined by a set of different variables involving not only the part of invention, but also economic requirements for creating a new product and follow-up demand of the innovative product/service.

Creativity and Design Thinking are essential tools for entrepreneurship in the sectors of Artificial Intelligence and Industry 4.0/5.0 for several reasons:

1. **Innovation is essential:** In the rapidly evolving fields of AI and Industry 4.0/5.0, innovation is essential for success (Essentra Components, 2023). Creativity and Design Thinking provide a structured approach to generating innovative ideas and developing solutions that meet the needs of users.
2. **User-centred approach:** Creativity and Design Thinking are both focused on understanding the needs and desires of users. In the AI and Industry 4.0/5.0 sectors, where technology is often complex and difficult to understand for the average user, it is particularly important to take a user-centred approach to design and development (Nahavandi, 2019).
3. **Iterative process:** Both Creativity and Design Thinking are iterative processes, which allow for continuous feedback and improvement (Dam & Siang, 2022). In the AI and Industry 4.0/5.0 sectors, where technology is constantly evolving, it is important to be able to adapt and iterate quickly in order to stay ahead of the curve.
4. **Collaboration and teamwork:** Both Creativity and Design Thinking involve collaboration and teamwork, which are essential for entrepreneurship in the AI and Industry 4.0/5.0 sectors (Essentra Components, 2023). These sectors are often highly interdisciplinary, requiring expertise from a variety of fields in order to develop successful solutions.
5. **Value creation:** Both Creativity and Design Thinking are focused on creating value for users (Dam & Siang, 2022). In the AI and Industry 4.0/5.0 sectors, where technology is often expensive and complex, it is particularly important to be able to create value for users in order to drive adoption and success.

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Overall, Creativity and Design Thinking **help entrepreneurs to develop innovative solutions that meet the needs of users, as well as adapt quickly to a rapidly evolving technological landscape.** It is, therefore, necessary to dig deeper into the basic principles of these approaches, as well as into their application possibilities.

What is innovation?

Innovation is the process of exploiting a new idea in order to create a new product or service, or to improve already existing ones (Sandefur, 2023). The first step to promote innovation is coming up with an invention, meaning conceiving a new idea or concept. The two concepts are closely connected to each other because innovation is able to turn an invention to a product.

Becoming familiar with the term “innovation” early on is important because it is possible that some inventions might not make it to the market. Abstract ideas, although interesting, need additional structure to become useable from a significant amount of people. Moreover, the greater innovators sometimes are the ones that can communicate their ideas more effectively (Childs, 2023). Use of language is critical for defining a concept and give meaning to it (Cecil, 2019). An idea, in order to become recognizable, and subsequently to find practical use, needs to be turned into a product. This product will be able to promote innovation and economic benefits.

Creativity

Creativity is the ability to come up with new and innovative ideas, solutions, or products. It is a crucial skill for entrepreneurs in any field, especially in rapidly evolving fields such as Artificial Intelligence and Industry 4.0/5.0.

Key concepts related to creativity:

- **Divergent thinking:** the ability to **generate multiple ideas or solutions** to a problem.

“Divergent thinking represents a style of thinking that allows idea generation, in a context where the selection criteria are relatively vague and more than one solution is correct” (Zhang et al., 2020).



• **TIP:** Brainstorm and think of as many ideas as possible, even if some of them seem crazy or impractical. Divergent thinking can help you come up with truly innovative ideas!

- **Convergent thinking:** the ability to **evaluate and select** the best idea or solution from among the many generated through divergent thinking.

“Convergent thinking represents a style of thinking that allows finding single solutions to a well-defined problem, which requires more persistence and focus” (ibid.).

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TIP: Learn to be critical and analytical in evaluating your ideas and selecting the most promising ones!

- **Combining ideas:** Often, the most innovative ideas come from combining two or more existing ideas in a new and creative way. This kind of *associative process* enhances creativity and generates innovative results (Beaty et al., 2021).
- **Three lenses of Innovation:** When it comes to critical thinking and ideas evaluation the variables are truly endless, when it comes to the metrics used as evaluation criteria. They severely depend on the industry of your business and your strategic objectives (ALCOR FUND, 2021). “Design thinking (DT) is regarded as a system of three overlapping spaces—viability, desirability, and feasibility—where innovation increases when all three perspectives are addressed” (Chasanidou et al, 2015). A method of evaluating ideas was based on exactly this concept is the Three Lenses of Innovation, that was created by IDEO. This method encourages the observation of ideas under the Three lenses of Innovation:
 - **Feasibility** – Is it possible that this idea will come into fruition? Does our team have the suitable skills? Do we currently have the right technology to proceed with this idea, or the right resources?
 - **Desirability** - How much is this idea desired by a group of people? Does this idea contribute to the solution of a problem?
 - **Viability** – Is this idea viable? Is it based on a realistic, sustainable model for the business?

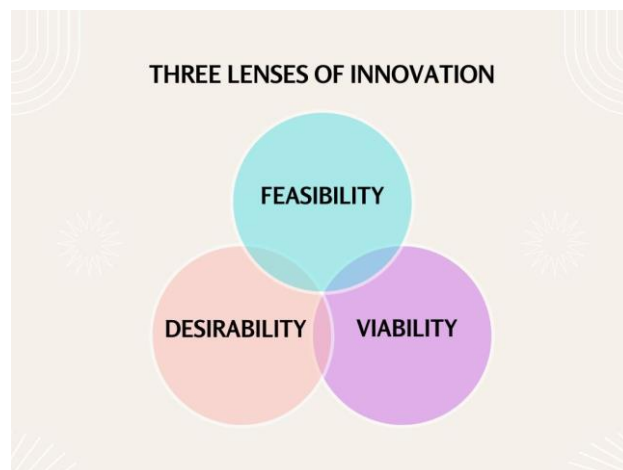


Image title: Three lenses of innovation
(Created with Canva)

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● **TIP:** Look for connections and relationships between seemingly unrelated ideas or concepts.

- **Iteration and refinement:** Creative ideas often require multiple rounds of iteration and refinement to reach their full potential (Nieminen, 2021). This process should not be perceived as a waste of time, as it is the exact opposite: a crucial path to success.



● **TIP:** Be persistent and open to feedback as you develop and refine your ideas.

Obstacles to Creativity

Creativity can be hindered by various obstacles, such as:

- **Fear of failure:** Fear of failure can prevent people from taking risks and trying new things. Research in the entrepreneurial field has shown that fear of failure is “a negative affective reaction based in cognitive appraisals of the potential for failure in the uncertain and ambiguous context of entrepreneurship” (Cacciotti et al., 2020). Accordingly, fear of failure plays a significant role in people’s actions and choices and can seriously hinder creative and innovative thinking acting as an inhibitor of progress.



● **TIP:** Embrace failure as a natural part of the creative process and learn from your mistakes.

- **Lack of resources:** A lack of resources, such as time, money, or materials, can limit creative possibilities. The fear generated from a lack of resources can block cognitive and affective processes needed to cultivate creative thinking (Cacciotti et al., 2020).



● **TIP:** Think creatively about how you can work within your constraints and to seek out opportunities to acquire the resources you need. Here are some ideas you can explore:

- Change your perspective. Focus on what your business currently has and start from there. Also make sure you communicate the needs of your task or project clearly to your team and make sure that you are using the talent and resources that already exists in your company in an effective way. Re-delegation, repurpose of talent, or re-using existing technology and know-how might prove to be lifesaving.

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- When lack of resources is an issue in a business, prioritizing current needs and postponing anything non-critical is an effective way to use your existing resources wisely and efficiently.
- Moreover, shift focus on optimizing effective internal business processes instead of constantly trying to expand your resources. “Startups that adopt efficient processes resulting in quick timelines for the development and refinement of deliverables are more likely to thrive despite the existence of clear resource limitations” (Elsirafy, 2020).
- Outsourcing some of your company’s tasks or activities, by collaborating with external partners, is a method used very often in businesses and startups.
- **Lack of inspiration:** People often say that creative ideas simply don't come to mind. This is a simplistic approach to complex processes that block the awareness of creative ideas and result in inertia. In other words, inspiration is “a motivational state that compels individuals to bring ideas into fruition” (Oleynick et al., 2014). Without inspiration, creativity is not activated and challenges like scepticism are not easy to overcome.



• **TIP:** Seek out new experiences, perspectives, and sources of inspiration to fuel your creativity.

- **Rigid thinking:** Rigid thinking can limit creative possibilities by making it difficult to see beyond established norms and conventions. In contrast with flexibility, rigidity causes repetitive emergence of the same options, thus making people resist change and innovation (von Thienen et al., 2017).



• **TIP:** Challenge your assumptions and look for alternative perspectives and approaches.

Techniques for Enhancing Creativity

There are various techniques that can help enhance creativity, such as:

- **Brainstorming:** Brainstorming is a technique for generating a large number of ideas in a short amount of time.
 → Use brainstorming as a tool for generating and exploring new ideas. There are many ways and methods for successful brainstorming. A brainstorming technique is the SCAMPER technique. It stands for Substitute, Combine, Adapt, Modify/Magnify, Purpose, Eliminate/Minimize and Rearrange/Reverse. This technique urges you to think:
 - What can be replaced/substituted?
 - What can be combined?
 - What can be adapted or added?
 - What can be modified/magnified?

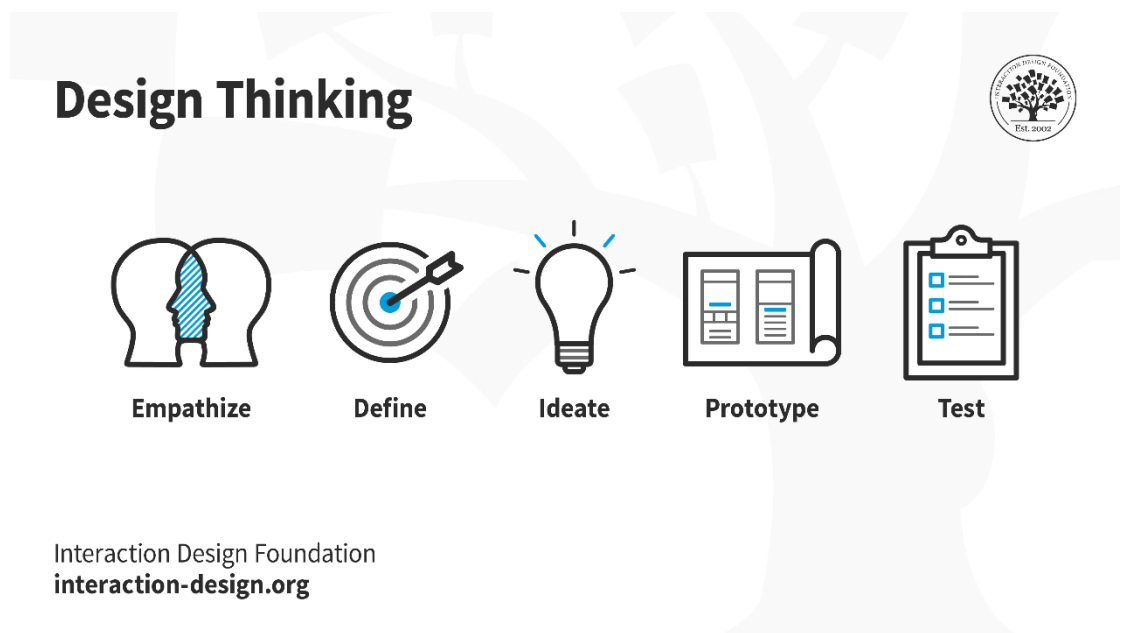
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- What can be reused/repurposed?
- What can be eliminated- simplified?
- What can be flipped, swapped, rearranged (in a process, idea or product)?
- **Mind mapping:** Mind mapping is a technique for visually organizing ideas and their relationships.
 - Use mind mapping as a tool for organizing and synthesizing your ideas.
- **Divergent thinking exercises:** Divergent thinking exercises, such as coming up with as many uses as possible for a paperclip, can help improve the ability to generate multiple ideas.
- **Collaboration:** Collaboration with others can bring new perspectives and ideas to the creative process.
 - Seek out opportunities to collaborate with others.

Design Thinking

Design Thinking is a problem-solving approach that emphasizes empathy for the user, iterative prototyping, and a focus on finding the best solution rather than the first solution. It is a valuable tool for entrepreneurs, as it can help them develop innovative products and solutions that truly meet the needs of their target customers, especially in the fields of Artificial Intelligence and Industry 4.0/5.0.



Interaction Design Foundation
interaction-design.org

Image title: Design Thinking
 Source: Interaction-design.org

Key concepts related to Design Thinking:

- **Empathy:** This is the ability to understand the needs and perspectives of the user.

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! ● **TIP:** Conduct user research, such as interviews or surveys, to gain a deep understanding of the needs and pain points of your target customers.

- **Prototyping and testing:** Design Thinking emphasizes rapid prototyping and testing of ideas to quickly identify what works and what doesn't.

! ● **TIP:** Create low-fidelity prototypes (such as sketches or paper models) and test them with users before investing too much time or resources into developing a fully functioning product.

- **Iterative design:** Like creativity, Design Thinking emphasizes iterative design and refinement.

! ● **TIP:** Be open to feedback and to use it to continuously improve their products or solutions.

- **Human-centred design:** Design Thinking is focused on creating solutions that truly meet the needs of the user.

! ● **TIP:** Keep the user at the centre of your design process and constantly ask yourselves whether your solutions are truly addressing the user's needs.

The Five Stages of Design Thinking

Design Thinking typically involves five stages:

1. **Empathize:** The first stage of Design Thinking is to empathize with the user. This involves understanding the user's needs, desires, and challenges, and gaining a deep understanding of their perspective (Dam & Siang, 2022).
2. **Define:** The second stage is to define the problem. Based on the information gathered during the empathize stage, the problem is defined in a way that is specific, actionable, and relevant to the user (ibid.).
3. **Ideate:** The third stage is to generate ideas. This involves brainstorming a wide range of potential solutions to the problem, without judging or dismissing any ideas. This process ensures a fresh mindset and enhances inspiration (ibid.).
4. **Prototype:** The fourth stage is to prototype. This involves creating a rough version of the solution, such as a physical mock-up or a digital prototype, that can be tested and refined. This process will ensure the consideration of alternative strategies and solution that will most likely transcend initial speculations and reach more beneficial results (ibid.).
5. **Test:** The final stage is to test the solution. This involves gathering feedback from users and using that feedback to refine and improve the solution. Such

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ongoing human-centred experimentation allows for new concepts and ideas to immerse, thus ensuring the development and launching of innovative products (ibid.).

Key Principles of Design Thinking

There are several key principles that underlie Design Thinking, including:

- **Human-centred design:** Design Thinking is focused on understanding and addressing the needs of users, rather than on creating solutions based on assumptions or preconceived notions (von Thienen et al., 2017). This results creative approaches that lead to innovation.
- **Iterative process:** Design Thinking is an iterative process, with each stage building on the previous one. This allows for continuous feedback and improvement (Dam & Siang, 2022).
- **Collaboration:** Design Thinking is often done in teams, with team members bringing different perspectives and skills to the process. This kind of collaboration is essential for the growth of innovation, especially when less experienced people are involved (Chasanidou et al., 2015).
- **Bias towards action:** Design Thinking emphasizes taking action and creating prototypes, rather than simply talking or planning (ibid.). In this context, taking meaningful action is the basic step for an idea moving forward.
- **Embracing ambiguity and uncertainty:** Design Thinking recognizes that the problem-solving process can be messy and uncertain and encourages embracing these aspects rather than trying to eliminate them.

Benefits

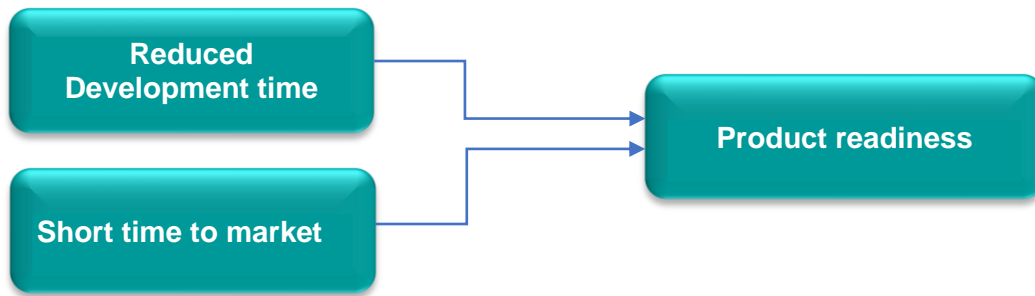
As explained above, design thinking approach for generating an idea can launch potential benefits for the future foreseen market exploitation. In order to fully understand the potential of this method, an important part is to become familiar with its benefits for the future business exploitation of the idea.

Since the product is already designed based on a concrete and usable idea and according to the future consumers'/clients' needs, the development time is cut short – most of the possible scenarios have already been considered in stages 1, 2, and 3.

Moreover, prototype has been designed at some level (maybe paper prototype) so the crucial stages of testing where the product/idea is validated, move more quickly as well.

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Please, read below a few **examples** of Creativity and Design Thinking implemented in entrepreneurship in the sectors of Artificial Intelligence and Industry 4.0/5.0.

NVIDIA

<https://www.nvidia.com/en-eu/geforce/>

NVIDIA is a leading producer of graphics processing units (GPUs) and AI accelerators. NVIDIA uses design thinking principles to develop new products and services. The company has a strong focus on user-centered design and uses design thinking to understand the needs of its customers and develop products that meet those needs (Yang et al., 2017). Through this approach, NVIDIA has been able to develop innovative products such as its *Jetson AI* platform, which has been used in a wide range of applications, from robotics to smart cities (Boesch, 2022).

ABB

<https://global.abb/group/en>

ABB is a multinational robotics and automation company. It has used Design Thinking to develop new solutions for its customers. The company has a strong focus on understanding the needs and desires of its customers and uses Design Thinking principles to develop solutions that are tailored to those needs (ABB, 2021). For example, ABB has developed a collaborative robot called *YuMi*, which was designed using Design Thinking principles to meet the needs of workers in small- and medium-sized enterprises (Association for Advancing Automation, 2022).

GE Digital

<https://www.ge.com/digital/>

GE Digital is a subsidiary of General Electric that focuses on industrial IoT solutions. Its creativity and design thinking approaches are put forth to develop new products and services. The company has a strong focus on user-centered design and uses design thinking to understand the needs of its customers and develop solutions that meet those needs. For example, GE Digital has developed an AI-powered system called *Predix* that helps industrial companies optimize their operations and reduce downtime (Somersault Innovation, 2021).

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Exercises

Activities

Activity 2.1: Introduction to Design Thinking

Purpose: To understand the principles of design thinking and its applications in entrepreneurship in AI and Industry 4.0/5.0 sectors. Instructions:

- Watch the **video** on "What is Design Thinking?" by The Strategy Group. (<https://www.youtube.com/watch?v=TtgegZfk5ZU>)
- Read the **article** "Design Thinking for Entrepreneurs" by Mark Logan. (<https://medium.com/idealect/design-thinking-for-entrepreneurs-392c8cbdcc24>)
- **Discuss** with your group the key principles of design thinking and how it can be applied to entrepreneurship in AI and Industry 4.0/5.0 sectors.

Activity 2.2: Empathy Mapping

Purpose: To apply design thinking tools and techniques to understand the user needs and develop innovative solutions. Instructions:

- Choose a **problem related to AI and Industry 4.0/5.0** sectors that you would like to solve.
- Create an **empathy map** for the problem, including the **user's perspective, their feelings, and the insights gained from observing or interviewing them.**
- **Identify the key user needs and pain points** based on the empathy map.
- **Discuss** with your group the potential solutions to address the user needs and pain points.

Empathy Map (<https://gamestorming.com/empathy-map-canvas-006/>)

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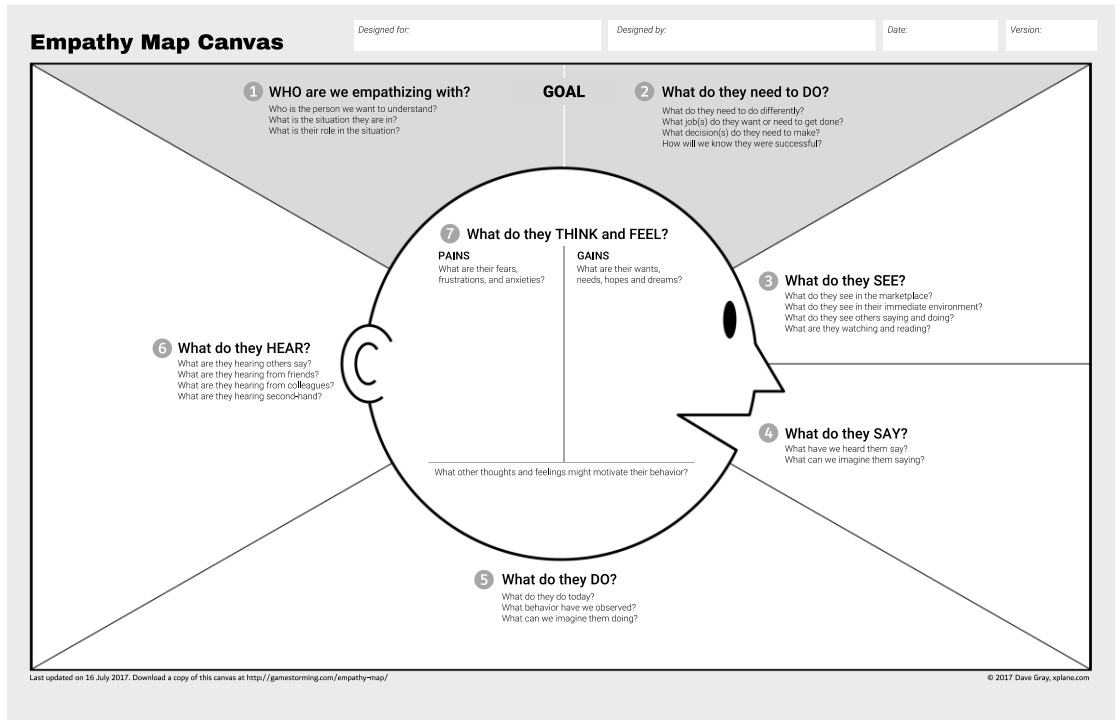


Image title: Empathy Map
Source: Gamestorming.com

Activity 2.3: Creative Ideation

Purpose: To develop creative thinking skills and enhance innovation capacity.
Instructions:

- Choose **one of the potential solutions identified in Activity 2.**
- Apply the **SCAMPER** technique (*Substitute, Combine, Adapt, Modify, Put to another use, Eliminate, Rearrange*) to generate new ideas and variations for the solution (Elmansy, 2015).
- Select the most promising idea and develop a **prototype or a mockup** to demonstrate how the idea can be implemented.
- Present your prototype or mockup to the class and **receive feedback.**

SCAMPER Technique (<https://netmind.net/en/scamper-technique-reduce-reuse-recycle-or-reinvent/>)

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Image title: Scamper
Source: Designorate.com

Discussion Starters

1. What are the **benefits and limitations** of design thinking in the context of entrepreneurship in AI and Industry 4.0/5.0 sectors?
2. How can creativity be fostered in the **workplace**, and what role does it play in the success of an entrepreneurial venture?
3. Should entrepreneurs prioritize **innovation or profit**? Divide into **two groups** and debate the **pros and cons** of each approach.

Self-assessment questions

Please answer the following multiple-choice questions:

1. Which of the following is NOT a characteristic of Design Thinking?
 - a. Empathy
 - b. Definition
 - c. Ideation
 - d. **Implementation**
2. What is the primary goal of Design Thinking?
 - a. To come up with a new product or service
 - b. **To solve complex problems**
 - c. To reduce costs and increase efficiency
 - d. To increase sales and revenue
3. What is the importance of creativity in entrepreneurship?
 - a. **To generate new and innovative ideas**
 - b. To cut costs and increase efficiency
 - c. To reduce risk and uncertainty
 - d. To increase customer loyalty and satisfaction

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4. What is the importance of design thinking in AI entrepreneurship?
 - a. To create more efficient algorithms
 - b. To improve the user experience of AI products**
 - c. To reduce the cost of developing AI systems
 - d. To increase the accuracy of AI predictions
5. Which of the following is NOT a stage of the Design Thinking process?
 - a. Empathize
 - b. Define
 - c. Prototype
 - d. Sell**
6. What is the importance of prototyping in Design Thinking?
 - a. To test and refine ideas**
 - b. To eliminate the need for further development
 - c. To reduce costs and increase profits
 - d. To create a final product that is ready for market
7. Which of the following is a characteristic of a successful AI entrepreneur?
 - a. A strong technical background in AI
 - b. An ability to think creatively and outside the box
 - c. A willingness to take risks and learn from failure
 - d. All of the above**
8. What is the primary benefit of using Design Thinking in entrepreneurship?
 - a. To reduce costs and increase efficiency
 - b. To increase sales and revenue
 - c. To generate new and innovative ideas**
 - d. To eliminate the need for creativity and innovation
9. During which phase of the Design Thinking process do designers gather information about the needs, emotions, and behaviors of the end-users?
 - a. Ideate
 - b. Prototype
 - c. Empathize**
 - d. Test
10. What is the difference between convergent and divergent thinking?
 - a. Convergent thinking is focused on generating many ideas while divergent thinking is focused on selecting the best idea.
 - b. Convergent thinking is focused on selecting the best idea while divergent thinking is focused on generating many ideas.**
 - c. Convergent thinking and divergent thinking are the same thing.
 - d. Convergent thinking is a type of creative thinking while divergent thinking is a type of critical thinking.

Examination questions

1. Explain the benefits of integrating creativity and design thinking in entrepreneurship in the sectors of Artificial Intelligence and Industry 4.0/5.0. Provide at least three examples to support your answer.
2. Critically evaluate the role of creativity in entrepreneurship. Can creativity alone guarantee success in business? Provide examples to support your argument.
3. Design a new AI product that solves a specific problem or meets a particular need in your chosen industry. Explain your design process and how you incorporated creativity and design thinking in developing your product.
4. According to you, what is Innovation?
5. Reflect on a time when you used design thinking to solve a problem or create a solution. What was the problem, and how did you approach it using design thinking? What was the outcome, and what did you learn from the experience?
6. Besides what is mentioned in this unit can you spot other benefits from design thinking?

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7. Imagine that you are an entrepreneur who wants to develop a new product using AI technology. Using your knowledge of design thinking, describe the steps you would take to develop and launch your product. What challenges do you anticipate, and how would you address them?

Further readings and recommendations

Further readings

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https://doi.org/10.1007/978-3-319-60967-6_2

Web links

Title	URL	Description
Empathy Map	https://gamestorming.com/empathy-map-canvas-006/	A comprehensive map for empathising
SCAMPER Technique	https://netmind.net/en/scamper-technique-reduce-reuse-recycle-or-reinvent/	Explanations on how to use the SCAMPER model
Video: What is Design Thinking?	https://www.youtube.com/watch?v=TtgegZfk5ZU	A video summarising the key steps in design thinking
Online article: "Design Thinking for Entrepreneurs"	https://medium.com/idealelect/design-thinking-for-entrepreneurs-392c8cbdcc24	An article explaining why design thinking is valuable for entrepreneurs
What is Ideation – and How to	https://www.interaction-design.org/literature/article/what-is-ideation-and-how-to	

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Prepare for Ideation Sessions	ideation-and-how-to-prepare-for-ideation-sessions	
What is innovation? 26 experts share their innovation definition.	https://www.ideatovalue.com/inno/nick-skillicorn/2016/03/innovation-15-experts-share-innovation-definition/	
Design thinking, explained	https://mitsloan.mit.edu/ideas-made-to-matter/design-thinking-explained	
What is Design Thinking?	A&JSmart. (2023, February). <i>What Is Design Thinking? An Overview.</i> [Video]. YouTube. https://www.youtube.com/watch?v=qHGN6hs2qZY	An Overview of Design Thinking – a quick inside to the method’s principals and its use as a problem-solving tool. The video is explaining of the 5 main steps of the iterative process and suggesting some tricks for further developing the initial generalized approach.
Creative thinking – how to get out of the box and generate ideas – TEDtalk	TEDx Talks. (2023, February). <i>Creative thinking - how to get out of the box and generate ideas: Giovanni Corazza at TEDxRoma.</i> [Video]. YouTube. https://www.youtube.com/watch?v=bEusrD8g-dM	Explanation of how to pursue creative thinking and long thinking, how to overcome already existing knowledge. Description of known reality, feelings and experience when searching for innovation.

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Unit 3: Defining the concept/idea

Learning outcomes of the unit

After interaction with this unit, students will be able to:

- Understand the terms invention, innovation and distinguish between them.
- Understand how to implement design thinking process in order to come up with the most efficient idea.
- Structure initial ideas according to market demands.
- Search for inspiring concepts

Introduction

Innovation is considered a critical parameter for economic growth, leading free economy to evolve (“Joseph Schumpeter”, 2023). The process of creating an innovative product from scratch is based on several steps but **defining the concept/idea** is considered as the first one. According to Joseph Schumpeter, an Austrian political economist, (“Joseph Schumpeter”, 2023) innovation is defined by a set of different variables involving not only the part of invention, but also economic requirements for creating a new product and follow-up demand of the innovative product/service.

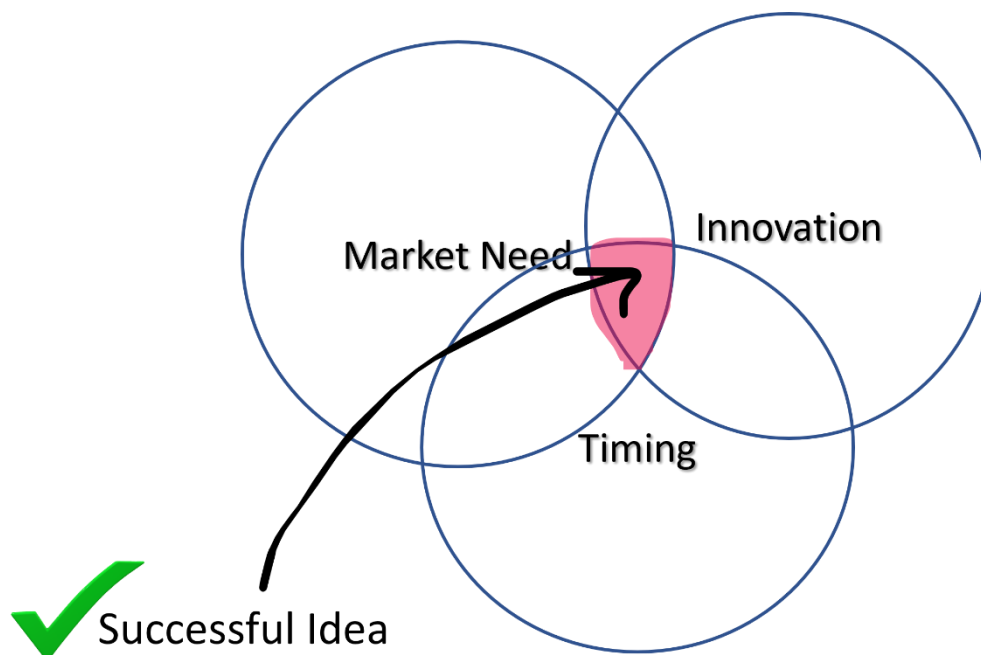


Figure 1 - How to define a successful idea

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In the following unit definitions of terms, examples and simple tips and steps that will facilitate with the creation of a new idea or product in the spirit of entrepreneurship.

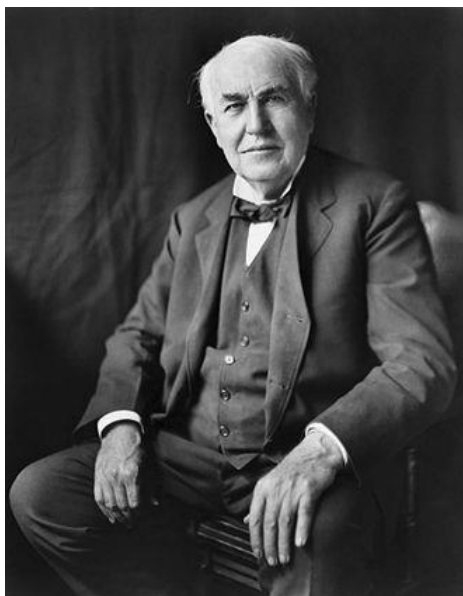
What is Innovation?

Innovation is the process of exploiting a new idea in order to create a new product or service, or to improve already existing ones (Sandefur, 2023). The first step to promote innovation is coming up with an invention, meaning conceiving a new idea or concept. The two concepts are closely connected to each other because innovation is able to turn an invention to a product.

Becoming familiar with the term “innovation” early on is important because it is possible that some inventions might not make it to the market. Abstract ideas, although interesting, need additional structure to become useable from a significant amount of people. Moreover, the greater innovators sometimes are the ones that can communicate their ideas more effectively (Childs, 2023). Use of language is critical for defining a concept and give meaning to it (Cecil, 2019). An idea, in order to become recognizable, and subsequently to find practical use, needs to be turned into a product. This product will be able to promote innovation and economic benefits.

Ideas that changed the world

Historically, the most successful ideas that influenced the modern world, were successful marking products as well.



Who is considered as the light bulb inventor?

- Most people would answer Tomas Edison

Figure 2 - Tomas Edison, inventor of the light bulb (photo retrieved from: Wikipedia https://en.wikipedia.org/wiki/Thomas_Edison)

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The answer is accurate, because Tomas Edison was indeed the inventor of the light bulb, we use **today**. He invented it in 1879, although the idea of producing lighting was there some decades before that (McFadden, 2022).

In the early 19th century, several physicists and inventors had expressed interest in creating lighting by using materials like carbon. In 1850, Joseph Wilson Swan has created a primary version of light bulb with carbon filaments, that wasn't suitable for commercial use due its very short lifetime. Edison, by alternating Swan's design and adding metal filaments was able to successfully market his product, and thus remain always remembered for his groundbreaking innovation.

Part of his success was that he answered the **consumer's needs** for using electricity for long lasting periods

Another great invention that marked history is the **creation of Automobile**. Karl Benz was given credit for the automobile creation, although this is debatable because automobiles were a work in progress and many people were involved since 1770s (Library of congress, 2019).



Figure 3 - First practical electric car, 1884 (picture retrieved from BBC UK, available at <https://www.bbc.co.uk/programmes/p055z7rj/p055z2xn>)

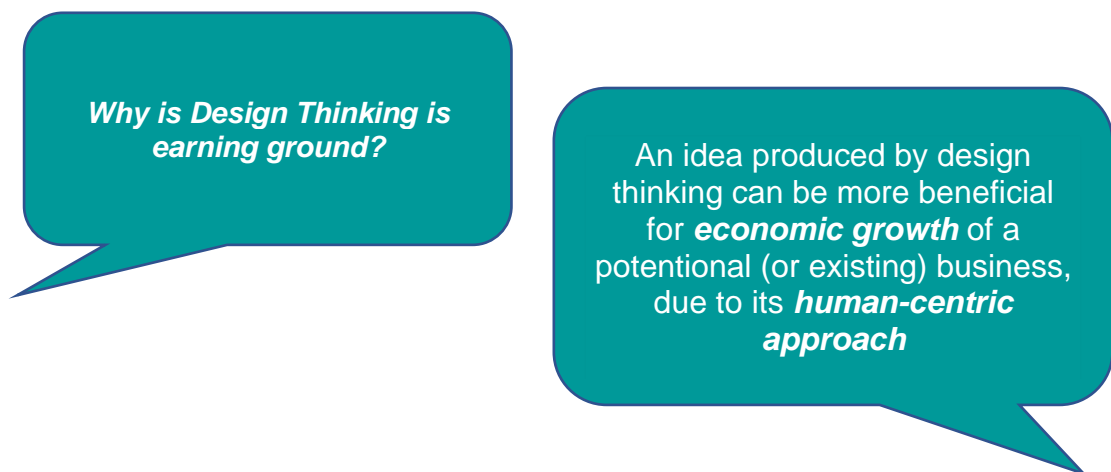
Automobiles changed the course of human transportation and still continue to differentiate an evolve. Fuel engines are replaced with more eco-friendly options like electrical cars, showcasing how new ideas are **moving around users' need and market demand**.

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Introduction of Design – Thinking Method for Generating Ideas

In this unit, is presented a method for producing innovative ideas that could subsequently be brought to the market and become opportunities for entrepreneurship (Interaction Design Foundation, 2023).

Design thinking is a creative method of tackling everyday problems and coming up with innovative solutions for them. It is popular **human-oriented method** due to the structure that can provide to inspiration, and its connection to real life problems (Kela, 2019).



Breakdown into stages

Design Thinking is **an iterative process** that can be separated into 5 stages:

1. Empathize
2. Define
3. Ideate
4. Prototype
5. Test

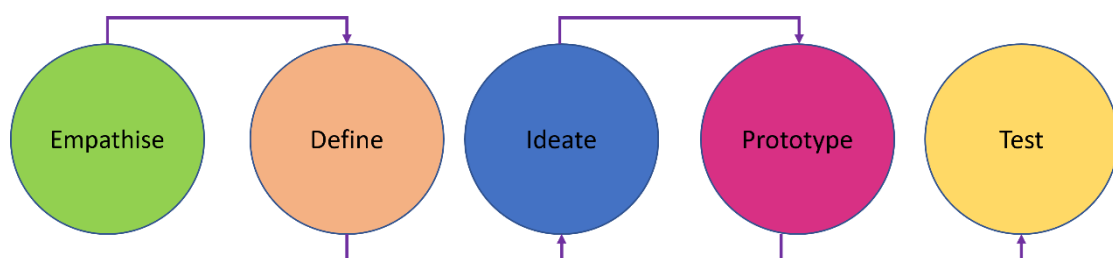


Figure 4 - Process of Design Thinking

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Description of the stages

What is empathy in design? How can we implement design thinking to generate ideas? Here an workplan for the 5 main stages is presented:

Stage	Action
Empathize	Research to identify the users' problems, practising empathy to understand the problem for a different point of view and <u>actually</u> try to provide with concrete solutions
Define	After the initial research, the problems should be processed and translated <u>into specific needs</u> , where the rest of the designing will attempt to answer
Ideate	This is the stage of <u>idea generation, brainstorming</u> and in general production of innovative solutions answering the previous defined problems/needs.
Prototype	Creating the initial experimental applications generated by the before mentioned ideas in <u>small scale</u> , but interesting enough and appealing to attract potential users
Test	The <u>final stage is testing</u> of the product (validation), spot potential problems or usage obstacles in order to return to Stage 1, as part of an <u>iterative process</u> .

Benefits

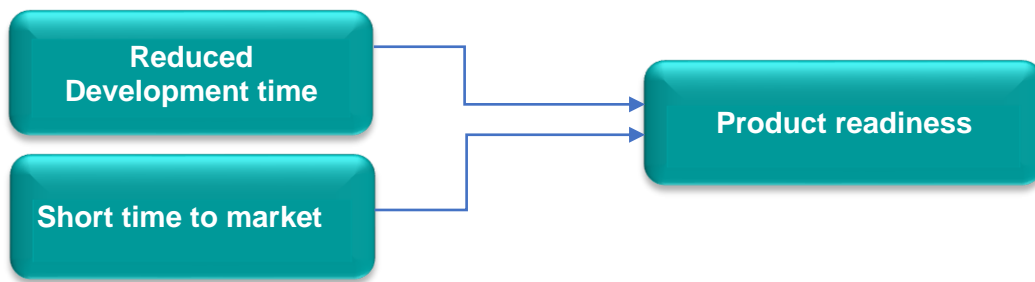
As explained above, design thinking approach for generating an idea can launch potential benefits for the future foreseen market exploitation. In order to fully understand the potential of this method, an important part is to become familiar with its benefits for the future business exploitation of the idea.

Since the product is already designed based on a concrete and usable idea and according to the future consumers'/clients' needs, the development time is cut short – most of the possible scenarios have already been considered in stages 1, 2, and 3.

Moreover, prototype has been designed at some level (maybe paper prototype) so the crucial stages of testing where the product/idea is validated, move more quickly as well.

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Exercises

Activities

The following activities have been designed so you are able to actively pursue the theoretical input of the unit.

Activity 3.1 – Generate creative ideas, practice thinking outside of the box

Pick one object in the room, or your bag and pass it on your classmate to the right. Try to discover a use for the item you hold in your hands completely different from its original use. (You can use a different approach if this exercise is conducted remotely e.g. send an object to the person below you in a private chat).

Activity 3.2 – Generation of a business idea

The following activity aims to help the students actually use the suggested design thinking method and adopt a user centric approach when generating ideas and brainstorming as a team.

Split in teams of 4. You are entitled to suggest a problem/ state/ condition that according to your opinion needs to be improved in the frame of the educational facility you are currently in.

Useful examples: cleaning of the classrooms, library access, issues with the facility etc.

1. Fill in the following table:

Direct Question	Description	Answers
Who would benefit more from a suggested solution?	List all of the people who could benefit from solving the spotted issue. Could be one or multiple persons.	1. ..

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Who is directly affected by the problem?	Spot amongst all, the most direct user of a proposed solution. Who would have to make alterations to his everyday life in order to adopt a new solution?	
What is the everyday routine of that person/persons?	Describe (according to your imagination/knowledge) the everyday routine of all the potential users	
Describe the existing or potentially available solution(s).	Is there a temporarily solution? Why doesn't this work?	
How does this person might feel?	Try to understand how this situation affects others and list a couple of possible emotions and outcomes	

2. Then, try to provide answers to the following questions:

Question	Answer
What is the most significant issue that they are facing?	
What would a successful outcome would be?	
What would be the overall result if an action took place?	

3. Each person in the team has to provide 3 ideas on the selected issue:

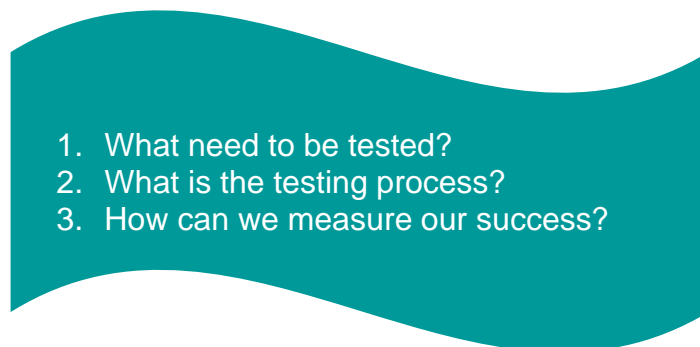


Take time to review all the ideas, discuss and select the optimal one. The solution doesn't have to be technological product.

“The application of ideas that are novel and useful. Creativity, the ability to generate novel and useful ideas, is the seed of innovation but unless it's applied and scaled it's still just an idea”

David Burkus

4. How would you create a sample/prototype of your proposed solution? Try to map your ideas into a schema.
5. How would you test the solution?



6. Can identify the 5 steps of design thinking in this process?

Discussion starters:

If you were able to take interviews from the people facing the unpleasant situation, how do you think this could have affected your outcome?

What step would be easier?

Can you spot any additional connections between your proposed solution and other sectors? How would they be affected?

Activity 3.3 – Follow-up live activity

Each team can present their idea to the other teams. Write down feedback, repeat the process, alternate the results accordingly if needed.

Self-assessment questions

Answer the following questions:

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1. Generating a great idea is enough in order to become an entrepreneur. True or False
2. Generating as many ideas as possible is necessary for brainstorming. True or False
3. Invention is the same as Innovation. True or False
4. Design thinking has 3 main stages. True or False
5. In what stage do you “step into the user’s shoes”?
 - a. Ideate b. Empathize c. Test d. Prototype
6. In what stage do you specify the user’s needs into actions?
 - a. Define b. Empathize c. Test d. Prototype
7. You can start marketing moves while the product still in prototype phase. True or False
8. What is the main benefit of design thinking?
 - a. Great ideas b. Cooperation with others c. Develop empathy d. Marketing Advantage
9. Design method is:
 - a. Used only in design b. only based in brainstorming c. human-oriented d. one-time process.
10. Generating ideas takes place in:
 - a. Empathize b. Test c. Ideate d. Prototype

Answers: (1. F, 2.T, 3.F, 4.F, 5.b, 6.a, 7.T, 8.d, 9.c, 10.c)

Examination questions

1. According to you, what is Innovation?
2. What differentiates a great inventor from a great entrepreneur?
3. Besides what is mentioned in this unit can you spot other benefits from design thinking?
4. Why is harder to generate commercial ideas?
5. List 3 ways interviews can facilitate with identifying product’s features.
6. Why do you think is important to identify a way to measure the outcomes of a great idea?

Further readings and recommendations

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If you are interested in more information regarding this topic you can search for the following sources.

Further readings

1. What is Ideation – and How to Prepare for Ideation Sessions
<https://www.interaction-design.org/literature/article/what-is-ideation-and-how-to-prepare-for-ideation-sessions>
2. Personas – A Simple Introduction
<https://www.interaction-design.org/literature/article/personas-why-and-how-you-should-use-them>
3. Design thinking, explained
<https://mitsloan.mit.edu/ideas-made-to-matter/design-thinking-explained>
4. What is innovation? 26 experts share their innovation definition.
<https://www.ideatovalue.com/inno/nickskillicorn/2016/03/innovation-15-experts-share-innovation-definition/>
5. 8 Habits of curious people.
<https://www.fastcompany.com/3045148/8-habits-of-curious-people>
6. The Future of Prototyping Is Now Live
<https://hbr.org/2014/03/the-future-of-prototyping-is-now-live>

Web links

YouTube videos

What is Design Thinking?

An Overview of Design Thinking – a quick inside to the method’s principals and its use as a problem-solving tool. The video is explaining of the 5 main steps of the iterative process and suggesting some tricks for further developing the initial generalized approach.

A&JSmart. (2023, February). What Is Design Thinking? An Overview. [Video]. YouTube. <https://www.youtube.com/watch?v=gHGN6hs2gZY>

Creative thinking – how to get out of the box and generate ideas – TEDtalk

Explanation of how to pursue creative thinking and long thinking, how to overcome already existing knowledge. Description of known reality, feelings and experience when searching for innovation.

TEDx Talks. (2023, February). Creative thinking - how to get out of the box and generate ideas: Giovanni Corazza at TEDxRoma. [Video]. YouTube. <https://www.youtube.com/watch?v=bEusrD8g-dM>

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8. Kela, C. (2019, June 12). Design Thinking- Way Of Creating New Concepts. Retrieved from *CODERSERA*: <https://codersera.com/blog/design-thinking-way-of-creating-new-concepts/>

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Unit 4: International project management

Learning outcomes of the unit

1. Apply project management concepts and methodologies in a global context, , communication strategies, and risk management.
2. Evaluate and select appropriate project management tools and techniques to effectively manage international projects.
3. Analyze case studies of international projects and apply knowledge to make informed decisions related to project planning, implementation, monitoring, and control.

Introduction

Project management is the process of planning, executing, and monitoring a project so that it's completed successfully.

Basically, instead of flying by the seat of your pants, you're taking an organized approach to ensure your project meets its goals and requirements, and is delivered on time and under budget.

Project management is generally overseen by a dedicated project manager who has the skills, experience, and know-how to keep things on track.

However, that's not always an option—especially for smaller teams or smaller projects. In that case, a different project team member needs to step up to become the point person.

It's helpful to have a single person responsible for moving the project forward and keeping tabs on progress, as that avoids crossed wires and confusion.

Understanding Project Management Life Cycle

We all are aware that a Project has a clear beginning and a precise end. This makes it all the more essential to have a well-defined life cycle. The life cycle is useful in the creation of clear and time-bound entry and exit points through the project management phases. It is a crucial part of the project development cycle.

The time-boxing of the stages helps ensure that we are on the right track and can deliver on time. One of the main goals of every project is to keep a healthy balance between the three constraints: Time, Cost, and Quality. The more balanced the project, the more likely its success.

Whatever project you're working on, the project management cycle can help both you and your team members. It helps in narrowing the focus of the project and ensuring

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that its goals are in check. It is also pivotal by helping finish the project within the timeframe and on budget, with the least amount of unexpected events!

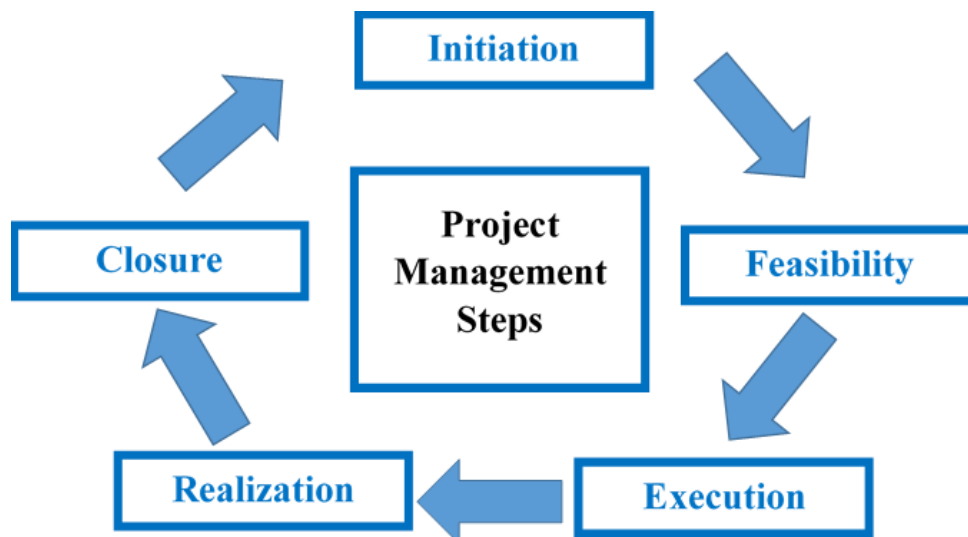
Project Management life cycles are an organized framework of five phases of project management life cycle designed to aid project managers in finishing projects with success.

The main task of project managers is to develop a comprehensive knowledge of the stages of managing projects. Knowing and planning in accordance with the five Project Management life cycles provide steps that will help you organize your projects to ensure that they run smoothly without a hitch. This basic project life cycle definition illustrates how logical it is to have one.

It is much easier for an experienced project manager to handle all of the details that are currently involved in the project when it is divided into different phases.

Five Phases of Project Management Cycles

Project Initiation, Project Feasibility, Project Execution, Project Realization, Project Closure.



In Unit 4, the focus will be on Project Execution, Project Realization, and Project Closure, as Project Initiation and Project Feasibility have already been addressed and completed in Unit 3.

Project Execution

This stage is characterized by the realization of the idea. It involves translating the selected scenario or the model presented in the feasibility stage into a set of tasks arranged in chronological order. At this point, it becomes possible to dimension the project in terms of financial, human, material, and temporal aspects.

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This is a crucial step in preparing for project implementation. At the end of this stage, decision-makers are able to make an informed and reasoned decision regarding the transition to project realization. This decision-making phase is particularly important as it signifies a certain irreversibility of the project.

For this decision-making process to occur under the best conditions, it is necessary to:

- Define the technical content of the project (Work Breakdown Structure)
- Plan (Gantt chart)
- Allocate material and human resources (responsibilities)
- Determine indicators to achieve objectives

Work Breakdown Structure:

A work breakdown structure is a tool that helps you organize your project by hierarchy. With a WBS, you break down deliverables into sub-deliverables to visualize projects and outline key dependencies. Every work breakdown structure is made up of a few parts:

- A project baseline or scope statement, which includes a project plan, description, and name
- Project stakeholders
- An organized project schedule
- Project deliverables and supporting subtasks

Project managers use work breakdown structures to help teams to break down complex project scopes, visualize projects and dependency-related deliverables, and give team members a visual project overview as opposed to a list of to-dos.

From there, you'll organize your structure based on the hierarchical levels of sub-deliverables. Your project might also include phases based on the work needed and the overall project timeline.

The Three Levels of Work Breakdown Structure

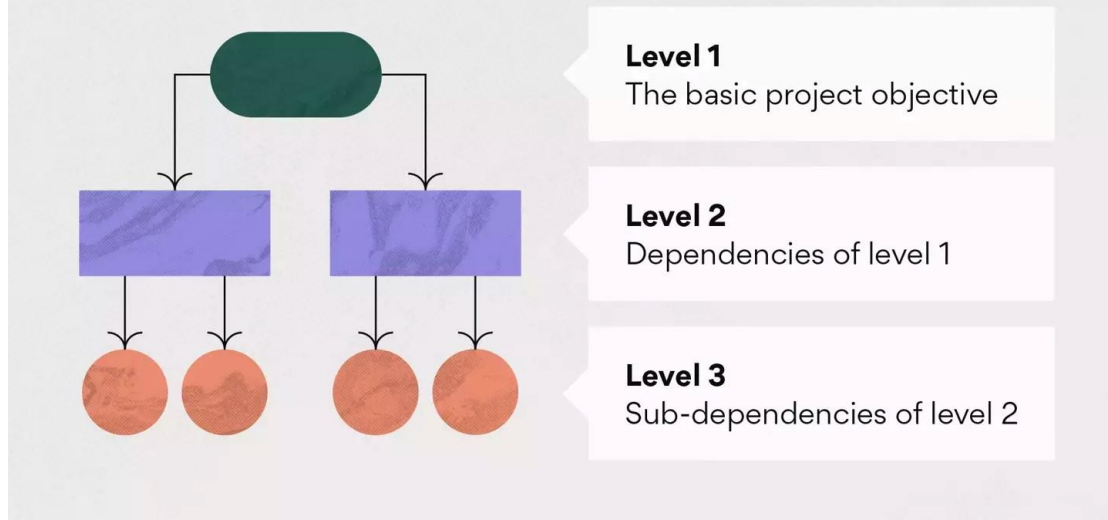
Levels of a work breakdown structure help separate tasks by dependencies. Since projects can differ so significantly, the levels of your work breakdown structure will too. While most projects do have some form of dependencies, it's possible you'll come across projects that don't require sub-dependencies.

There are three main levels of dependencies, though your structure could require more or fewer than that. Each level is connected to a parent task, with the work needed to complete the parent task organized into dependencies.

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The levels of a work breakdown structure



- Level 1: The parent task

The first level of a work breakdown structure is the most simplified form of the project since it contains the parent task. This is usually the same as the project objective.

Let's say, for instance, that your project team is working on revamping your website design. The first level of your WBS might look something like this:

- Launch new website design

As you can see, it's simple and straightforward. Level one is the basic objective and the first step of your many project management phases. The work needed to complete this objective will come later in levels two and three.

- Level 2: Dependencies and tasks

From there, your breakdown structure will get a bit more complicated depending on the scope of the project. Level two of your WBS will include subtasks, otherwise known as dependencies, of the parent task.

For example, let's look at what tasks might be needed to launch a new website design.

- Host a creative brainstorming session
- Revamp brand guidelines
- Create messaging framework
- Redesign your logo

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- Add new photography

While slightly more granular than level one, level two is still a high-level overview of the dependencies needed to complete the project objective.

- Level 3: Subtasks

In the third level of the WBS, break these dependencies down even further into more manageable components called sub-dependencies. At this stage—the lowest level of the project lifecycle—you're defining the most detailed tasks. These actionable tasks will simplify the path to completing all your required deliverables.

Continuing the above example, here are the level three tasks you could use for a new site design:

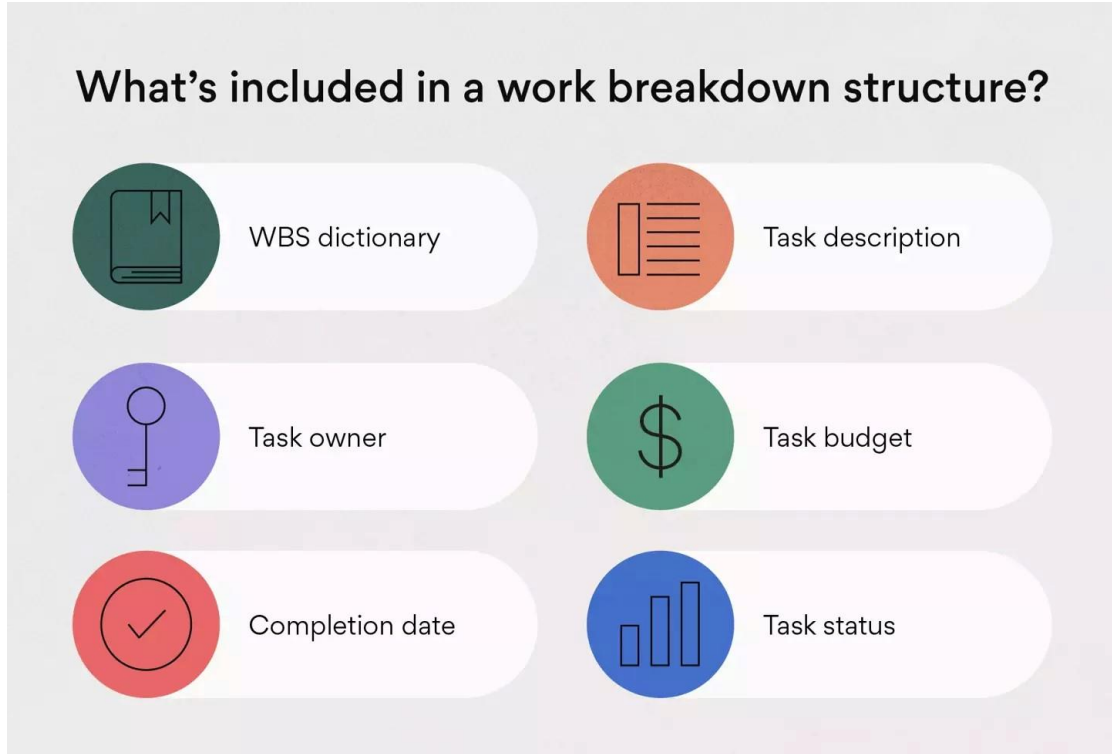
- Choose brand colors
- Build a brand mood board
- Assign UX designers
- Build a mockup design
- Review and approve mockups
- Schedule a brand photoshoot
- Resize and edit pictures

As you can see, the work needed to complete the project objective is becoming much more clear. You may even choose to add additional levels to your WBS, depending on how specific you want your visual to be.

A work breakdown structure is essentially a condensed project plan organized in a visual hierarchy. That means it contains everything that a successful project charter has, which includes WBS elements such as objectives, deliverables, timelines, and key stakeholders.

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WBS dictionary

A work breakdown structure dictionary is a great place to start when building a new project structure. Because the visual nature of a good WBS doesn't allow room for detailed explanations, the WBS dictionary describes each task in more detail. Creating a dictionary is an instrumental part of helping project team members more easily find necessary details of your tasks.

While created by you, it may be beneficial to enlist the help of team members from various departments. This will ensure the dictionary is as useful as possible and all items are explained correctly.

Some fields you should include in your dictionary are:

- **Task names:** Keep this clear and simple, a few words at most.
- **Descriptions:** Go into a little more detail but no more than a sentence or two.
- **Deliverables:** Again, specificity is your friend here. Be clear about what, exactly, you're expecting the team to complete.
- **Budget:** your projected expenses, including how much you'll spend, for what, and by when.
- **Milestones:** Significant moments on the project timeline where a batch of tasks are completed.
- **Approvals:** What tasks—if any—need approvals.

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While there are multiple fields you can include, the main thing to consider is creating a resource where project team members can find information on the project work needed to complete various tasks.

Task description

The task descriptions include both a task name and a brief description of the objectives. Since your WBS won't have space for a full description, you can include additional details in your WBS dictionary.

The objective of the task description is for team members to easily recognize what the task is in the shortest way possible. So don't get too caught up in the level of detail needed just yet.

Task owner

The assigned task owner is an important piece to include both for accountability reasons and for communication. The easier it is to find answers, the quicker the tasks will be finished. While project managers are often task owners, department heads, and managers may also be owners depending on the type of task.

There's nothing worse than wasting time looking for project information. Assigning task owners can improve team productivity as project stakeholders will be able to quickly direct questions to the appropriate person.

Task budget

While not always needed, projects that require large budgets should be tracked carefully. It's helpful to assign specific task budget caps in order to easily track how close you are to your allocated budget.

Not tracking your budget could result in spending more than anticipated, which can dig into your profit margin. So be sure to not only track your total budget but individual task costs as well.

Completion date

It shouldn't be a shock to hear that tracking your target completion date is a rather important detail. That said, it's important to be prepared for changes to your completion date.

While it can be difficult to manage multiple projects that go over their allotted timeline, sometimes it's inevitable. In order to properly track progress, you should break down each task in a timeline or other project management tool. This way you can catch timeline delays in real time and work to prevent deadline issues from stacking up and causing you to miss your original completion date.

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Task status

Along with timeline tracking, documenting task status is important for quick progress checks. This can be logged in a few different ways, but many teams use terms such as open, in progress, and complete.

This will not only help track progress but give a high-level overview of team productivity. For example, if there's a pattern of select teams unable to complete tasks there may be an underlying issue. That way you can work to solve team workload or communication issues before they become huge problems.

Plan (Gantt chart):

Forecasts and anticipation

Planning is an instrument for representing a forecast over time.

Planning is a discipline that allows:

- identify all the tasks necessary to carry out the project;
- estimate the duration of tasks;
- plan their sequences;
- determine the “milestones”;
- determine the “deliverables”;
- determine the critical path(s);
- provide the necessary resources;
- plan all supplies.

The goal of planning a project is to predict the activities that will take place over time and to order them logically. What is expected from planning is to control deadlines, in order to have control over the progress of the schedule to anticipate delays and not notice them.

Tasks, milestones, deliverables

- A task is an operation to be carried out as part of a process to achieve a result.
- A milestone is a major event identified in the schedule by a task of zero duration. It will be intended to signal the start of a new phase of the project (generally during a project review). It therefore results, from the establishment of a milestone, that a control, verification or validation action is initiated before changing phase.
- A deliverable is a result that results from the completion of a part of the project (document, production, etc.) or from the project itself.

In this case, we will use the GANTT chart for its clear and educational graphic representation which promotes exchanges and communication. Its reading and interpretation present no ambiguity, it is the ideal support for general presentations and management committee meetings.

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To create the GANTT chart, we will represent:

- on the abscissa: the time scale;
- on the ordinate: the list of activities.

It is necessary to develop this type of planning:

- define a schedule adapted to the work monitoring period;
- identify activities;
- determine their duration (start/end);
- anticipate constraints (periods of inactivity, etc.);
- define task sequence logic (prioritization, grouping development, logical links, relationships between tasks, etc.)..

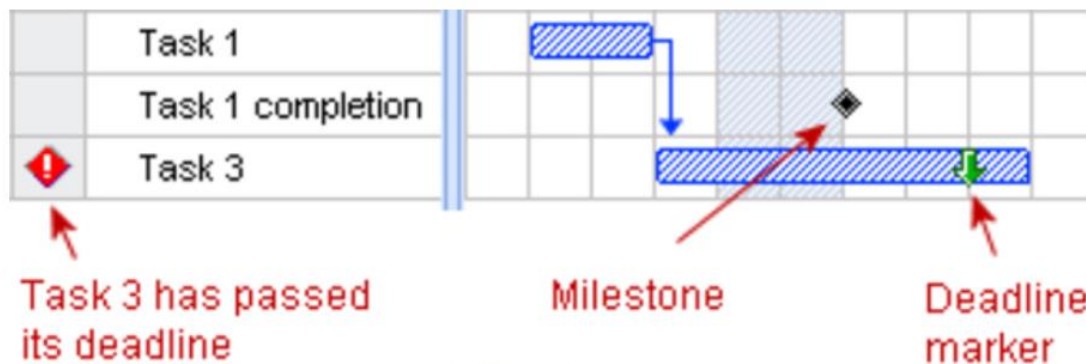
6 Steps to Make a Gantt Chart:

Step 1 - Review Scope Baseline

Gather the team and review the approved scope baseline, which consists of three components: 1) the Scope Statement, 2) the Work Breakdown Structure (WBS) and 3) the WBS Dictionary. The project team member should confirm that the scope baseline addresses 100% of the project scope.

Step 2 - Create Activities

Using a technique called Decomposition, the project team breaks down each WBS work package into activities. Just like when creating the WBS work packages, the team needs to set rules for creating schedule activities. The final schedule needs to be the one that is effective and efficient. Too many activities can be as bad as too few. It is also important to identify deadlines and milestones while decomposing the project.



Gantt chart deadlines passing

Step 3 - Sequence Activities

Every activity is related to one or more other activities. Every activity, except the first and last, has a relationship with a predecessor and a successor. Sequencing activities means placing the activities in the right order using the right relationships. There are four types of relationships:

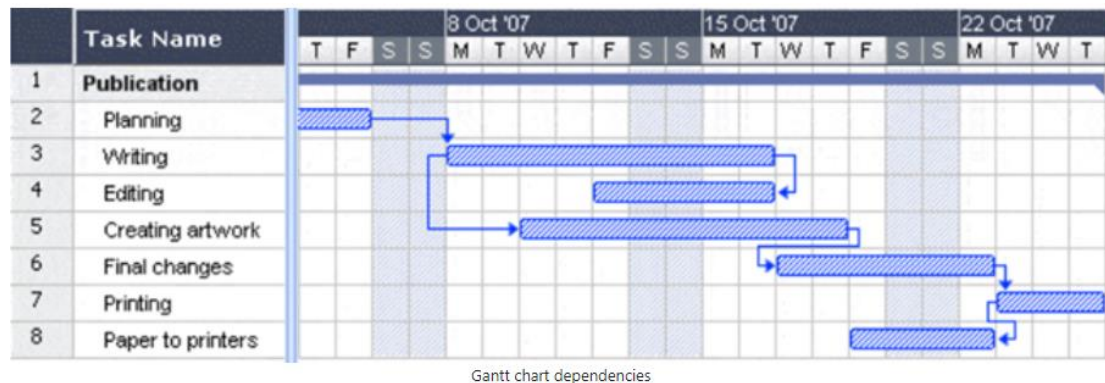
1. Finish to Start – Cannot start the successor activity until its predecessor is finished.
2. Start to Start – Cannot start the successor activity until its predecessor has started.

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3. Start to Finish – Cannot finish the successor activity until its predecessor had started.
4. Finish to Finish – Cannot finish the successor activity until its predecessor has finished.

Relationships 1 and 2 are the most commonly used. Finish to Start is a sequential relationship and Start to Start is typically a parallel or over-lapping relationship.



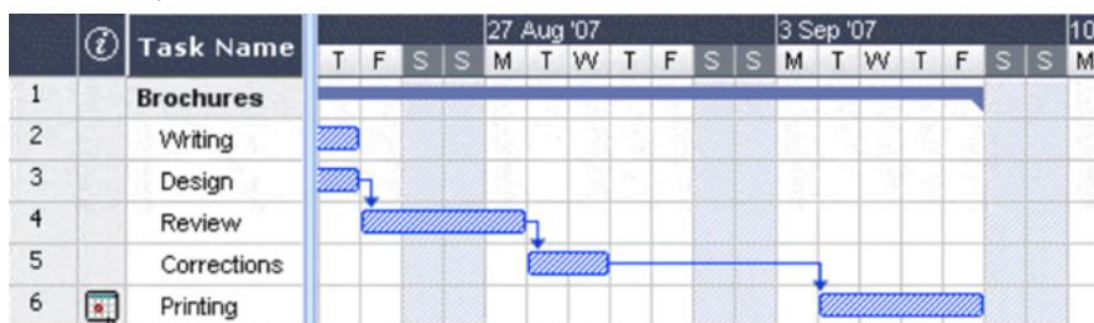
Gantt chart dependencies

Step 4 - Estimate Resources

Before the durations can be estimated, resources must be identified and estimated. Resources include labor, material and equipment. There are several estimating techniques used including Analogous, Parametric, Three-Point and Bottom Up. Skills, competencies and technology are key factors to consider in the basis of the estimate. After estimating the resources, they are loaded in the schedule against the respective activities. A resource calendar is also created to show when resources are needed and available.

Step 5 - Estimate Durations

Duration is the time between the start and end of an activity. Review the resources, relationships and sequencing, then estimate the duration for each activity. The same estimating techniques used for estimating resources can be used to estimate durations, but make sure you identify constraints. Which are limitations or restrictions on an activity.



A constraint is set on this task:
Must Finish On 07/09/2007

Gantt chart constraints

Step 6 - Develop Schedule

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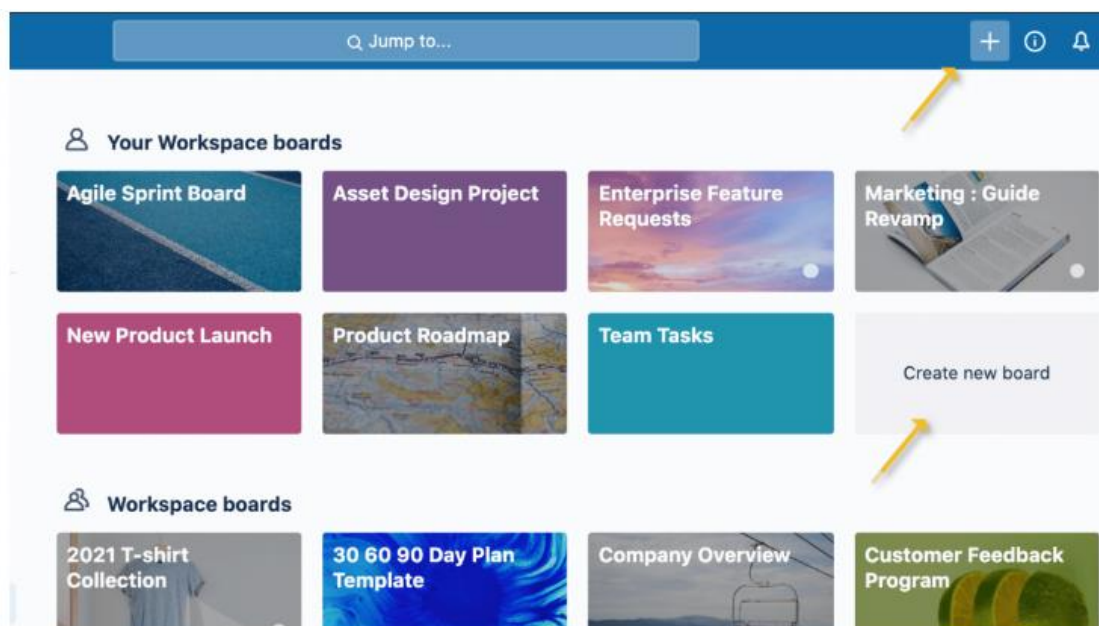
Create the Gantt chart by loading all information into a project management software tool. Review the schedule and ensure that all schedule risks have been addressed. Check that response plans and schedule contingencies have been included. A typical way to address schedule contingencies is to add Buffers at the activity level, the project level or both. A Buffer is an activity with no resources or scope to provide additional time and reduce schedule risks. Resource optimization techniques, such as resource smoothing or leveling are used to create realistic schedules. Review and approve the schedule. The approved Gantt chart schedule becomes the schedule baseline.

Build your first project in Trello

As with any project, you need to manage a lot of information, track task statuses, and pull in the right stakeholders at every phase of the project. The objective is to move forward at a steady pace and ensure you can deliver on time and within budget—all while keeping a smile on your face. Trello can help you every step of the way.

Create a board

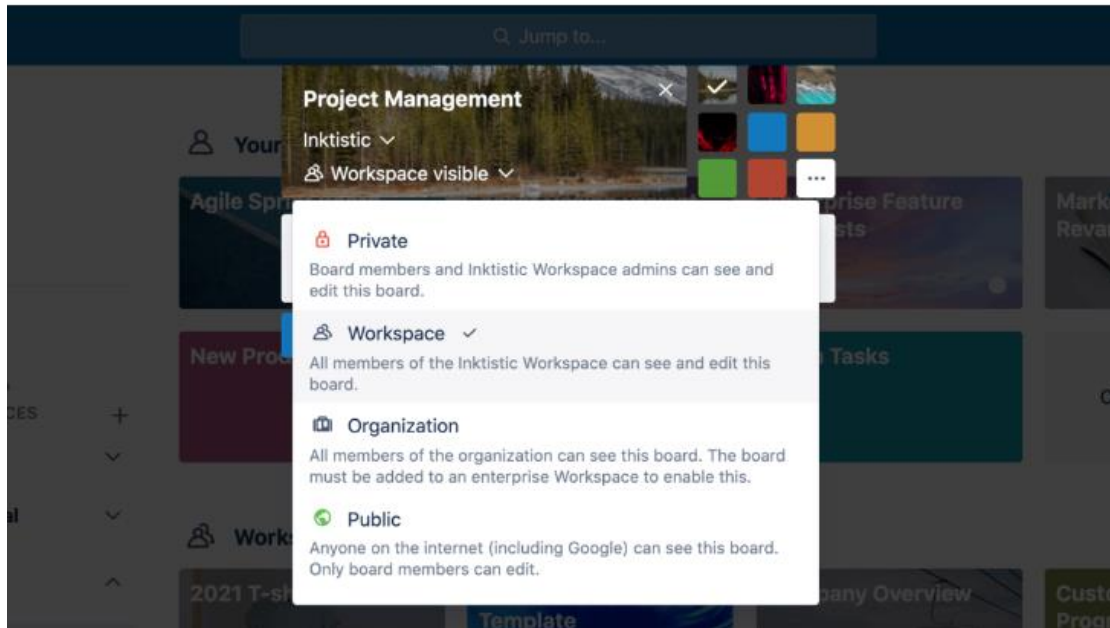
Structuring a project with all the members, ideas, tasks, and due dates and optimizing it for team collaboration can be overwhelming. You can organize everything to meet your needs and be successful.



- From the team’s Workspace tab, click “Create new board” or click the plus button (+) in the Trello header directly to the left of your name, and select “Create Board”.
- Name the board to represent whatever you are working on, from organizing an event or managing a blog, to tracking sales leads or launching a new product.

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Your project data and information are your most valuable assets. As you work through creating a new Trello board, you will have options for adjusting your privacy settings.

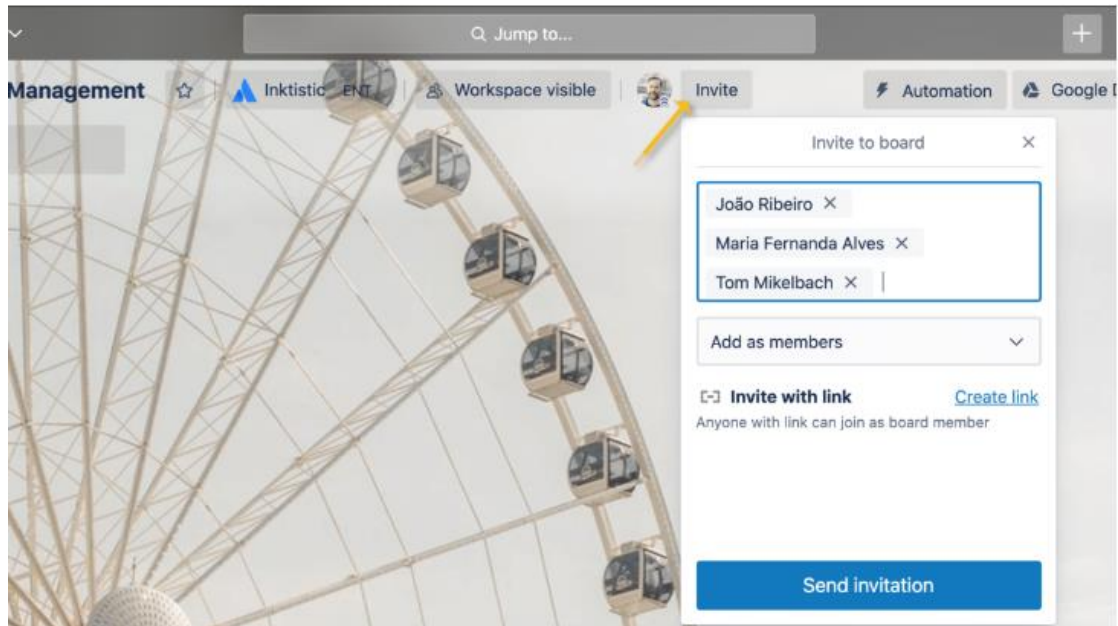
- When you are creating a board, the default setting is 'Workspace Visible' which means any members of that Workspace can view, join, and edit cards.
- If you change your settings to **Private**, only members of that specific board can see it. Typically, you want to default to Private if you are working on a more restrictive project and do not want other team members to access it. It is great for 1:1 boards, personal to do's boards or boards shared with customers.
- **Public** boards allow anyone with the link to the board to see it. Public boards are ranked on search engines such as Google, meaning that any information on this specific board will be accessible to anyone on the internet. This setting can be used for a public project or for product roadmap that is open to public feedback. Just like other board settings, you can granularly choose who can comment, add or remove members, and edit and join the board.

Start collaborating

Whether a member is in charge of a project or only checks in occasionally for project status updates, ensuring all team members are on the same page results in a better project collaboration experience.

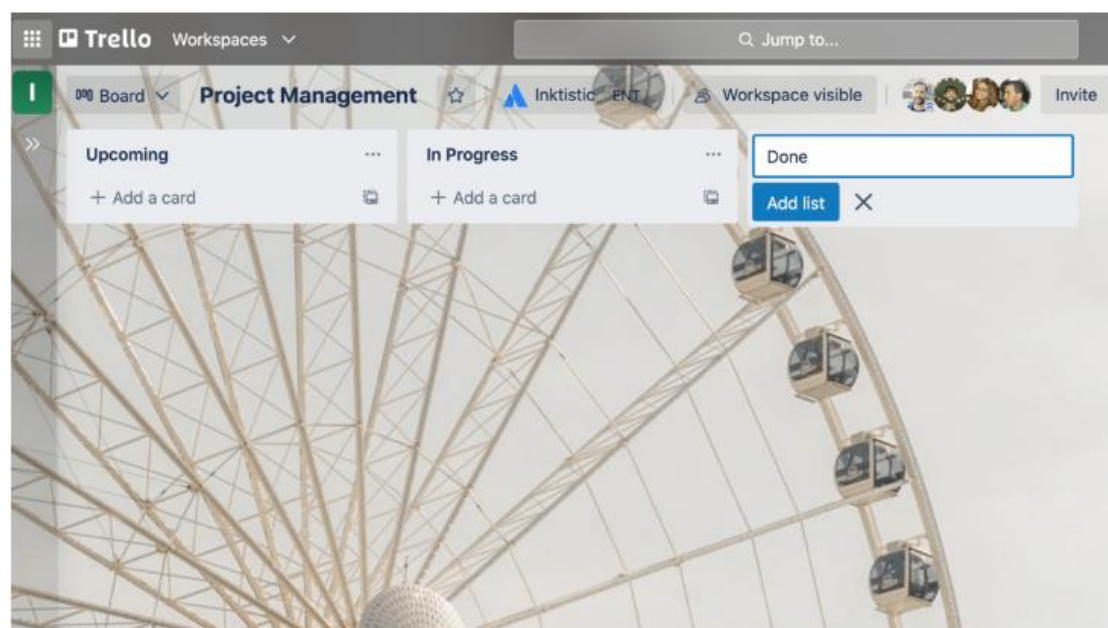
Invite members to the board so that they can be assigned to tasks and collaborate on the board.

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Build a workflow

Lists in Trello help you organize your cards by status. They can represent different things like a collection of ideas or tasks within a larger project.



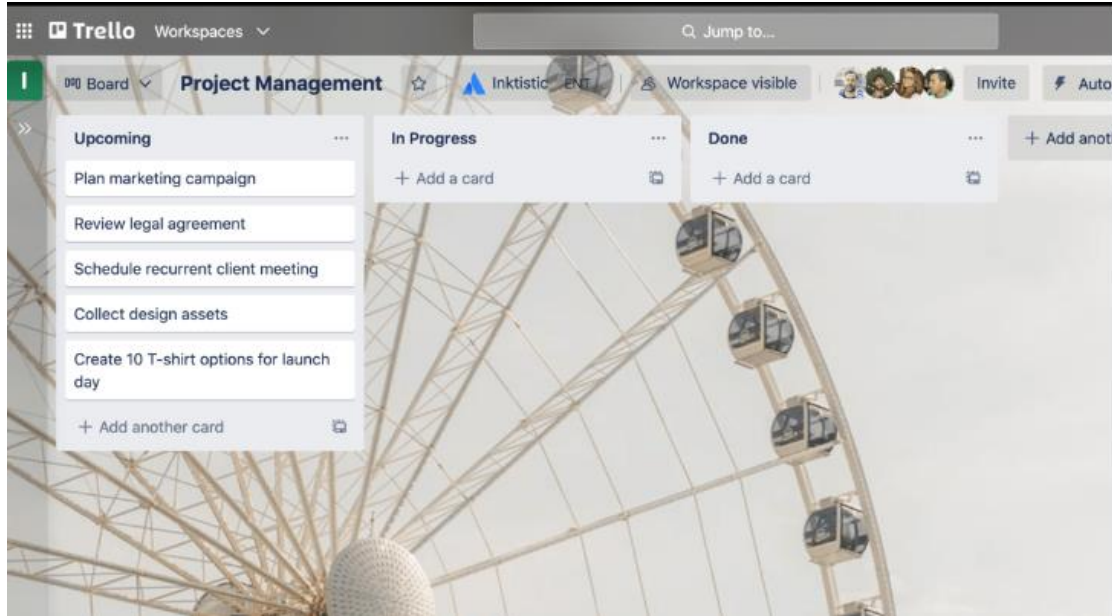
Add tasks and to-dos

As a fundamental unit of a board, cards are used to represent tasks and ideas. It can be used for something that needs to get done like a customer support issue, a new design, a blog post, or something project-related that you need to be reminded of.

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Cards can be customized to hold a wide variety of useful information by clicking on them. Drag and drop cards across lists to show progress. There’s no limit to the number of cards you can add to a board.

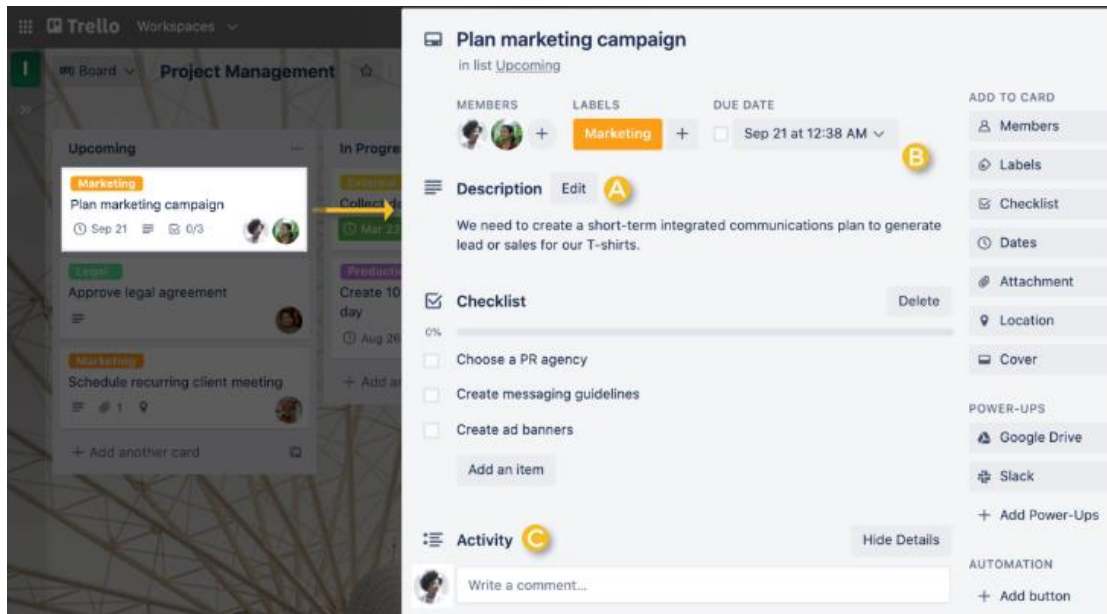


Add cards for each task that needs to be completed by clicking “Add A Card” in the first list. Keep card titles short to make it easier to scan and see the status of each card on the board.

So that everyone has a clear understanding of what needs to get done, click on cards to add more information such as:

- Descriptions
- Due dates
- Members
- Checklists
- Attachments
- Comments

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Now you can see how Trello keeps everyone on the same page with all of the information in one place.

Project Realization

It is during this stage that all previously defined forecasts come to fruition, and the resources sized during the design phase are committed.

The implementation process considers three fundamental axes:

- The operational implementation of tasks according to the identified chronology.
- Continuous monitoring of the progress of resources (costs, deadlines, quality).
- Ongoing communication between the project manager (master builder) and the project sponsor (the project's commissioner) to address and correct any deviations between the planned and the actual.

This stage is marked by two significant events (milestones):

- The project launch date, signifying the commitment of resources and the completion of the first task of the project.
- The operational transition date, specifying the shift from the project state to that of a product or service.

Project Closure:

Once a project is complete, the team must formally close it. Project managers generally hold a post mortem meeting to evaluate successes and failures. Project close helps a team identify things that went well and areas for improvement.

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Once the project is complete, PMs still have a few tasks to complete before it is officially closed. They will need to create a project punchlist of things that didn't get accomplished during the project and work with team members to complete them. Perform a final project budget and prepare a final project report. Finally, they will need to collect all project deliverables and documents and store them in a single place.

How to structure a final project report?

The end-of-mission report is often referred to as the post-completion report. It is intended to consolidate the following information:

- The final plan (definitive product configuration)
- Summary of technical achievements
- Review of successes and failures, and lessons learned regarding the managerial methods employed

The most commonly used methods to produce this end-of-mission or post-completion report include:

- Debriefing meetings involving all project participants
- Post-completion audit, for significant projects, which entails a rigorous review of the project based on a checklist by stage.

Exercises

Discussion Starters

What are the most important aspects to consider when defining the vision and objectives of a startup project? How can these objectives be formulated clearly and specifically to ensure the success of the project?

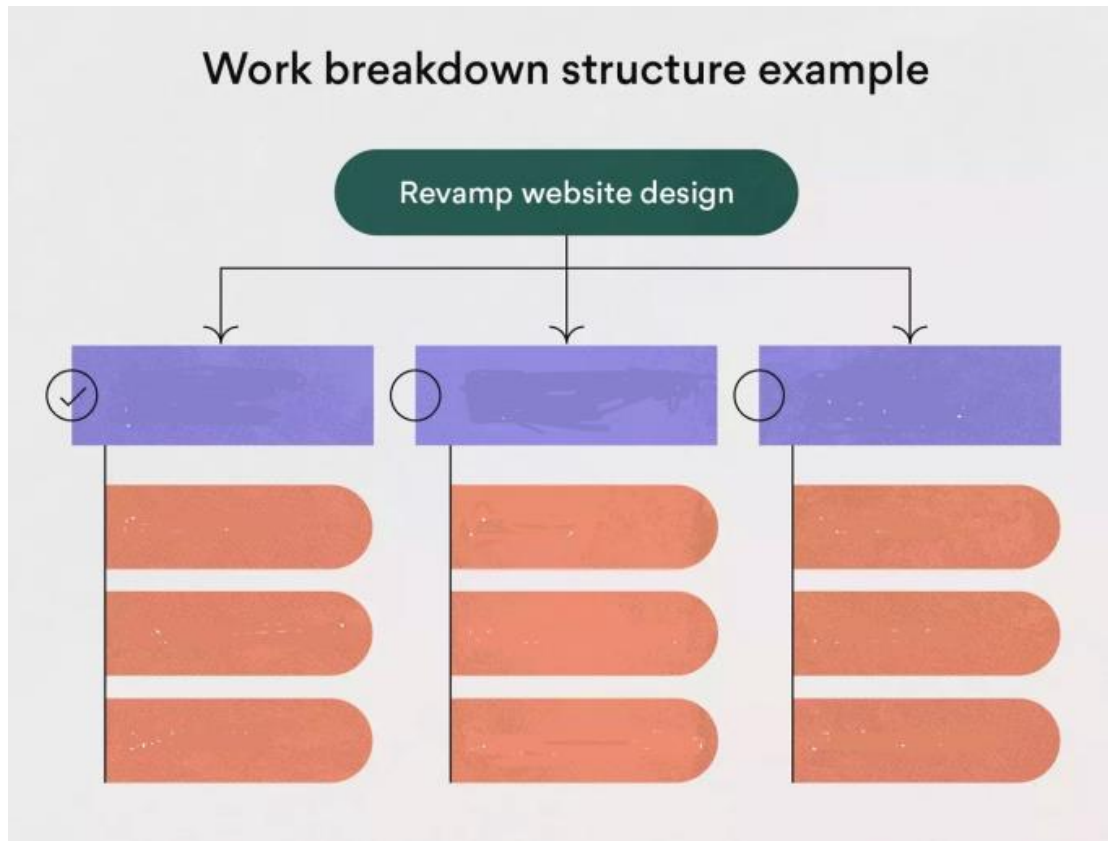
In creating a business plan for a startup, what is the importance of a thorough analysis of the market, competition, and trends? How can this information be used to develop effective marketing and sales strategies?

Activities

Activity 4.1:

In the context of a web design project and the delegation of tasks among team members, I strongly urge you to utilize the principles outlined in 'The Three Levels of Work Breakdown Structure' to craft a comprehensive WBS."

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Here is an example work breakdown structure from the above details to get you started on your own.

WBS name: Website design

Description: Revamp our old website design based on the new branding.

Completion date: 9/15/24

Budget: \$50,000

Level 1:

1. Revamp website design

Level 2:

1. Revamp brand guidelines (Complete)
2. Create messaging framework (Complete)
3. Redesign logo (In progress)
4. Add new photography (Open)

Level 3:

1. Revamp brand guidelines
 - Brand colors—Kat Mooney
 - Brand mood board—Kat Mooney
 - Design UX—Ray Brooks

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2. Create messaging framework
 - Headline—Daniela Vargas
 - Mission statement—Daniela Vargas
 - Language guidelines—Daniela Vargas

3. Redesign logo
 - Sketch—Kabir Madan
 - Mockups—Kat Mooney
 - Final designs—Kat Mooney

4. Add new photography
 - Photoshoot—Kabir Madan
 - Photo edits—Kat Mooney
 - Final selections—Kabir Madan

Activity 4.2:

Creating a Gantt Chart for a Construction Project

Context: You are responsible for a construction project to build a house. You need to create a Gantt chart to plan and organize the various tasks required to complete the project.

Tasks:

- Site Preparation (Duration: 2 weeks)
 - Foundations and Structure (Duration: 4 weeks)
 - Construction of Walls and Roof (Duration: 6 weeks)
 - Installation of Electrical and Plumbing Systems (Duration: 3 weeks)
 - Interior Finishing (Duration: 5 weeks)
 - Landscaping (Duration: 2 weeks)
- Links between tasks:

- Task 1 must be completed before starting Task 2.
- Task 2 must be completed before starting Task 3.
- Task 3 must be completed before starting Task 4.
- Task 4 must be completed before starting Task 5.
- Task 5 must be completed before starting Task 6.

Task durations:

- Site Preparation: 2 weeks
- Foundations and Structure: 4 weeks
- Construction of Walls and Roof: 6 weeks
- Installation of Electrical and Plumbing Systems: 3 weeks

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Interior Finishing: 5 weeks

Landscaping: 2 weeks

Resources:

Construction Team (workers, masons, carpenters, electricians, plumbers, etc.)

Construction Materials (cement, wood, bricks, electrical cables, pipes, etc.)

Roles:

Project Manager: Oversees the entire project, makes strategic decisions, and coordinates different teams.

Construction Team: Responsible for executing specific tasks assigned to each team member.

Suppliers: Provide the necessary construction materials for the project.

Resource allocation:

The same construction team will be involved in the execution of all tasks, but the workload for each member will vary depending on the project stages.

Suppliers will provide materials as the project progresses, based on the specific needs of each task.

Self-assessment questions

	TRUE	FALSE
1. Project management involves the organization and coordination of resources to achieve specific objectives.	✓	
2. A Gantt chart is a team communication tool used to organize tasks and dependencies.		✓
3. The initial step in defining a project is to develop a detailed business plan.		✓
4. Effective communication in project management involves regularly scheduling meetings with the team to discuss progress and issues.	✓	
5. The role of the project manager is solely to make strategic decisions for the project.		✓
6. A business plan in project management details the business model, marketing strategies, and financial objectives.	✓	
7. Regular project monitoring allows evaluating progress against objectives and making important decisions if necessary.	✓	
8. Key elements of a business plan include long-term vision, specific objectives, and market and competition analysis.	✓	

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9. Forming a strong team in project management is essential to improve project productivity and efficiency.	✓	
10. It is not important to remain flexible and adaptable in project management, as the initial plan is sufficient to achieve the objectives.		✓

Examination questions

1. In project management, why is it important to define a clear vision for the company before formulating specific objectives? Explain how this vision helps guide decisions and actions throughout the project.
2. Choose a specific step in the process of creating a business plan for a start-up and describe how this step contributes to the overall success of the project. Additionally, identify potential challenges you might encounter at this step and propose strategies to overcome them.
3. Communication is essential in project management. Describe in detail how effective communication among team members can improve collaboration, avoid misunderstandings, and facilitate quick issue resolution.
4. You have been appointed as the project manager for a large-scale construction project. Identify five potential risks that your project might face and describe how you plan to manage them to ensure project success.
5. As a project manager, you are faced with an unexpected market change that could impact the demand for your product. Develop a response strategy to address this change, considering necessary adjustments to the business plan and impacts on the project's schedule and budget.

Further readings and recommendations

Further readings

1. Project Management Institute. (2017). A Guide to the Project Management Body of Knowledge (PMBOK Guide). Project Management Institute. <https://www.pmi.org/pmbok-guide-standards/pmbok/>
2. Mullins, J. W. (2019). Management and organizational behavior (11th ed.). Pearson.
3. Harvey, M. (2017). The Oxford handbook of international project management. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780198808589.001.0001>
4. Thomas, D. C., & Inkson, K. (2004). Cultural intelligence: People skills for global business. Berrett-Koehler Publishers.
5. Verma, R. (2017). International project management: A cultural perspective. Routledge. <https://doi.org/10.4324/9781315723919>.

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Web links

1. ProjectManagement.com: <https://www.projectmanagement.com/> A platform that provides resources, tools, and articles on project management, including international project management.
2. Global Negotiations: <https://globalnegotiations.com/> An online resource for international business negotiations, providing information and tips on cross-cultural communication and negotiation skills.
3. Culture Compass: <https://www.geert-hofstede.com/cultural-compass.html> An online tool that allows users to compare and contrast different cultures, based on Hofstede's Cultural Dimensions Model.
4. Trello: <https://trello.com/> A project management tool that allows teams to manage and organize their projects, including cross-functional and international teams.
5. Slack: <https://slack.com/> A communication platform that facilitates communication and collaboration between team members, including remote and international teams.
6. Microsoft Teams: <https://www.microsoft.com/en-us/microsoft-teams/> A collaboration platform that allows teams to communicate, share files, and manage projects in a single platform, including international teams.

References

<https://www.henryharvin.com/blog/what-is-international-project-management/>

<https://download.e-bookshelf.de/download/0000/5949/08/L-G-0000594908-0002362404.pdf>

<https://www.manage.gov.in/studymaterial/PM.pdf>

https://hrmars.com/papers_submitted/9230/project-manager-role-in-project-management-success.pdf

<https://docplayer.net/8890695-International-project-management.html>

<https://www.atlassian.com/project-management>

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Unit 5: Business Plan

Learning outcomes of the unit

After completing this unit, the students will be able to:

- Understand the terms business plan and business model.
- Get a view of all the steps that can lead to commercialization.
- Design a Business Model Canvas.
- Conduct preliminary market research.

Introduction

What is a business plan?

The Business Plan is an official document which can efficiently describe the main goals and all the foreseen actions in order generate profit from a business idea. A common practice of a Business Plan, it is to often specify the timeline needed in order to implement the planned actions and achieve the final goal.

(Boushy, 2021), (“Business Plan”, 2023)

The Business Plan is often used as a mean to persuade others to invest on a commercial idea, or on a newly founded company. Besides that, it is a very useful step for the product commercialisation process and marketing exploitation. It can include market research, frame-working of the legal structure, and all the key aspects meant to be achieved.

“A business model describes the rationale of how an organization creates, delivers and captures value”

Alexander Osterwalder, Business Model Generation

When should someone write a Business Plan?

A successful Business Plan should take under account several aspects such as: market research, competitors’ analysis, pricing policy, and building of the business model. Some of those aspects are about to be analysed in this present unit and insights about why they are important will be granted.

The unit will present basic tips in the form of steps, for developing a successful Business Plan. This analysis is expected help young students with business ideas and goals, start-ups, or people engaging in entrepreneurial activity in general.

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Why is a Business Plan needed early on? –

“..the most successful entrepreneurs were those that wrote their business plan between six and 12 months after deciding to start a business..”

Francis J. Greene and Christian Hopp, Harvard Business Review

Not only visioning the structure of your business, but actually plan, write down and timeframe specific activities is vital for a new company.

Structure of a business plan

Some key units of a business plan are presented, alongside example and indications about the content.

1. Executive Summary
2. Concept /Idea
3. Team Introduction
4. The product
5. Market analysis/need
6. Competitor analysis
7. Business model
8. Future steps/Planning of the activities
9. Pitch Presentation

Executive Summary

This is the first part of the document needs to be short and to the point. The innovative product/service that the business plan is about, should be described precisely. In this first part all the main points of the following document should be addressed, alongside references to the team members and some key-goals.

ADVICE: This part should be intriguing enough for the reader in order to proceed to the rest of the document.

Concept/Idea

In this part of the document, the main idea behind this business proposal is presented in a clear way. This is the part where the main inspiration behind the product service is provided. Questions that can be answered here are:

- What is the main problem you are about to solve?
- What are the existing solutions?
- What will the main features of the product be like?

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ADVICE: The business model concept should be presented relatable and understandable but not oversimplified (Osterwalder & Pigneur, 2010).

Team Introduction

Usually, in the beginning of a business idea, more than one people are involved. This section is an opportunity to present a capable team and attract future investors/clients etc. Each team member should have a distinct and specific role in the team. Moving forward with this

ADVICE: Include shared experiences of the team and highlight team building.

The product

Here is the part where the product is described, including all the details and specifications that the manufacturer/producer/creator thinks are important. In this section of the business plan an opportunity arises to be creative and differentiate depending on the type of the product. You can use many ways to describe the product, including photos, schemes etc. and you can include technical details as well. In case the final product isn't fully ready yet, you can add next steps, future goals, and improvements regarding the product's specifications.

ADVICE: Be moderate for the future steps of your product and describe something achievable.

Market analysis/ need

When trying to launch a new product in the market, an important factor is to spot any profitable opportunities, making the market attractive. This section includes research results about the customers' needs and tendencies, as well as specific metrics about the size of the market and statistical information that could enhance the original idea (Coursera, 2022).

ADVICE: Include metrics, demographics and critical factors that could influence the market you are operating in

Competitor analysis

After the extended market research, the next step it trying to identify a potential market gap for the innovative solution. An important part of the business plan is to analyze the already existing solutions, present the competitors and the specific markets they are operating in. In this part you can include direct and indirect competition, refer to products' details and highlight all the differences between them and the new product you are suggesting.

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Basically, you will provide with an answer to the question: Who is your competition and what are you planning to do differently compared to them?

ADVICE: Include a competitors' matrix to present the results (Riserbato, 2022)

Business Model

Market and competitor analysis act as a for the next step: creating a successful business model which will actually allow you to gain profit from your developed product. The business model is used to describe exactly how you and your partners are planning to obtain profit from your innovative solution.

A commonly used way to build and present a business model is by creating a business model canvas. A canvas consists of building blocks where you can present all the basic concepts of the entire business visually. According to the referenced sources, 9 building blocks are considered the most crucial for business model development.

An example of the Business Model Canvas is presented in Figure 1:

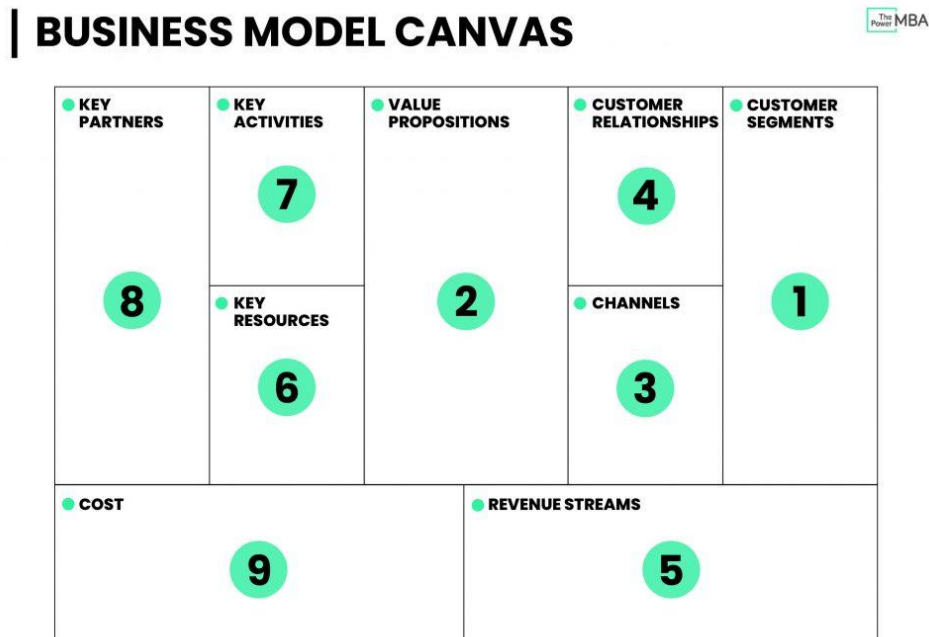


Figure 5 - Business Model Canvas example (retrieved from "The Power business school", available at: <https://www.thepowermba.com/en/blog/business-model-canvas>)

Customer segments: In this block all the different target groups are listed. One or multiple segments can be served by the same product. This block includes the important decision of which segments the company/organization is trying to reach.

Value Propositions: In this building block, an attempt to answer the question “what value can you deliver to the customer?” in being made. Quantitative data, bonus services and competitive price offerings and all types of advantages can be referred here.

Channels: The potential ways through which the developed solution aims to connect with future clients are presented in this section. For a more complete approach, it is important to list future steps needed in order to communicate the product through these channels.

Customer Relationships: After the customers and ways to reach them have been specified, the next step is to define what type of relationship you want to achieve with anyone of them. Some examples can be self-service, personal assistance etc.

Revenue Streams: The revenue streams block reflects directly to the customer segments and basically is an answer to the question “ How do you plan to profit from your product?”. Pricing policy can be decided and presented in this block.

Key resources: What are the most important resources for the proposed solution? The resources can be physical (like buildings, facilities, etc), intellectual or human.

Key activities: In this block, the most important activities for gaining profit are presented and translated into actions.

Key partners: When completing this section, you can refer to buyers, suppliers, internal partners or even competitors.

Cost Structure: In this last building block, all the foreseen types of costs that arise from the forementioned types of activities, are listed. Some of them can be fixed, other variable.

All the above blocks are used to build a unique business plan for the proposed innovative solution.

(Alberdi, 2023)

ADVICE 1: Make your business plan understandable without oversimplifications (Osterwalder & Pigneur, 2010).

ADVICE 2: Try to translate your plans into actions.

Future steps/ Planning of the activities

After having specified the actions and key activities needed in order to achieve the business goals, the next step is to plan a specific timeline for them. Include key dates and use indicators to measure the results of your impact (e.g., milestones).

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ADVICE: Plan realistic goals that you truly believe you will be able to achieve

Pitch Presentation

Once the framework of your business plan is set, you can create the pitch presentation of the product. In the pitch you can include slides with content obtained from all of the above sections and highlight the most appealing parts.

ADVICE: Use numbers and statistics to catch the attention of the audience, focus on your team and purpose

Exercises

Activities

Activity 5.1 – Market & Competitor analysis

Let's say you came up with an innovative idea: a robotic solution used for transportation of small items inside office facilities (for example documents which need signatures or copies, letters, small office supplies etc).

**Note: You can select some other idea/concept if you wish, either innovative & cutting-edge or an already established business solution e.g. a commonly used and successful app*

Try to imagine every detail regarding your product: dimensions, functionalities, technical features (e.g., charging time) etc. In case you chose an existing solution search for as many information as possible.

Describe the solution briefly:

You are asked to conduct a market analysis for your new product. Firstly, you will have to categorise your product and subsequently research the market you are about to enter. If there isn't a direct market for your product yet, you can use elements and compare your product with a solution that provides similar functionalities.

Then fill in the table:

	Feature 1	Feature 2	Feature 3	Feature x
Competitor 1				
Competitor 2				
Competitor x				

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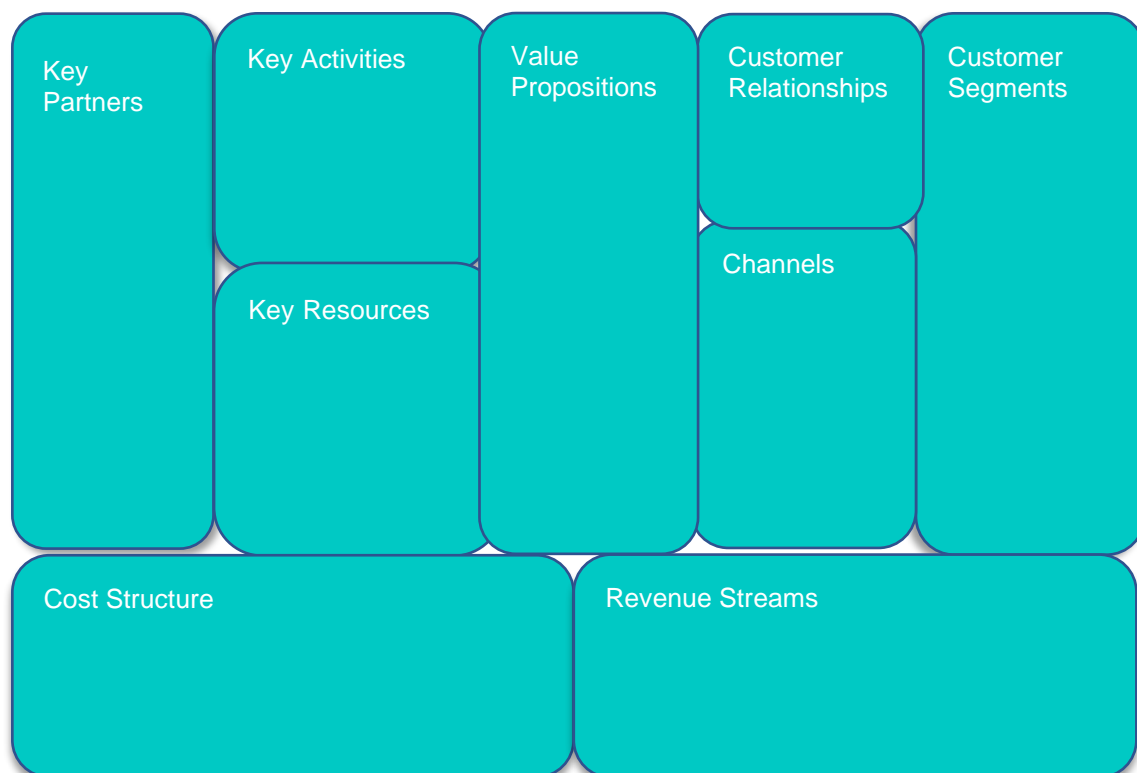
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❖ Discussion starters:

- What are your strongest features compared to others?
- Why is important to develop innovative solutions?

Activity 5.2 – Build a business model canvas

You are now asked to build a business model canvas for your solution, by using the information described in this unit. You are asked to use the same solution/idea as Activity 1 and fill in the board:



❖ Discussion Starters:

- What part of the canvas was more difficult to fill in? Why?
- In what parts of the canvas did the previous analysis help you?

Self-assessment questions

Answer the following questions:

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11. Writing a Business Plan should be an early action. True or False
12. Structure of the business plan is synced with the course of actions of the business research. True or False
13. Other competitors are not important as long as the proposed solution is unique. True or False
14. The product should be fully ready and tested when launching a business proposal. True or False
15. Key resources can be In what stage do you “step into the user’s shoes”?
b. Physical b. Intellectual c. Human d. All of the above
16. Customer relationships block in the BM Canvas is referring to:
b. Friendship b. Specific customer segments c. Teleconferences d. Clients demands.
17. Planning the future activities with specific timelines is important. True or False
18. What is the block of the BM Canvas that summarizes the business proposition?
b. Value Propositions b. Costs c. Revenue Streams d. Channels
19. Competitors matrix is:
b. Used only for advertising b. unnecessary if the product is innovative c. consisted of specific fields d. used to highlight why the suggested product is better.
20. A pitch presentation should include:
b. Qualitative data b. Quantitative data c. Presentation of the team d. All if the above

Answers: (1. T, 2.T, 3.F, 4.F, 5.d, 6.b, 7.T, 8.a, 9.d, 10.d)

Examination questions

1. How would you start writing your business plan and what sources would you use?
2. According to your understanding what is indirect competition and should you include this in your competitors matrix?
3. Do you think that market analysis and competitors research could go hand-in-hand with the development of the product? What would be the best option? Please elaborate.
4. What does someone wish to communicate through a business plan? To whom you would send your business plan?
5. According to you, what’s the definition of a business model?
6. Do you agree with the numbering/order of the Business Model Canvas blocks? Why? If not, what are your suggestions?

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7. According to your personal view, name two outcomes that would indicate a successful Business Plan.

Further readings and recommendations

You can refer to the following material for more information, practical tips and general knowledge purposes.

Further readings

3.3.1.1 Introduction to Business Models

In this document is an introduction to the business models, its use and their importance. The Business Model Canvas is presented, alongside several aspects of the business modelling process.

Nielsen C. & Lund M. (2014, March). An Introduction to Business Models. *SSRN Electronic Journal*. DOI: [10.2139/ssrn.2579454](https://doi.org/10.2139/ssrn.2579454)

3.3.1.2 How to make most of a Competitive Matrix

In this page, a strong tool of the business plan structure the competitive matrix is explained and analysed. Simple examples and detailed analysis about how the matrix facilitates the decision-making process of business activities.

March L. (2022, February 24). How to Make the Most of a Competitive Matrix. *Similarweb Blog*.

<https://www.similarweb.com/blog/research/market-research/competitive-matrix/>

Web links

3.3.2.1 The Explainer: What is a Business Model?

This video attempts to explain briefly the term “Business Model” which is used very often at business.

Harvard Business Review. (2019, July 2). The Explainer: What is a Business Model? [Video]. YouTube. <https://www.youtube.com/watch?v=C-vGu2mL38>

3.3.2.2 9 Handy Business Calculators That’ll Make Your Life Easier

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This article lists nine very useful tools for calculating commonly used business indicators, such as ROI, SLA etc. Some of those calculators can be helpful when including qualitative data in the business plan.

White C. (2022, May 27). 9 Handy Business Calculators That'll Make Your Life Easier. *HubSpot*. <https://blog.hubspot.com/marketing/business-calculators>

References

1. Boushy, B. (2021). How to Write a Business Plan (Plus Examples & Templates). Retrieved from upflip: <https://www.upflip.com/learn/how-to-write-a-business-plan>
2. Business Plan. (2023, February 7). In *Wikipedia* https://en.wikipedia.org/wiki/Business_plan
3. Osterwalder A., & Pigneur Y. (2010). *Business Model Generation, A Handbook for Visionaries, Game Changers, and Challengers*. Hoboken, New Jersey: John Wiley & Sons, Inc.
4. Francis J. & Hoop G. & C.. (2018, May 18). When Should Entrepreneurs Write Their Business Plans? Retrieved from Harvard Business Review : <https://hbr.org/2018/05/when-should-entrepreneurs-write-their-business-plans>
5. Coursera. (2022, July 15). Market Analysis: What It Is and How to Conduct One. Retrieved from Coursera: <https://www.coursera.org/articles/market-analysis>
6. Riserbato, R. (2022, July 01). Competitor Matrix Types. Retrieved from HubSpot: <https://blog.hubspot.com/marketing/competitive-matrix>
7. Black, A. (2021, March 01). Competitive Analysis Matrix - 6 Ways to Map Your Competitive Landscape. Retrieved from WideNARROW: <https://www.widenarrow.com/blog/competitive-analysis-matrix-examples-6-ways-to-map-your-competitive-landscape>
8. Alberdi, R. (2023, February 8). The 9-Step Business Model Canvas Explained (2023 Update). Retrieved from The Power business school: <https://www.thepowermba.com/en/blog/business-model-canvas>
9. Small Business Plans.(2023, January 21). Business Plan Table of Contents. *Small Business Plans*. <https://smallbusinessplans.com/templates/presentation-organization/table-of-contents/>

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Unit 6: Market Analysis

Learning outcomes of the unit

1. Students can prove that their business idea can exist in the external environment.
2. Students can analyse and characterize the market, industry, and competitive environment of their product.
3. Students can get information about business environments from open sources, process and analyse the retrieved data.

External environment and ecosystem

Business success is dependent upon the environment in which it exists. Business environment refers to a set of internal and external interdependent factors and conditions affecting the business. It consists of: (i) the external environment, defined by the factors and forces that are out of the company's control, and (ii) the internal environment shaped by the factors that can be controlled. Business must adapt to the external environment which can be divided into:

- The External Microenvironment - a set of the factors and forces that directly affect the company's ability to serve customers: consumers, intermediaries, suppliers, state authorities, banks, media and competitors.
- The External Macroenvironment - a set of the factors and forces affecting the entire society: demography, natural factors, culture, political environment, law, socio-economic factors, scientific and technical development.

The most popular analytical tools for studying the factors of the external environment are PESTLE analysis and SWOT analysis.

PESTLE (stands for **P**olitical, **E**conomic, **S**ocial, **T**echnological, **L**egal, and **E**nvironmental factors) analysis allows learning how various elements of the external environment can affect the business. Examples, explanations and visualization can be found in 3.3.2 as well as in (Enochson, 2022).

SWOT analysis aims to identify both internal and external environmental factors and divide them into four categories: **S**trengths, **W**eaknesses, **O**pportunities and **T**hreats. Examples, explanations and visualization are available in 3.3.2.

To implement your own project, you should not only understand the environment in which you will find yourself but choose a model for the interaction with it (Fig.1). Businesses that need collaboration with others to share the risks, contribute complementary capabilities, and build the new market quickly, before competitors mobilize, often choose being a part of a business ecosystem as their governance model.

High	Open market (e.g., the toothpaste market)	Business ecosystem (e.g., smart home or digital platforms)
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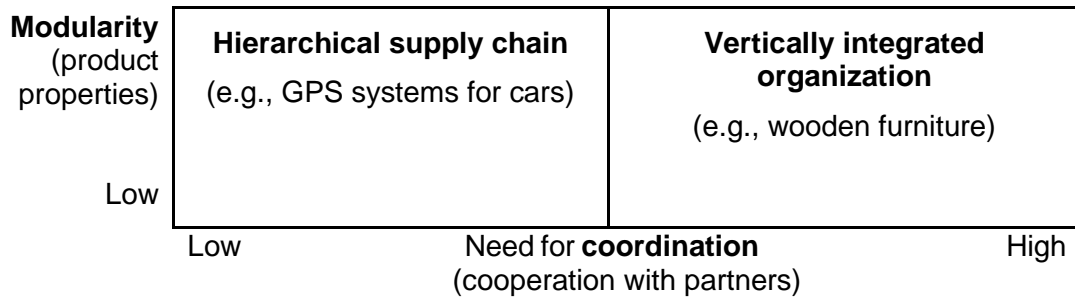


Figure 1 - Models of interaction in the external environment (Pidun et al., 2019)

A **business ecosystem** is a dynamic group of largely independent economic players that create products or services that together constitute a coherent solution (Pidun et al., 2019). Not every environment can be considered as an ecosystem. An ecosystem is characterized by the following elements: (i) a specific value proposition (the desired solution), (ii) a group of actors with different roles (producer, supplier, orchestrator, complementor, etc.).

Examples of business ecosystems:

- marketplaces that bring together numerous producers of products/services and customers (Amazon, Airbnb, Uber, Upwork, etc.);
- IT systems that integrate components and applications from multiple providers on a common platform (Microsoft Windows, Apple iOS, Android);
- offerings that integrate components from different players (for example, video games, e-readers, smart home systems, residential solar energy solutions, self-driving vehicles, 3D printing, IoT solutions);
- offerings that integrate services from different providers (for example, credit card systems, disease management platforms, smart farming or mining solutions).

Distinctive characteristics of the business ecosystem:

- **Modularity:** the components of the proposal are designed independently but function as a whole, they can be easily and flexibly combined and integrated.
- **Coordination:** ecosystems are not controlled hierarchically but there is a coordination mechanism through standards, rules, or processes.
- **Customization:** contributions of participants are adaptable to the ecosystem and mutually compatible.
- **Multilateralism:** relations between participants establish the complex configurations that cannot be decomposed into a set of bilateral interactions

There are two main types of business ecosystems:

- **solution ecosystems** bring together players who create a product/service by coordinating different participants (as smart home solutions, 3D printing, etc.)
- **transaction ecosystems** connect two-way market participants through a digital platform (such as eBay, Uber, or Upwork).

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The environment determines the features of your business model: "rules of the game", barriers and opportunities, strengths and weaknesses. Three areas have a direct impact on the efficiency of the business model (Fig.2):

- a marketplace, where we interact with the consumers, they give us the incoming cash flow,
- an industry where we organize the production process that requires funding (money from us),
- competition, where we compete with similar businesses.

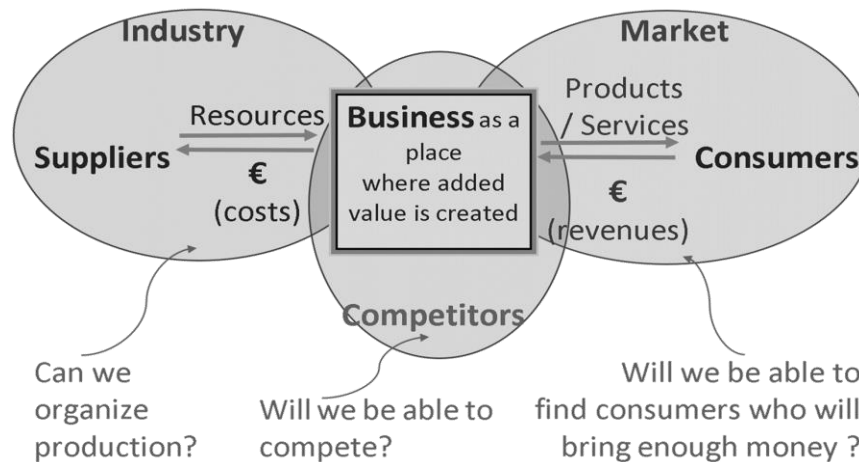
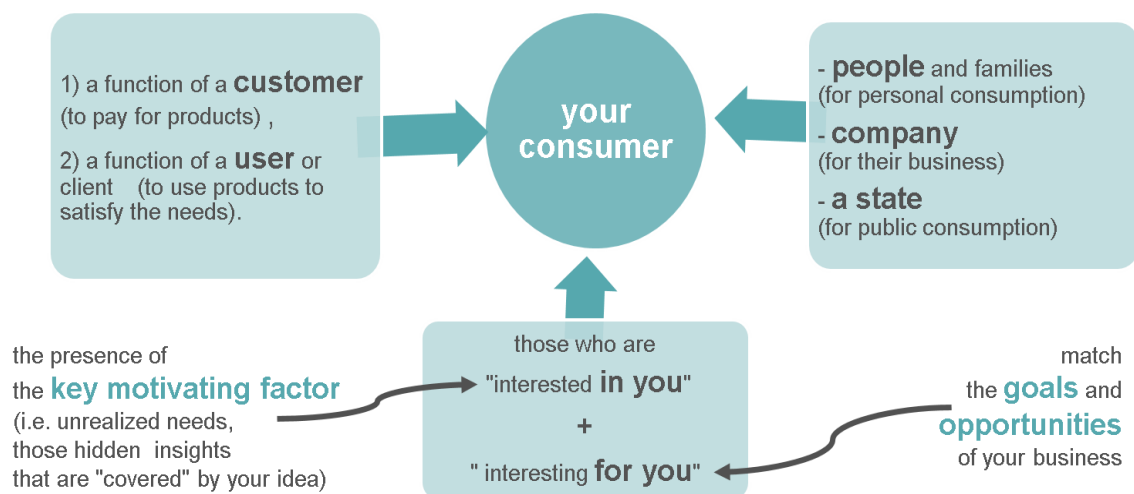


Figure 2 – Tasks for business in the external environment

Thus, our marketing task is to prove that we can: (i) find customers, (ii) organize production, and (iii) compete.

Consumer

The value of a business idea is determined by how much people need it. **Consumers** are the ones who buy and use goods. Fig. 3 describes the key features and types of consumers.



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Figure 3 – Definition and characteristics of “your consumer”

Consumers are a heterogeneous audience. You can deal with not one but several groups of consumers at the same time. It is important to identify and understand each group. The following question should concern you: “Why will these people buy my product / service?”

According to the theory of the rational behaviour, a person tries to maximize their own utility (benefit) but has limitations in resources and time (Fig. 4).

$$\begin{aligned}
 & \text{Utility} = \sum(\text{Desires}) \\
 & \sum(\text{Utilities of all goods}) \rightarrow \max \\
 & \text{Expenditures (Goods)} \leq \text{Budget} \\
 & \text{Time of Use (Goods)} \leq \text{“24/365”}
 \end{aligned}$$

Figure 4 – Principles of the rational consumer behaviour

A person will not buy your product just because they have money. You should find a "customer’s pain" that your solution can address (Blank, 2020). A customer’s pain point (or an unmet need) is not something obvious, it cannot be "chosen" or "assigned". Often it is an insight (that is, a hidden motive).

To find a customer's pain point, you need to step into customer's shoes. However, it is not necessary to live their life for this. There are two approaches for the study of your customer:

- qualitative research - a type of the "in-depth research" to gain insights into the deeper motives behind consumer behaviour. It allows to «extract» information about people`s biases that cannot be obtained by statistical analysis. It is done as a result of interviews, focus groups, usability testing, customer reviews, field studies.
- quantitative research – a type of the research that helps to understand what consumers do or how they behave. People`s behaviour is assessed with quantitative methods; information is well-structured and objective (information reliability and representativeness are here of great importance). However, this type of research does not provide insights into the reasons for customer’s behaviour. Surveys, experiments, and observations are used.

The context of consumer experience should always be considered. Schemes and maps can help with the visualization:

- Buyer`s Profile creation (Persona Creation)
- Impact Mapping
- Customer Journey Map creation, CJM

A **customer profile** (also called a buyer portrait, a consumer profile, a customer avatar, a segment profile) is a collective portrait of a person who chooses the product to solve their problem. Description of the customer is obtained not from brainstorming but from questionnaires, conversations with the audience and analysis of the feedback. It can be constructed as a table, a diagram and even a text (see appendix 6.1).

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Examples of the visualization of the buyer`s characteristics with the explanations and a tool to "play" with your own design is provided by Personix (see 3.3.2).

Persona Creation (or Buyer Persona card creation) can be your tool to describe your customer. An avatar with a name and a story should be invented. Then, typical image of the invented character`s should be placed on the card: images and citations that characterize this person (that is, the features of the customer: his social characteristics, lifestyle, behaviour, priorities and preferences). Find the online tools, guides and examples in 3.3.2.

Impact Mapping is a method that allows you to set business goals and connect them with the consumer. The method requires answers to the following questions: Why (definition of the specific business goals), Who (groups of consumers who play a role in the success or failure of the product to achieve the goals), How (how consumers can help you achieve your business goals), What (what features of your business solution will allow consumers creating impacts necessary for your business goals). As a result, graphs with customers` stories are built, i.e., ideas on how to translate insights into concrete offers. Find the online tools, guides and examples in 3.3.2.

Customer Journey Map (CJM) is a tool that allows to visualize the experience the consumers have when interacting with your product or service.

7 steps to creating a CJM are:

- Set a clear objective for the map.
- Define your personas and highlight target customers.
- Define stages (i.e., the steps that customers take when interacting with the business) and identify goals and actions for each.
- List out touchpoints (cases of customer`s interaction with the business) and processes that create them.
- Gather data and customer feedback.
- Determine pain points (moments in the customer's experience that caused frustration, emotional discomfort, irritation, etc) and points of friction.
- Identify areas for improvement.

Find the links to the online tools, guides and examples in 3.3.2.

Market

Having one customer guarantees one transaction with a one-time income. The market creates a repeatable sales process that gives cash flow. It is necessary to check whether the market is suitable for building a viable and scalable business.

Target market – a set of real and/or potential buyers (customers) of the product which is targeted by your business. The target market is not homogeneous, it consists of different segments.

A market segment (a target group, target audience, a key group of buyers) is a group of consumers (customers) reacting equally to the same set of incentives. To identify market segments the technique of segmentation is applied.

Segmentation is dividing the market into groups (segments) based on differences in needs and behaviour.

Steps of market segmentation:

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- Selecting criteria (for example, location, demographic, socio-economic indicators, psychological criteria, motivational factors, etc.).
- Dividing the market into segments.
- Checking that the segments meet the requirements of recognition, measurability, profitability, access to the distribution channels and protection from competition. Segmentation can be performed by one criterion, and iteratively by several. Find the explanations and examples in section 3.3.2.

For target segments business develops activity strategies: to provide better ways for entering the market, to define how and when to reach other segments, to understand which segments should be covered. Remember that each segment requires the development of a separate marketing kit (specific product and price policy, distribution channels and promotion strategies).

After having all the target segments, you will get an idea of your target market. Next, you need to describe the quantitative parameters and qualitative characteristics of your target market. Market size is the main quantitative metric of the market.

Market size (market volume) is the total amount of transactions (actual or potential) for a certain period at a specific market. Based on the market volume, you can make assumptions regarding the sales volume of your business. Additionally, market size indicates the possibility of business scaling. The definition of market size is always based on (i) statistical data, (ii) assumptions about market properties and consumers behaviour.

There are two approaches to the market size calculations:

- Top-down: Market size = \sum actual sales of all companies for the period.
- Bottom-up: Market size = \sum expected purchases by the target audience for the period.

TAM-SAM-SOM method (stands for different subsets of the market) is used to define the exact transactions that should be calculated:

- Total Addressable Market, TAM is an opportunity to receive income if 100% market share is reached (when the product / service is bought by everyone who can potentially buy it under the condition of maximum intensive use).
- Served Available Market, SAM is the share of TAM within your geographic reach that could be served by all similar products.
- Serviceable Obtainable Market, SOM is the share of SAM that can be captured by your business offer.

Since the business plan is developed for the future, it is important to describe the factors and trends of the market. We draw attention to two groups of arguments:

- what market trends support our idea;
- what market trends can harm our business and how we can minimize this impact.

To show compliance between the product and the market, you can use the technique of positioning. It includes the construction of a **Perceptual Map** (Positioning Map) - a two-dimensional X/Y matrix of the competing products. The coordinate axes correspond to a pair of the most important characteristics for the consumer. It makes

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sense to have several positioning maps if you have several target segments with fundamentally different motivating factors. Find the example in the appendix 6.2, links to the templates can be found in 3.3.2.

Industry

If the market is the place where you sell your product, the industry is the place where you create it. **An industry (or an economic sector)** refers to enterprises with similar activities which have: (i) similar technological processes, (ii) similar products, (iii) resources of the same type, and (iv) similar composition of the staff.

Industry characteristics include its structure, leading technologies and used resources, parameters (indicators of production volumes, capital intensity, etc.), "rules of the game" in the industry and prospects for the development (trends, dynamics).

Industry "rules of the game" are the conditions for the competitive interaction within the industry, which depend on:

- the number of companies producing similar products;
- the ability to impact on the market prices;
- the presence of non-price competition (i.e., competition regarding the quality of products, services, location, availability, etc.).

There are 4 industry models w.r.t. the "rules of the game" (see Appendix 6.3): Pure Competition, Monopolistic Competition, Oligopoly, Monopoly.

Your business will join either a monopolistic competition, an oligopoly, or a monopoly, since pure competition is a nonexistent ideal.

However, having pure competition option is necessary to show how your market would look if the industry had an infinite number of competitors. Decreasing the number of "players" in the industry according to the corresponding industry model leads to increasing the value of each player and growing the concentration of its market power. This makes the rules of the game change.

Once you understand which model best describes your work environment you are ready to describe your industry.

You can "play" w.r.t. any of three real models: in monopolistic competition - as an "equal player" and a competitor; and in oligopolies and monopolies - as a venture partner for giant companies. Your behavioural strategy may become your economic advantage or differentiation.

Porter's Five Forces model can be used to organize information about the industry. Threats and strengths in a particular industry are identified based on the study of five main components: the supplier power, the buyer power, the rivalry among existing competitors, the threat of substitute products or services, and the threat of new entrants. For explanations and examples see links in section 3.3.2.

Competition

Business success depends not only on the quality of your idea, your product, technology, organization of business processes. You should also be prepared to the fact that when doing business, we are dealing with a competitive, adversarial environment.

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Competition is a rivalry, a race for the consumer's money. Not only similar goods create competition but also other options for spending money.

The process of gathering and studying data about competitors and their products and customers is called **Competitive Intelligence Analysis** (Goria, 2017). To collect data about your competitors, you can use open data (websites, social networks, analyst reports, press releases, etc.) as well as special tools (Geekflare, 2022). It is recommended to properly structure the obtained data, for example, in the form of a **Competitive Intelligence Mind Map** (Buzan & Griffiths, 2013). Links to the templates can be found in 3.3.2.

Competitiveness is the ability of your offer to compete for the customer. Note that competitiveness is:

- a relative characteristic, not an absolute one, it is defined by comparison with analogues;
- a subjective characteristic, that is, it reflects the commitment of the customer (of a specific segment in a certain period of time).

You need to find someone to compare yourself to. The biggest threat in a competitive environment is posed by those players whose market niche is closest to yours.

Direct competitor is a company with the product that:

- seeks to address the same economic need;
- uses the same or similar technology.

A direct competitor is dangerous because of its similarity to you. The consumer, making the final choice "to whom to give money", will choose between you and your direct competitor. You should prove that you have a chance to survive in this struggle for the customer's money. If there is no direct competitor, describe the competitors closest to you according to the customer's needs.

Radar Chart for Competitive Analysis can be a good way to visualize your competitive advantages.

Steps to create the chart:

- Define the key competitive parameters and their measurement units (absolute estimates or relative - from 0% to 100%).
- Create a spider-like model where each ray is a separate criterion with its own measurement scale;
- Evaluate your own product and competitors according to each criterion and draw the corresponding dots in the chart (each competitor should be assigned its own color).
- Connect the dots of the same color and analyse the differences of the resulting area.

In 3.3.2 you can find the links to the correspondent tools.

To make the comparison more convincing, you can engage a quantitative assessment that will show your advantage. To search for quantitative arguments supporting your advantage you can use **The Competitive Matrix** (Appendix 6.4.1). Here, the assessment is based on the following assumptions:

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- The more the products "match" in terms of functionality, the stronger the competition between them. That's why the products of the closest direct competitor are chosen for the evaluation.
- Comparisons are made according to a set of product/service properties, the choice of the important ones depends on the consumer.
- Since product properties are of different value for the consumer, each parameter should be weighted according to its importance.

An example of the matrix calculations is given in Appendix 6.4.2.

The competitiveness of a product is determined by the objective characteristics of the product and its competitors. However, the judge in this competition ("your customer") makes only biased decisions. The competitive matrix allows us linking these conflicting reasons. And the most importantly - the matrix gives the justification (impartially and in terms of quantity) to your statements about the competitiveness in the market.

Exercises

Activities

How to work with information sources. Before you start.

Information for the description of the external environment is usually taken from open sources. Thus, the quality of the research depends on your search abilities and interpretation (analytical) skills.

A few tips in this regard:

- All the facts and figures must be confirmed by references to the source and date.
- The sources that justify your arguments should be relevant, that is, modern and actual.
- The sources of the information should be authoritative and acknowledged globally due to their credibility, objectivity and impartiality. Blogs are not authoritative sources even if they are written by opinion leaders. Look for the confirmation in the reports of international organizations (UN, Council of Europe, Eurostat etc), governments, internationally recognized consulting agencies (Gartner, Boston Consulting Group, McKinsey Company, Ernst & Young etc), professional or industry associations and publishers.
- During the Internet surfing you are dealing with algorithms. In order to expand the search results, you can play around with search words and phrases.
- be careful with information security rules. Remember that you will receive responses according to your Filter Bubbles (Hybrid Threats Glossary, 2021), try to change your usual settings and requests to go outside these bubbles.

There are three basic steps for the proper analysis of any element of the environment: (1) collect data, (2) analyse the data, (3) generate a report.

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To create a report, draw conclusions from the information received: think about what the numbers indicate; how this or that trend will help realize your idea, etc. Submit data in a systematized and generalized form, dilute the text with tables, graphs, diagrams. Find the right balance between visualization and document weight. Remember that a business plan is not a comic book but it doesn't have to be boring either. See an example of what a professional report looks like - Jacobson & Suleski, 2020.

Before writing, think about what type of model (Fig. 1) your environment can be attributed to. The same company in Open market conditions can be your direct competitor, in Vertically integrated organization conditions - your client, and in Business ecosystem conditions - your partner.

Activity 6.1 Customer analysis

Here you are to prove that you have your own customer ("Customer discovery"), i.e., show that a particular product solves a problem for a specific group of customers.

Collect customer data. Search, observe, mirror your customer, listen, look.

Try the following:

- Study typical search queries, find out what people are Googling; what advice is asked on the forums; what is being talked about in social media; what feedbacks are left on Google maps.
- Talk to: (i) sales teams - collect their questions, concerns, comments, etc.; (ii) customer support departments to find out what customers complain about.
- Read scientific papers especially the ones with a high impact factor, pay attention to sections "further research".
- Keep an eye on users: (i) stories sharing – we work "in the field", we watch how everything happens and record it; (ii) empathy interviewing – ask your user; (iii) pioneer view – we look at the product through the eyes of a 5-year-old child in order to understand the feelings of those who encounter the product for the first time.
- Use conversational artificial intelligence services to identify needs, e.g., ChatGPT.
- Refer to your own experience, this will help reveal specific insights

Analyse data. Record and process the obtained information:

- Articulate POV (Point of View) statements – brief descriptions of the problems (or needs) that have to be solved. Describe the context, note interesting findings.
- Perform stories sorting and grouping – identify the most relevant ideas, find common features, systematize.
- Search for analogues – analyse analogical or similar solutions, check them for shortcomings (what needs do they not address?).

Once you find unmet needs, you will understand who your customer is and why.

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Report: create a textual proof that there are people who will definitely buy your product. Do not forget to refer to research results, to describe real-world cases.

Show that:

- there are sources of consumers who have sufficient opportunities (have funds for purchase, access to the product, skills to use it, etc.) to consume the product;
- there are "free niches" among the needs of this group - unmet needs, insights;
- the product features can address the needs and requests of this particular group of the consumers.

For visualization, use one or more charts: build a Customer Profile (create a Persona), Impact Map and/or create a CJM - Customer Journey Map.

Activity 6.2 Market Analysis Report

The description of the market as a source of cash flow is also required. You should not make a market analysis per se but rather collect evidence for the "consumer validation". Your task is to prove that you have the target market.

Collect market data:

- Define your target segments w.r.t. the customer characteristics revealed by customer analysis (check them for compliance with the segmentation criteria).
- Check the resulting segments for differences in customer reactions: whether different pricing policies, different access channels, different promotion strategies are needed. If there are no differences, the segments can be integrated.
- As a result, you should get an idea of your target market. Outline the boundaries of this market (localization – geographic/virtual, consumer characteristics, product consumption conditions, etc.).
- Next, look for the information about the number and dynamics of the customers, about trends in their consumption patterns.

Analyse market data: determine TAM-SAM-SOM - market volume (don't forget to put the calculations and links in the appendices); build graphs or diagrams that will demonstrate the development of the market; create Perceptual Maps.

Write a short analysis report on the target market with the following elements:

- existing market features (market location, its characteristics, key differences and target segments),
- market trends,
- market metrics (market volume, market growth indicators, etc.)

As a rule, the report also contains Perceptual Maps and the "reference points" for your project (that is, your company's capabilities in terms of sales volume and forecast dynamics of sales volumes). N.B., the path of sales volume should change along the life cycle (at the beginning - small sales, which increase over time and reach their expected values).

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Activity 6.3 Industry Analysis Report

Analysis of the industry allows you to evaluate the technological landscape and the production environment in which the business will be created. Here you have to provide evidence regarding "industry validation": you have to prove that your idea can be implemented in production.

First of all, it is important to determine the industry in which you will work. Sometimes it can be difficult (especially if it is at the intersection of industries). Existing classifiers can help you to get oriented (see Industry classification in chapter 4 References). Your choice depends on your vision. But it will affect many elements of the business plan:

- the choice of industry determines the structure of costs (equipment, personnel, suppliers, licenses etc.),
- if you have chosen an industry, have described it, and the cost structure does not match it, this will cause the investor`s distrust. This is a signal to him either about you being incompetent, or about you cheating.

Collect industry data: define your industry; find authoritative resources related to this industry; find information (reports, reviews, interviews...) related to the industry development and give references. Look for the qualitative parameters (trends of development, new technologies, developments at the interface of technologies, etc.) and its quantitative metrics (volumes of production, average profit rate, cost structure, etc.)

Analyse industry data: Summarize the collected data and divide it into different topics; formulate the main points (i.e., global overview of the industry - characteristics, rules of the game...; dynamics and structure of production; technologies shaping the industry; peculiarities of industry regulation - standards, permitting procedures, etc.; promising trends and forecasts of development, etc.). Use useful tools to summarize the information obtained, such as SWOT, PESTEL, Porter's Five Forces Analysis.

Make a **small analytical report** on your industry as a logical story about the industry. Provide evidence that:

- the industry is developing,
- the technologies you use have a perspective.

You may also find the following report (Golovianko et al., 2022) useful where you can find information on the current state of technology, valuable references, a list of leaders, and more.

A good conclusion to this section will be a description of how you see your business in this industry. Industry analysis allows you to understand exactly what resources you need and where you can get them:

- make an integrated list of resources that you need (hardware and software, materials, personnel, access, etc.),
- find your group of suppliers under each type of resource,
- check how much access to suppliers is open to you, what are the conditions for cooperation with them.

A final description of resources and suppliers should be a convincing argument for your willingness to work in this industry.

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Activity 6.4 Competitive Analysis Report

This report aims at generating the evidence for "survival validation". You have to prove that your idea has advantages over competitors.

Collect the data about competitors: look for information about companies that satisfy similar needs and work with similar technologies; also look for information about their products (functionality, characteristics, specifics of use, price, promotion, etc.); use tips and approaches of the Competitive Intelligence Analysis.

Analyse the data about competitors: systematize this information, honestly describe your competitors (use diagrams, tables and other data visualization methods). It makes no sense to hide the strengths of competitors, it will look like ignorance. Indicate which specific niches the competitors have not covered yet, which needs have been neglected. Find the nearest competitors for comparison.

Make a **small analytical report**, provide the following information in it. First, characterize the competitive environment, indicate companies (products) and technologies that will satisfy similar needs; indicate those companies that work with similar technologies; give a brief description of them, if necessary – create a Competitive Intelligence Mind Map. Second, prove that your offer has competitive advantages - show in which positions, important for consumers, you have better solutions. Use the Radar Chart method to visualize competitive advantages and the Competitive Matrix for quantitative assessment. Draw conclusions focused on your strong competitive advantages.

Self-assessment questions

No	Question: Is it correct to say that:	Correct answer
1	... every business must adapt to the external environment.	True
2	... every business exists in its own ecosystem.	False
3	... the consumer is only a person who uses the product.	False
4	... you can study customers without moving away from your computer.	True
5	... Customer Journey Map – is a method of researching routes of customers in large shopping malls	False
6	... enterprises with similar technologies compose the market size	False
7	... in the conditions of a monopoly, a startup has no chance for success.	False
8	... competitive analysis is impossible for innovative startups because they create new technologies.	False
9	... The Competitive Matrix is needed to show how many times our idea is better than the competitor's product.	True

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10 ... blogs written by recognized opinion leaders are suitable for arguing assertions in a business plan	False
---	-------

Examination questions

1. Why analyse the external environment when creating a business plan?
2. How should business ecosystem theory be used to describe your idea?
3. Who is the customer, what are their characteristics and what role does customer play in the success of your idea?
4. What are the methods for analysis and description of the customer in a business plan?
5. Why should startups study the market?
6. How can you get information about the market?
7. What are the metrics for quantifying the market?
8. What should an industry report include to support your idea?
9. What metrics of your project should be specified in the market and industry description?
10. What aspects of working with information need to be considered so that your analytics is evidential?

Further readings and recommendations

Further readings

Adzic, G., & Bisset, M. (2012). *Impact Mapping: Making a big impact with software products and projects*. Provoking Thoughts Limited. 86 p.

Blank, S. (2020). *The four steps to the epiphany: successful strategies for products that win*. John Wiley & Sons. 283 p.

Buzan, T., & Griffiths, C. (2013). *Mind Maps for Business 2nd edn: Using the ultimate thinking tool to revolutionise how you work*. Pearson UK.

Goria, S. (2017). *Methods and tools for creative competitive intelligence*. John Wiley & Sons.

Pidun, U., Reeves, M., & Schüssler, M. (2019). Do you need a business ecosystem. *BCG Henderson Institute*, 11.

Web links

Ayoa <https://www.ayoa.com/>

Modern site on Mind mapping (a mind map — diagram that shows how ideas are related to each other), which has a lot of useful information and examples of non-standard patterns, for example, for Porter's Five Forces <https://www.ayoa.com/ourblog/mind-map-on-industries-analysis-reduce-business-risk/>

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Business Strategy Hub <https://bstrategyhub.com>

This is a website that's dedicated to business strategies and its analysis, including:

- PESTLE Analysis – explanations: <https://bstrategyhub.com/grab-your-mortar-pestle-analysis-explained/>
- SWOT analysis for Toyota: <https://bstrategyhub.com/toyota-swot-analysis/>
- SWOT analysis for Netflix: <https://bstrategyhub.com/swot-analysis-of-netflix-2019-netflix-swot-analysis/>
- SWOT analysis for IBM: <https://bstrategyhub.com/ibm-swot-analysis/>
- Segmentation, Targeting & Positioning (STP) – explanations: <https://research-methodology.net/theory/marketing/segmentation-targeting-positioning-stp>
- McDonalds STP <https://research-methodology.net/mcdonalds-segmentation-targeting-positioning/>
- Uber STP <https://research-methodology.net/uber-segmentation-targeting-and-positioning/>
- Samsung STP <https://research-methodology.net/samsung-segmentation-targeting-positioning-multi-segment-imitative-anticipatory/>

Creately <https://creately.com/guides/how-to-do-a-competitive-analysis/>

Company sells own templates for visuals and diagrams. But you can get several templates for free for one day (read the section Pricing). Here you can find (or even use) templates for SWOT Analysis, PEST Analysis, Porter's Five Forces Analysis, Perceptual Map, Competitive Intelligence Mind Map, Radar Chart for Competitive Analysis.

PDFAgile <https://www.pdfagile.com>

A tool for the work with PDF documents. However, it also provides explanations, visualizations, and specific cases as examples (links to the cases are active and redirect to the studies themselves), such as:

- Porter's Five Forces (explanation, visualization and examples with active links): <https://www.pdfagile.com/blog/best-porter-s-5-forces-examples-for-students>
- PESTLE Analysis Examples for Small Businesses (explanation, visualization, examples): <https://www.pdfagile.com/blog/best-10-pestle-analysis-examples-for-small-businesses>
- SWOT analysis for small business: <https://www.pdfagile.com/blog/best-10-swot-analysis-examples-for-small-businesses>
- SWOT Analysis of Louis Vuitton <https://www.pdfagile.com/blog/swot-analysis-of-louis-vuitton>
- and even SWOT analysis examples... for students (!) which can help students find the right direction for them to take <https://www.pdfagile.com/blog/best-20-swot-analysis-examples-for-students>

Personicx <http://www.personicx.co.uk/>

provides key characteristics of the UK consumer market audience for sales of consumer goods

Smaply <https://www.smaply.com/tools/journey-maps>

Customer journey, Persona: mapping tools

UXPressia <https://uxpressia.com/>

Customer Journey Map, Persona Creation, Impact Map: online tools, free Guides, examples

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Visual Paradigm (Free for educational use) <https://online.visual-paradigm.com/> Contains a huge number of useful tools <https://online.visual-paradigm.com/diagrams/features/diagram-templates/>, there is a tool-board for creating SWOT Analysis, PEST Analysis, Porter’s Five Forces Analysis, Perceptual Map, MindMap, Customer journey map etc. For example:

- For Customer journey mapping: examples and online tool <https://online.visual-paradigm.com/diagrams/features/customer-journey-mapping-tool/>
- For Radar Chart for Competitor Analysis <https://online.visual-paradigm.com/knowledge/data-visualization/radar-chart-for-competitor-analysis/>

References

Enochson, H. (2022) PESTLE Analysis Examples. *OnStrategy*. Available at: <https://onstrategyhq.com/resources/pestle-analysis-examples/>

Geekflare (2022) 8 Essential and Free Competitive Intelligence Tools. Available at: <https://geekflare.com/competitive-intelligence-tools/>

Hybrid Threats Glossary: Filter Bubbles (2021). Available at: <https://warn-erasmus.eu/glossary/bulbashki-filtriv/>

Jacobson, S., & Suleski, J. (2020). Hype Cycle for Manufacturing Operations Strategy. Gartner, 83p. Available at: <https://www.optessa.com/wp-content/uploads/2021/04/Gartner-Hype-Cycle-August-2020-with-Optessa.pdf>

Industry classification (2023) Wikipedia. Available at: https://en.wikipedia.org/wiki/Industry_classification

Golovianko, M., Gryshko, S., Titova, L., & Filatov, V. (2022). Good practices of Industry 4.0 in Ukraine. 38p.

Applications

Examples of customers descriptions

Example 6.1.1 – Description of a buyer in the format of table

Criteria	Innovator Profile	Early Adopter Profile
motivation factor	fear of missing out	be in trend
demographic factor	20-30 years, any sex	25-45 years, any sex
geographic factor	living in megacities, EU	living in urban areas, travellers, EU
psychographic factor	tend to all new	tend to comfort
behavioural factor	impulsive, active life position	mobility, responsibility, active life position

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Example 6.1.2 – Description of a buyer in the textual format

We identified two main segments and a secondary segment of potential customers.

The first segment includes sportsmen and sportswomen. Their interest is to pay attention to their line and be accompanied in their diet, alternating between diets and weight gain.

The second segment includes overweight people, men or women. Their interest is to pay attention to their line and follow different phases of diet.

We are also planning **the third segment** for curious people who want to try our application.

To facilitate the diffusion of our application we have defined three customer profiles.

- The first profile, the end customer, athletes, overweight people, people with allergies and people who want only to eat healthy without any particular problem but just concerned about the composition of food.
- The second, the prescribers they allow to open new channels of diffusion, by advising our application. In this profile we find our end users who are our best ambassadors, health stores, doctors, gyms, and positive reviews on our application.
- The third is the buyers, it's companies that can sell our applications, sports shop, diet shop and hospitals.

Example 6.1.3 – Case-based descriptions of the buyers

Typical user, sportsman

Tod, 24-year-old sportsman. To practice his favourite sport running, Tod needs a precise caloric intake, depending on the season of year. Our app allows him to know what the calorie value of his food is and additionally to know if it is good or not for him.

Typical user, overweight person

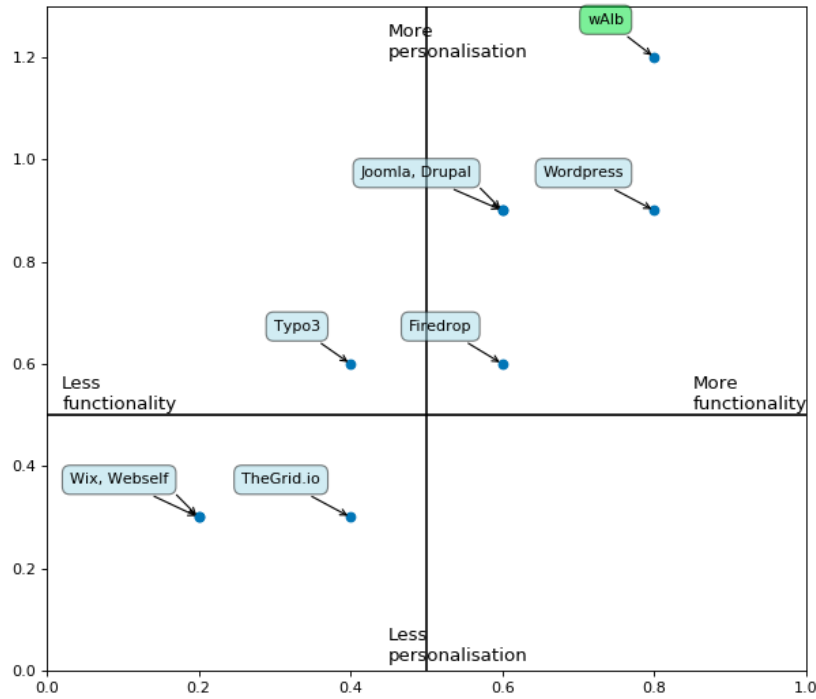
Mikael, a 32-year-old overweight person, he is interested about losing weight to protect his health. Our app accompanies him to pay attention to what he buys and encourages him by coaching him to eat healthy.

A 48-year-old mother of three children, aged of 8 to 15, concerned about the well-being of her children, worried about the lack of information and the complexity of food labels. Our app will help her in a quick and easy way to translate the complex labels of industries and bring them to a healthy life

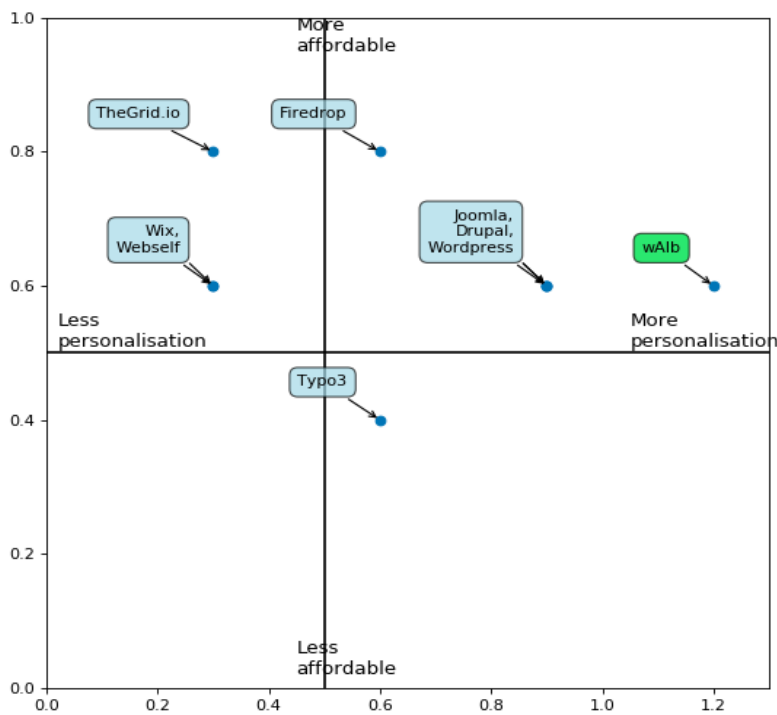
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An example of the Positioning Map for start-up wAlb



a) customer appreciates convenience



b) customer saves money

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Industry Models

Characteristics of economic sectors	“Rules of the game”			
	Pure Competition	Imperfect competition		
		Monopolistic Competition	Oligopoly	Monopoly
Number of Sellers	Infinitely large	A lot of	Several large (+ may be a lot of minors)	One industry-forming (+ may be a lot of minor)
Market price control	There is not	There is a small	The price space is wide due to production capabilities	Maximum control but within the framework of supply and demand
Product characteristics	Unified product	Differentiated product	Differentiated or unified product	Unique
Conditions for entry into the industry	No barriers	Some barriers but entrance isn't difficult	The entrance is blocked (economic, financial, technological, property barriers)	
non-price competition	There is not	Typical the main reserve for increasing sales	There is but price competition prevails	Not typical

An example of a Competitive Matrix

Table 6.4.1 – Template of a Competitive Matrix

№	Parameters	Unit	Value		Are we better or worse? How much? (col.4 / col.5, or col.5 / col.4)	The importance of the parameter (from 0 till 1)	Weighted ratio (col.6 x col.7)
			Your goods	Goods of competitor			
1	2	3	4	5	6	7	8
Total						1,0	Σ

Table 6.4.2 – Example of calculation of a Competitive Matrix

№	Parameters	Unit	Value		Are we better or worse? How much? (col.4 / col.5, or col.5 / col.4)	The importance of the parameter (from 0 till 1)	Weighted ratio (col.6 x col.7)
			Nissan Leaf	Tesla Model S			
1	2	3	4	5	6	7	8

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1	Battery capacity	kWh	30	75	0,4 (= 30 / 75)	0,05	0,02
2	EPA estimated range	km	180	400	0,45 (= 180 / 400)	0,1	0,045
3	Max. engine power	hp	109	315	0,35 (= 109 / 315)	0,05	0,0175
4	Battery Charging from alert to 100%	hr	8	30	3,75 (= 30 / 8)	0,1	0,375
5	Driven wheels	Points	2	5	0,4 (= 2 / 5)	0,1	0,04
6	Price	€	25 200	81 700	3,24 (= 81,7 / 25,2)	0,6	1,94
Total						1,0	2,437

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Unit 7: Financial analysis

Learning outcomes of the unit

1. Students can translate business ideas into financial projections.
2. Students can make financial diagnostics of the future company, identify its strengths and weaknesses, and find solutions to increase the former and eliminate the latter.
3. Students can find sources of funding for innovations and create financial offers for investors.
- 4.

Financial Statements

A financial mechanism refers to the way business assets are generated and allocated. The smooth functioning of this mechanism relies on maintaining a balance of three elements, each characterized by a separate financial form:

- The balance sheet outlines the assets available to the business, and their sources.
- The income statement evaluates the financial performance of the enterprise, indicating whether it has made an income or incurred a loss.
- The statement of cash flow shows the flow of money in and out of the business.

It is recommended that such statements be projected for a period of 5 years and describe the business's growth in terms of financial figures.

Balance Sheet

The balance sheet is a financial report that shows the financial position of a company at a specific date, indicating its assets, liabilities, and stockholders' or owner's equity. The term "balance" implies that every resource must have a source of origin: either from the company's own operations or from external sources, such as, investors or lenders:

$$\text{assets} = \text{liabilities} + \text{stockholders' equity} \quad (1)$$

Assets refer to all the resources owned by a company including the balance sheet items from Fig.1 (for the concepts definition see the glossary in appendix 6.1.1)

Current assets refer to a category of tangible, intangible and monetary resources that business consumes, replaces or converts into cash within a year. In startups, they most often appear in the form of:

- Inventory (if the technology involves a material flow of resources)
- Accounts Receivable. The amount depends on the number of days given to customers to pay for goods or services. A longer payment period makes the amount larger. This period is at least 1-3 days (making payments in the banking system).
- Cash and cash equivalents.

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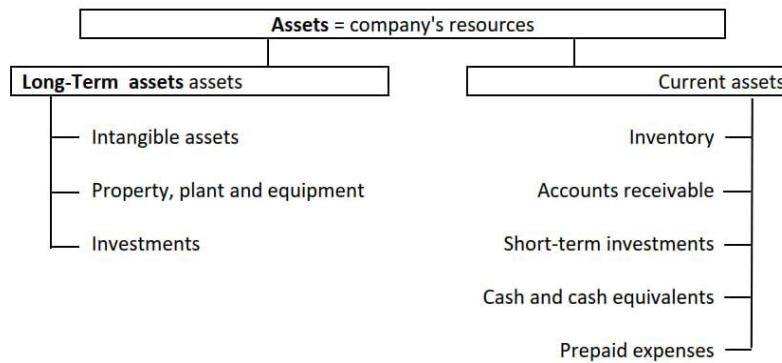


Figure 1 – Structure of the company’s assets

Long-term assets (tangible, intangible, monetary) of a company are used for more than one year. Typical long-term assets for startups include:

- **Property, plant and equipment - net:** dependent on the book value of non-current tangible assets (fixed assets), calculated as follows:

$$\text{Asset's Book Value} = \text{Asset's Cost} - \text{Accumulated Depreciation} \quad (2)$$

- **Intangible assets** (this refers to the assets that do not have a physical or monetary form, their value is calculated as follows: initial cost minus depreciation).

An example of the asset section of the balance sheet is given in Appendix 6.2 (Table 6.1).

Another part of the balance sheet reports the sources of assets including liabilities and stockholders' equity (see Fig. 2).

Liabilities refer to the amount of all the company's debts. In other words, this is "other people's" money that you temporarily use in your business.

Current (short-term) liabilities are debts that are due within a year. They consist of many components which are usually non-applicable for a startup. But **accounts payable** (debt for goods or services received) should be reported. The amount depends on the payment terms offered by suppliers. A longer payment period makes the amount of accounts payable bigger.

If a loan is planned in the business plan, it should be reflected:

- either as current liabilities (short-term loans payable or the current portion of long-term debt);
- or as long-term liabilities (that portion of a long-term loan that does not need to be repaid within a year).

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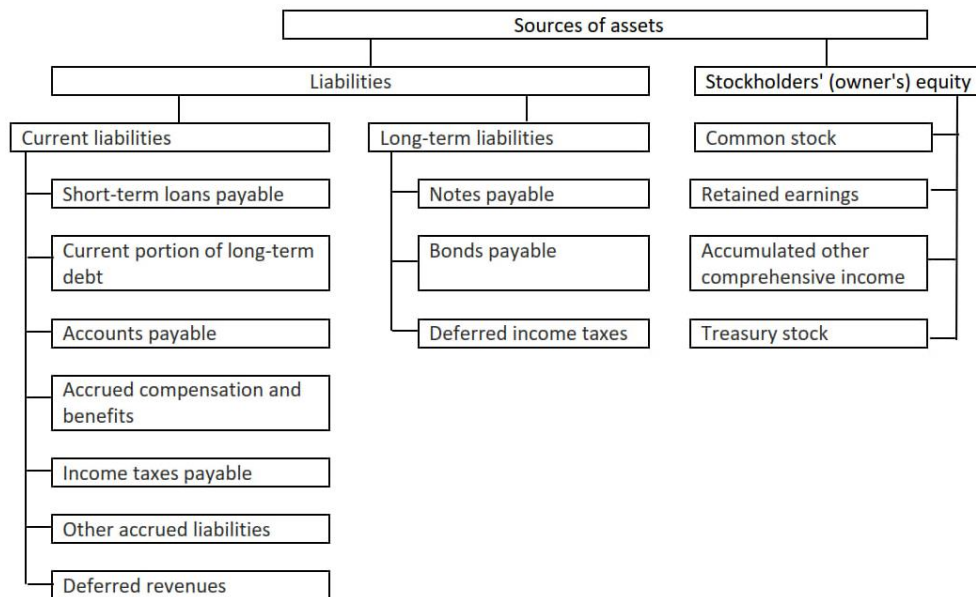


Figure 2 – Structure of the sources of assets

Stockholders' (owner's) equity refers to the company's own capital, which is created by contributions from the founders (for sole proprietorship it is called owner's equity, for corporation - stockholders' equity). It is more common to create a corporation.

Stockholders' equity includes:

- a permanent part - the amount of the business founders` contribution when starting a business (common stock),
- a variable part - accumulated income since the foundation (retained earnings).

An example of the "liabilities and stockholders' equity" section can be found in Appendix 6.2 (Table 6.2). Total liabilities and stockholders' equity must be equal to total assets. The increasing value of these indicators is a sign of business development and improved capabilities.

Statement of income

The income statement sheet contains information about the company's revenue, expenses, and the results of the company's activities (incomes or losses) for the period. The basic principle is as follows: accrued income is added, accrued expenses are subtracted. The term "accrued" means that the report is prepared according to the accrual method of accounting.

The logic of the income statement is shown in Fig. 3, while the main concepts are explained in the glossary (Appendix 6.1.2).

The resulting figure is calculated in stages, which allow you to see the reasons that affect it.

First, the results of operational activity are defined. **Operating income** indicates the efficiency of using the company's assets and helps to eliminate unnecessary **operating expenses**.

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Next, **non-operating income** is added to this result. For a startup, this section may not be relevant at all, but it becomes important if the company plans to attract a loan or scale the business quickly.

The **resulting net income** characterizes the ability to generate capital gains for the company and shareholders.

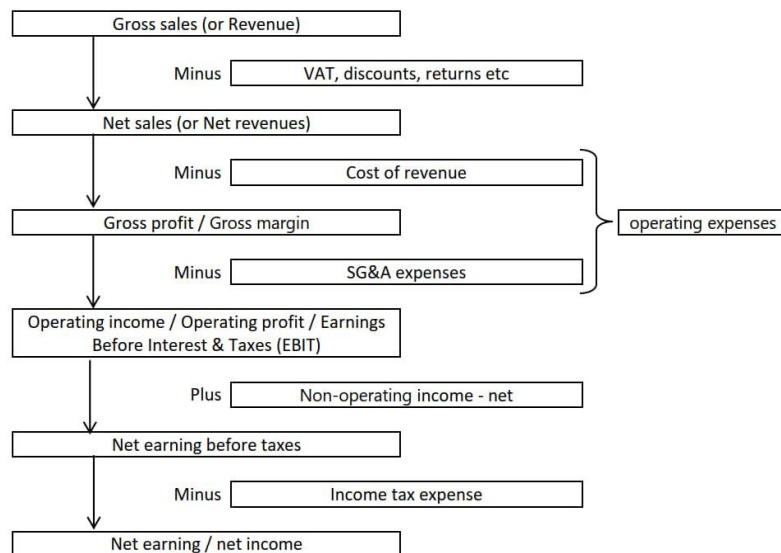


Figure 3 – The logic of building The income statement

Statement of cash flows (SCF)

However, Income Statement does not provide information about the available money in the company. It may happen that the company received crazy net income but has no money to pay even small debts. The thing is that income is determined by accrued income and expenses and not by the amount of cash that flows in and flows out of the company.

The statement of cash flows (or SCF) provides information on the reasons and amounts of changes in the company's cash flows. The general principle of SCF building is that the accrued indicators calculated in the Income Statement are converted into a monetary amount (Fig. 4).

SCF is composed of 3 sections: cash flows from operating activities, cash flows from investing activities, cash flows from financing activities.

Pay attention to the fact that investors prefer companies that generate positive cash flows from operating activities and not through investment and financial activities. For more details, see the glossary (Appendix 6.1.3).

The report ends with the test: increase / decrease of cash during the year is added to the amount of cash at the beginning of the year. The result should be the amount of cash at the end of the year. The test is as follows: this value must be equal to the amount of money cash in the assets of the company's balance sheet. The Appendices (Table 6.4) contain an example of SCF where the cash balance at the end of the period

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is \$19,165. The same figure is in the row "Cash and cash equivalents" of this company's balance sheet (Table 6.1).

Understanding cash inflows and outflows is important for managing a company's financial status. And this is crucial for startups, since predicting SCF allows identifying moments when monetary assets are getting insufficient, as well as getting the amount of the shortage. This information is basic for the financial offer of your idea.

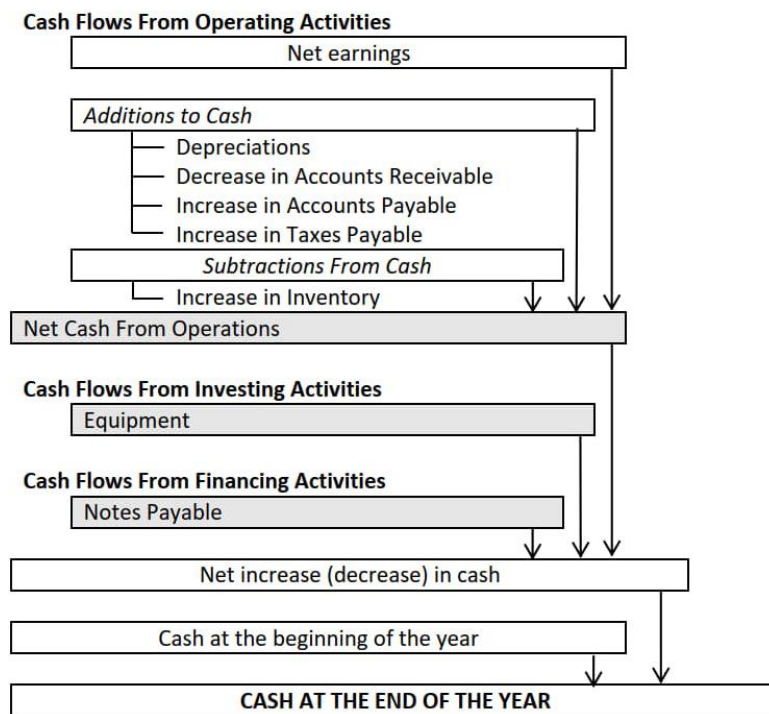


Figure 4 – The logic of building The Statement of Cash Flows

Financial Ratios

The ratios of financial indicators are needed for an express diagnosis of the strength, stability, and efficiency of a business, they help to compare it with other companies in the industry. The main topics of the diagnosis are (1) comparison of current assets and current liabilities, (2) analysis of the structure of liabilities and equity, (3) analysis of the effectiveness of the assets involved, and (4) analysis of the assets` turnover.

The comparison of current assets and current liabilities plays an important role in diagnosing the level of stress in a business. If the company does not have "quick" resources to pay off its short-term debts, it can lead to insolvency, bankruptcy, and the capture of your business by other players. The comparison is done with help of mathematical difference (then we are dealing with Working Capital) or through mathematical division (then liquidity analysis is performed).

Working Capital is the amount of the own financial assets for business scaling that remains in the company even after all debts are paid:

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$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities.} \quad (3)$$

Liquidity characterizes the speed of company's ability to convert its current assets to cash in order to pay its current liabilities in time:

$$\text{Current Ratio} = \text{Current Assets} / \text{Current Liabilities} \quad (4)$$

Liquidity can also be analyzed by the separate components of the current assets. For example, the Acid-test Ratio indicates the ability to repay current obligations in a critical situation:

$$\text{Acid-test Ratio} = (\text{Cash} + \text{Accounts Receivables} + \text{Short-Term Investments}) / \text{Current Liabilities}$$

The greater the asset's liquidity is, the faster it turns into money (thereby reducing the stress level). However, at the same time, the asset's profitability also decreases. A perfectly liquid asset (money) has zero yield. It is important to find a balance between liquidity and asset efficiency in a business plan.

Another topic for diagnosis refers to the **analysis of the structure of the funding sources for a business**. It is related to the search for the optimal ratio between liabilities ("other people's money") and equity ("our money"). Loan funds allow you to significantly increase the volume of operations without having sufficient equity capital for this (Financial Leverage effect). Moreover, the cost of the borrowed funds is lower than the cost of the equity capital raising. Excessive debts cause risks for the company's management and impacts decision-making independence.

The following tools are used for this balance calculation.

The Financial Autonomy Ratio characterizes the company's ability not to depend on "other people's" money for achieving its goals.

$$\text{The Financial Autonomy Ratio} = \text{Total Stockholders' Equity} / \text{Total Assets} \quad (5)$$

The Debt-To-Equity Ratio (D/E Ratio) is an indicator of a company's capacity to raise funds through new debt:

$$\text{Debt-To-Equity Ratio} = \text{Total Liabilities} / \text{Total Stockholders' Equity} \quad (6)$$

Debt-To-Capital Ratio (D/C Ratio) is an indicator of financial leverage that reflects the company's overall investment risk:

$$\begin{aligned} \text{Debt-To-Capital Ratio} &= \text{Total Liabilities} / \text{Total Assets} = \\ &= \text{Total Liabilities} / (\text{Total Liabilities} + \text{Total Stockholders' Equity}) \end{aligned} \quad (7)$$

A business plan is incomplete without an efficiency analysis, which shows whether the company can generate sufficient cash flow. It is done by the comparison of the assets planned to attract to the business with the forecasted results. There are several indicators of the business operations' efficiency. They are known as profitability indicators.

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Gross Margin characterizes the efficiency of the main activity by finding the relation between the prices for the product (through net sales) and its cost (included in gross profit):

$$\text{Gross Margin} = \text{Gross Profit} / \text{Net Sales} \quad (8)$$

The operating margin is an indicator that measures the efficiency of all operational activities. It shows how effectively a company converts sales into profit and is also known as the Return on Sales (ROS) ratio:

$$\text{Operating Margin} = \text{EBIT} / \text{Net Sales} \quad (9)$$

Another group of indicators show the efficiency of capital attraction. For example, the *Return on Assets (ROA)* ratio indicates the income generated by all assets involved in the business:

$$\text{Return on Assets} = \text{Net Income} / \text{Total Assets} \quad (10)$$

Return on Equity (ROE) is relevant to the investors who you are going to invite into your business. This ratio allows them to see the efficiency of raising equity capital in your business and compare your offer with other ones.

$$\text{Return on Equity} = \text{Net Income} / \text{Total Stockholders' Equity} \quad (11)$$

Another powerful analytical tool for efficiency analysis is the *Break-even Point (BEP)* calculation. The main task is to determine the level of production which allows the company to start making profits:

$$\text{Break-even Point (units)} = \text{Fixed Costs} / (\text{Sales Price per Unit} - \text{Variable Cost per Unit}) \quad (12)$$

Potential investors want to know not only the amount of profit on their investment, but also the timeframe when they receive it back. Therefore, *the BEP ratio* is an essential component of any business plan.

In addition, analyzing the speed at which company's assets move through its operational activities and generate revenue is crucial for the financial model diagnosis too. This analysis involves examining *activity ratios*, such as, the annual turnover generated by a given amount of assets invested:

$$\text{Total Assets Turnover Ratio} = \text{Net Sales} / \text{Total Assets} \quad (13)$$

It is important to calculate activity ratios for different types of assets. For example, the Accounts Receivable Turnover Ratio measures the speed of receiving money from the company's customers:

$$\text{Accounts Receivable Turnover Ratio} = \text{Net Sales} / \text{Accounts Receivable} \quad (14)$$

It makes sense to calculate activity ratios as indicators in days. This will clearly demonstrate how many days the resources are in one form or another. For example, the Average Collection Period (CP) shows the average number of days needed to

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convert Accounts Receivable into money (that is, how many days it takes on average to collect customer debt):

$$\text{Average CP} = (\text{Accounts Receivable} / \text{Net Sales}) \times \text{Number of Days in a year} \quad (15)$$

Financial diagnosis can be done in different levels of detail, allowing businesses to pinpoint strengths and weaknesses in their financial models and implement necessary improvements. Strong financial ratios can be particularly attractive to investors, making a project stand out.

Funding

Securing monetary assets is a major challenge when starting a new venture. To finance their projects, entrepreneurs need to attract investors who share their vision. However, the specific requirements for attracting financing may vary depending on the stage of the business life cycle, as illustrated in Figure 5.

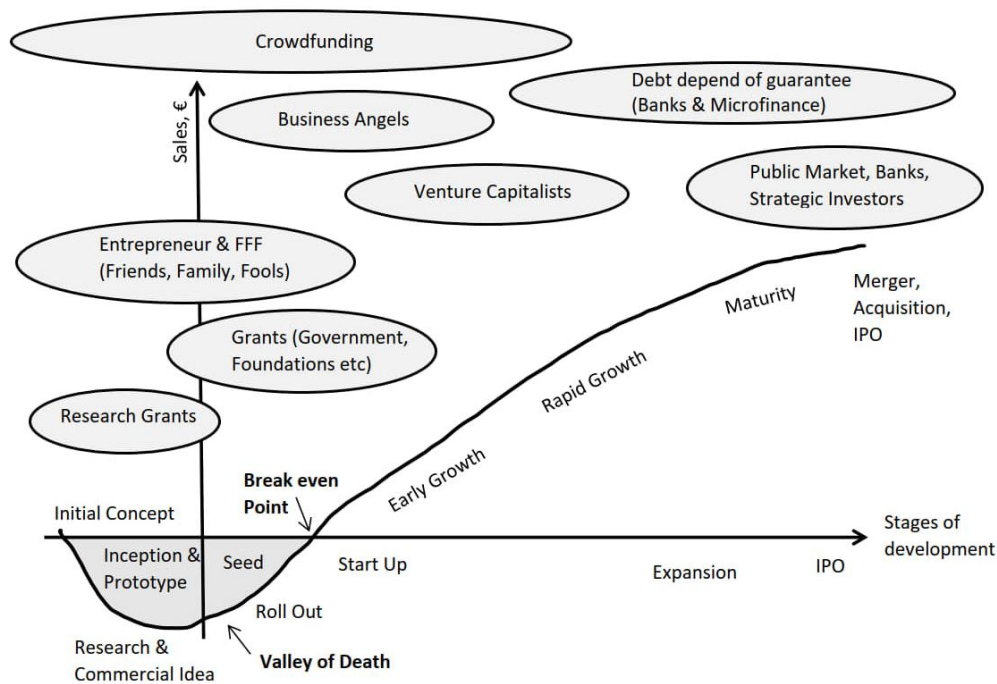


Figure 5 - Venture financing lifecycle (based on materials of Lasrado, 2013)

There are three fundamentally different sources of funding:

- "Money for an idea"
- "Money for profits"
- "Money for interest"

The term "money for an idea" refers to funding that is provided to support innovative or useful ideas, whether for personal or public benefit. This funding is often in the form

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of grants for research, prototype development, or other stages of idea implementation. Sometimes, the funding comes from the founders' own resources, as well as from friends, family, or others who believe in the idea and are willing to take risks. In this context, the focus is not on generating profit, but on realizing the potential of the idea.

At the initial stages of a project it is the only way to attract money, since bank loans, market investments, or traditional credit are unavailable. This is because the risk at this stage is very high, and there are no assets or sales to guarantee the return of the investment. Instead, many startups rely on grants and personal resources, such as savings and support from friends and family. While these sources may not provide substantial amounts of funding, they can be enough to help finalize the idea and bring it to the next level. Ultimately, this type of financing may be the only option available for early-stage projects that lack the track record or collateral needed to secure larger investments.

"Money for profits" refers to the process of attracting investors to participate in a company's capital. This funding method is commonly used by startups, who may have already received initial validation of their idea through product testing or early sales but lack sufficient assets to secure a loan. To obtain financing, founders must seek out venture capitalists who recognize the high-growth potential of the idea and are willing to invest money in exchange for a share in the company's ownership.

Since these early-stage investments carry a high degree of risk, it is not uncommon for investors to request a large share of the company, sometimes as much as 70-90%. This is considered an acceptable trade-off, given the potential rewards and the risks involved. By securing "money for profits," startups can access the resources they need to scale up their operations and realize their full potential.

Business angels and venture capital funds can combine the principles of investment by offering financing for a small percentage of the company's ownership, typically 30-50%. Angel investors often provide support for startups out of a desire to help promote new ideas, with the expectation that at least 5-10% of projects will succeed.

Crowdfunding is another source of funding that relies on the power of networks and the wisdom of the crowd. By tapping into a community of supporters who share an interest in a particular idea, entrepreneurs can bypass traditional financial requirements and avoid bureaucracy. However, this approach can also create challenges, including the need to protect intellectual property and defend against competitors.

"Money for interest" refers to borrowing funds, such as through a bank loan, which typically offers lower interest rates than investor financing and must be repaid within a specified timeframe. This type of financing is available to companies with a solid business history and property that can be used as collateral for loan repayment. It is advisable to consider this option no earlier than the third year of operation, especially when scaling up activities is necessary.

The life cycle of a successful venture business typically involves transitioning to a regular business structure through various financial instruments, including Buy Out or Buy Ins, replacement financing, merger, acquisition, or IPO (Initial Public Offering).

Regardless of the funding source, a well-crafted business plan is essential for attracting investors.

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Exercises

Activities

The business plan should include financial projections for at least five years, with monthly breakdowns for the first one to two years. Creating a financial model involves several stages and requires working with tables. Although it's recommended to use existing templates, it's important to be cautious as many of them are demos and don't provide the level of detail that investors require. In section 3.3.2, we provide a template that is practical and can help non-financial professionals create a comprehensive financial document.

Step 1 - Revenue Projections: estimate (i) the sales volume for each product per year (number of units) and (ii) the unit price (price per unit or fee per customer). The total revenue is calculated according to formula (17) in Appendix 6.1.2. Distribute annual revenue by months and quarters according to the logic of the business life cycle. As a result, Revenues by Months & Quarters are projected.

Step 2 - Property and Equipment: report the amount and purchase periods of long-term assets. All assets are grouped based on (i) their role in the business (COGS or SG&A) and (ii) useful life. We then calculate the annual depreciation for each type of long-term asset per year. This information is used to determine the annual amounts of Gross Asset Value, Accumulated Depreciation, and Net Property and Equipment.

Step 3 - Personnel: create a Staffing Table for separate groups for COGS-personnel and SG&A-personnel. For each position, we record (i) the number of employees and (ii) their salary per man-month (including social insurance). We calculate the annual Salary expenses for each position and add the benefits calculation. By adding the Total salary and Total Benefits, we obtain the Total Compensation for all personnel for each year.

Step 4 - Cost of Revenues (COGS): add the costs of creating products/services, such as Material Costs, Facility costs, and System Costs to the already defined costs (Labor Costs and Depreciation). The structure and number of expenses depend on the technologies used, and their list may differ significantly. Add up the annual amounts of all these costs to obtain the Total Cost of Revenues for each year.

Step 5 - Other Operating Expenses (SG&A): divide all costs into three groups - Sales and Marketing, Research and Development, and General and Administration. To the already calculated costs (Labor Costs and Depreciation), add the costs of organizing these activities (advertising, maintaining an online store, etc.). As a result, calculate the annual amounts of Total Operating Expenses.

Step 6 – Extraordinary Expenses: in addition to regular operating expenses, there may be non-systematic costs associated with setting up or scaling a business, such as obtaining licenses, concluding contracts, or relocating. These need to be recorded and factored into the financial model at the appropriate periods.

Step 7 – Taxes: tax payments can have a significant impact on a company's financial health. Therefore, calculate the annual amount of payments for taxes with respect to the chosen taxation system.

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Step 8 – Units of Working Capital: first, put in the number of days of assets being in the form of (i) Accounts Receivable, (ii) Inventory (if any), (iii) Accounts Payable. Next, add the annual amounts of money withdrawn from turnover in order to pay for each of these elements.

Step 9 – Statement of Income: compose a report and pay attention to the Net Earnings. In the first year, this value can be negative, which is typical for a startup. However, in the following years, the values should be positive, and the dynamics should demonstrate a significant growth. If this does not happen, it means that the revenues do not match expenses. Check whether all revenues are taken into account and look for expenses that are not justified by technology or business organization.

Step 10 – Balance Sheet: compose a report and check compliance with the main balance rule - formula (1).

Step 11 – Statement of Cash Flows: compose a report and check that there are no negative values in the Cash at End of Year row. Negative values indicate that the business is short on cash. This is the amount of investment that your business needs. Round it up and mark it as the amount of money you will ask the investor for. It may happen that the lack of money will manifest itself in the 3rd - 4th year, and then you should check the reason. If the reason is due to development, such as business expansion, you can plan to get a loan. Then prepare a credit offer.

Step 12 – Offer for an Investor and/or Lender: add the money that is planned to be attracted to the financial forms. Make investment amounts to Stockholders' equity and think over an attractive dividend policy. Enter Interest Expense to the financial forms for receiving and repaying the loan. Check the Statement of Cash Flows with new data. When all financial forms are in order, we consider the offer to be developed.

Step 13 - Financial Ratios: calculate the financial indicators for each year, analyze absolute values and dynamics. If necessary, adjust the elements of the financial plan (each time checking the sufficiency of money in the Statement of Cash Flows). Identify the strengths that the investor should pay attention to.

Step 14 – Try to conduct a preliminary defense of the financial model in your team: it will be divided into two groups - "Supporters" and "Opponents." The task of the "opponents" is to find 10 weak points in the financial projections. The challenge for the "supporters" is to find a convincing explanation (e.g., either about the mitigation of a weakness, or about turning it into a strength). If the team cannot find an explanation, then we return to improving the model.

Self-assessment questions

No	Question: Is it correct to say that...	Correct answer
1	...Net income is the amount of money available in a company at the end of the period?	False
2	... the greater difference between Gross sales and Expenses makes the project more attractive?	True
3	... the greater difference between Assets and (Liabilities + Equity) makes the project more attractive?	False

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4	... a negative value of Cash at the end of the year indicates that the project idea is a failure?	False
5	... the greater share of liabilities in the structure of the company's sources makes its efficiency lower?	False
6	... obtaining a loan is founder's goal and it is the subject of founder's request to investor at the stage of completion of their developments?	False
7	... profit prediction alone is not enough for the financial justification of the project?	True
8	... if the product is not material then Cost of Revenues can be zero?	False
9	... the potential share of the investor is reflected in the financial statements as Equity?	True
10	... investor money is more expensive than loan money?	True

Examination questions

1. What information about the business idea does the Balance sheet provide?
2. How to interpret the data in the Statement of Income correctly?
3. Why is a Statement of Cash Flows needed in a business plan?
4. What financial information does the comparison of current assets with current liabilities provide?
5. How does the analysis of the structure of liabilities and equity take place, and what does Financial Leverage mean in this context?
6. How can the efficiency of the assets involved be demonstrated in the business plan?
7. What is the purpose, essence, and indicators of analyzing the movement speed of the company's assets?
8. What are the stages and features of the life cycle of a venture business?
9. What financing sources for a venture business do you know?

Further readings and recommendations

Further readings

Gregson, G. (2014). *Financing new ventures: An entrepreneur's guide to business angel investment*. Business Expert Press.

Lawrence, S., & Moyes, F. (2004). Writing a successful business plan. *Business Plan Preparation*.

Maynard, T. H., Warren, D. M., & Trevino, S. (2018). *Business planning: financing the start-up business and venture capital financing*. Aspen Publishing.

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Sawyer, T. Y., & Dalgleish, D. (2015). *Financial modeling for business owners and entrepreneurs: developing excel models to raise capital, increase cash flow, improve operations, plan projects, and make decisions*. Apress.

Web links

The tool recommended below for financial calculations has been repeatedly proven useful in working with investors to obtain financing in various fields such as industry, agriculture, recreation, infrastructure, and others.

Tools for writing business plans were developed by Stephen Lawrence and Frank Moyes (Deming Center for Entrepreneurship, Graduate School of Business, University of Colorado)

<https://leeds-faculty.colorado.edu/moyes/bplan/Tools/tools.htm>

To develop the financial model, you need to download the Microsoft Excel files "Financials spreadsheets".

References

Microsoft Corporation (2022). Earnings Release FY22 Q1. <https://www.microsoft.com/en-us/Investor/earnings/FY-2022-Q1/balance-sheets>

Lasrado, L. A., & Lugmayr, A. (2013). Crowdfunding in Finland: A new alternative disruptive funding instrument for businesses. In *Proceedings of international conference on making sense of converging media* (pp. 194-201).

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Appendix: Financial glossaries

Terminology: Balance sheet

No	Term	Definition
1.	Accounts payable	The amount of your debt for goods (services) that you received on credit (the situation when "you owe money")
2.	Accounts Receivable	The amount owed by your customers for the goods (services) which you provided them on credit (the situation when "somebody owes money to you ")
3.	Accrued compensation	Payments to employees that they have already earned (wages, bonuses, etc.) but have not yet received
4.	Accumulated other comprehensive income	These are the sums of other incomes which were not considered in the previous balance sheet items, such as, recalculation of the value of foreign currency, compensation for insurance cases, penalty, etc.
5.	Assets	Resources owned by the company.
6.	Bonds payable	Long-term debts of the company issued under guarantees
7.	Cash and Cash Equivalents	The total amount of money held by a company that includes physical currency in its cash register and any funds deposited in its bank accounts that can be withdrawn immediately. Cash equivalents refer to short-term, highly liquid investments that can be easily converted into cash, such as treasury bills, money market accounts, and other securities with a maturity of less than three months.
8.	Common stock	Funds received from the first sale of common stock shares, which represent ownership in the company and give shareholders voting rights and a share of the company's profits. Common stockholders are also entitled to a share of the company's profits, which are typically distributed as dividends.
9.	Current assets	Current assets refer to a category of tangible, intangible and monetary resources that business consumes, replaces or converts into cash within a year.
10.	Current liabilities (short-term debt)	The company's debt that must be paid within a period of less than 1 year
11.	Current portion of long-term debt	The amount of a long-term debt that is due to be paid within the current year.
12.	Deferred income taxes	The difference between the amounts of depreciation deductions indicated in the financial statements and the amounts of depreciation deductions indicated in the tax returns.
13.	Deferred revenues (Unearned revenue)	Money you have received from a customer, but the product or service has yet to be manufactured or delivered
14.	Fixed assets (plant assets, long-lived assets, capital assets)	Tangible assets that a company owns and uses in its operations to generate revenue, such as: buildings, machinery, equipment, furniture, computers, etc.

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15.	Goodwill	An intangible asset that is determined during the purchase and sale of a business. Its value is the difference between the costs of acquisition and the fair value of the assets
16.	Income taxes payable	A current liability that represents the amount of income tax owed to the government by a company or individual for the current fiscal year but has not yet been paid.
17.	Intangible assets	Long-term assets that lack physical substance, such as patents, trademarks, copyrights, brand recognition, and goodwill.
18.	Inventory	Tangible current resources in the form of: <ul style="list-style-type: none"> • goods that have been purchased by customers but are still on hands of the company (for trade) • raw materials work-in-progress and stocks of finished products (for production)
19.	Investments (Long-term investments)	Non-current assets in the form of securities or ownership interests in the share capital of other enterprises.
20.	Liabilities	The company's obligations, that is, the amount of its debts.
21.	Long-term assets (noncurrent assets)	All resources of the company (tangible, intangible, monetary) which are used for more than 1 year.
22.	Long-Term liabilities (noncurrent liabilities)	Debts of the company that it does not have to pay in this period (that is, for a period of more than 1 year), such as: <ul style="list-style-type: none"> • Notes payable • Bonds payable • Deferred income taxes
23.	Notes payable	Debt under the terms of a written loan for a certain period and with interest
24.	Other intangible assets	Any intangible assets except for goodwill that were purchased from another party: copyrights, right-of-use, trademarks, patents, software, etc. Noncurrent intangible assets are subject to amortization
25.	Other accrued liabilities (other current liabilities)	Other (that is, not indicated in the previous items of the balance sheet) current financial obligations that a company has incurred but has not yet paid which must be liquidated during the year.
26.	Other receivables	Non-trade receivables, i.e. debts owed by other parties to the company (such as income tax refunds).
27.	Owner's equity	The amount of the business that is owned by the owners. Owner's equity includes the initial investment made by the owners, as well as accumulated income since the foundation.
28.	Paid-in capital	The funds that a company received from investors in exchange for ownership shares or stock (includes both common stock and preferred stock)
29.	Preferred stock	Funds received from the sale of preferred stock shares, which typically offer shareholders priority over common stockholders in terms of dividends and in the event of bankruptcy or liquidation.

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30.	Prepaid expenses	Expenses that have been paid in advance by a company, but have not yet been used or consumed. These payments are reported as assets on the company's balance sheet until they are used or consumed, at which point they become expenses. For example, paid in advance: salary or tax, rent, subscription, etc.
31.	Property, plant, and equipment – net (PP&E)	Refers to the total value of the fixed assets minus any accumulated depreciation or amortization.
32.	Retained earnings	The portion of a company's accumulated Net Income that is kept in the business after the distribution of dividends to shareholders.
33.	Short-term investments	Investments that a company plans to hold for a short period of time, typically less than one year. These investments are considered to be highly liquid, meaning that they can be easily converted into cash if needed. E.g., investment in securities, projects, etc.
34.	Short-term loans payable	A loan debt a company owes to a lender, and that must be paid (with interest) back within a year or less.
35.	Stockholders' (Shareholders') equity	The total value of the shareholders' investment in the business founded in the form of a corporation.
36.	Treasury stock	Stock that a company has bought back from its shareholders (e.g., when the owners leave the business) which reduces the total amount of shareholder equity, always has a negative value.

Terminology: Statement of income

No	Term	Definitions
37.	Accrual method of accounting	A method of recognizing and recording financial transactions when they physically occur (according to formal data, such as, invoices), regardless of whether or not cash has been exchanged. Revenue/expenses are recognized when goods or services are delivered/written off.
38.	Cost of revenue, COGS (cost of sales, cost of goods sold, cost of products sold)	All the costs directly related to the production and delivery of the product or service (added value creation) including: <ul style="list-style-type: none"> • Production costs: the cost of raw materials and the use of equipment, wages, production indirect costs, etc., • Costs of providing services: labor payment, supplies, access payment, subscriptions, etc., • Trade costs: the cost of purchasing and delivering goods, warehouse and store costs, preparation for sale, etc.
39.	Gross profit (gross margin)	The difference between company's net sales and the cost of goods sold (COGS): $\text{Gross profit} = \text{Net sales} - \text{Cost of revenue (COGS)} \quad (16)$ It characterizes the efficiency of the use of production resources (labor, equipment, materials) and technologies.
40.	Gross sales (Revenue)	Amounts of revenue from the sale of goods / services:

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		<p>Gross Sales = Total Units Sold x Sale Price (17)</p> <p>It is the result of the consumers vote with their wallets that shows how well the market perceives the created product / service.</p>
41.	Net income (net earnings, "the bottom line")	The amount of profit a company has earned over a given period of time. Net income is calculated by subtracting all of a company's expenses from its total revenue.
42.	Net sales ("the top line")	<p>The total amount of sales generated by a company after deducting VAT, any returns, allowances, and discounts from the gross sales figure. This is the the actual revenue earned by a company. That's why this is the first amount that is entered in the income statement.</p> <p>It characterizes the scale of business and the dynamics of its development.</p>
43.	Non-operating income	<p>The result of investment and financial activity which is defined as the difference:</p> <p>Non-operating income =</p> <p style="text-align: center;">= Non-operating revenue - Non-operating expense (18)</p> <p>Non-operating expenses include: interest expense, currency exchange losses, etc. Non-operating revenue is revenue from the sale of equipment that was used in the business, compensation for losses, received dividends, etc.</p>
44.	Operating activities	<ul style="list-style-type: none"> • The day-to-day main business activities that a company undertakes to generate revenue and manage its operations (production, service delivery, trade). • Other activities which are not investment or financial activities.
45.	Operating expenses	<p>The expenses incurred by a company in the normal course of its business operations, including:</p> <ul style="list-style-type: none"> • COGS (cost of revenue) • SG&A (Selling, general and administrative expenses)
46.	Operating income (Operating profit, Earnings Before Interest & Taxes or EBIT)	<p>The income generated by a company from its core business operations, after deducting all operating expenses related to those operations:</p> <p>Operating income = Operating revenues – Operating expenses</p>
47.	Operating revenues	<p>Revenues from operating activities which include:</p> <ul style="list-style-type: none"> • Net sales (in production and trade) • Service fees (in service delivery)
48.	The selling, general and administrative expenses SG&A	<p>The expenses that a company incurs in order to operate its core business operations, but are not directly related to the production of goods or services, i.e.:</p> <ul style="list-style-type: none"> • Sales and marketing, S&M

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	<ul style="list-style-type: none"> • General and administrative, G&A • Research and development, R&D.
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Explanations to the Statement of Cash Flow

Nº	Term	Definition
49.	Amounts in parentheses (or negative numbers)	A negative cash flow, indicates the outflow of money from the company and a decrease in its total amount
50.	Amounts without parentheses (or positive numbers)	A positive cash flow, indicates an inflow of money into the company and an increase in its total amount
51.	Cash flows from investing activities	<p>The cash inflows and outflows related to the development or winding up of a company.</p> <p>Changes in noncurrent assets are taken into account:</p> <ul style="list-style-type: none"> • money spent on the purchase of fixed assets and investments (business is developing, cash flow is decreasing); • money received from the sale of fixed assets or investments (the business is divesting, the sale of property gives an increase in cash flows).
52.	Cash flows from operating activities	<p>Cash inflows and outflows that ensure the performance of basic manufacturing and commercial functions. They are reported in the SCF by the following adjustments to the net income:</p> <ul style="list-style-type: none"> • addition of money amounts that do not increase the accrued outcomes but are actually available in the company such as amortization (included in profit with a negative value as an element of expenses but this money remains in the company) • subtraction of money amounts that increase the accrued outcomes but in fact we do not have them such as accounts receivable (included in profit with a positive value as revenue growth but the company does not have money yet).
53.	Cash flows from financing activities	<p>Cash inflows and outflows related to attracting or withdrawing funds from the business. Changes in liabilities and stockholders' equity are taken into account including:</p> <ul style="list-style-type: none"> • loans (borrowing adds to cash flow and repayment subtracts from it) • shares (issuing shares increases cash inflow, while issuing own shares decreases it) • dividends (paid to investors - reduce cash flow, received from shares in other businesses - increase) and so on.

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Unit 8: Legal Issues

Learning outcomes of the unit

After completing the unit, the students are able to:

1. Identify main legal issues related to starting a business in general context;
2. Identify and address specific legal aspects that are necessary for starting a particular business;
3. Identify benefits and disadvantages of different legal business entities.

Introduction

Although entrepreneurs may be focused much more on their main vision of the business - the creative and most interesting, thrilling part (Marcum & Blair, 2011), some very important administrative and technical facets must be considered as well, including the legal business aspects.

According to Philippart (2017), the legal system should not be seen as a strict set of limitations to the entrepreneur – the law puts forward a structure in which entrepreneurial actions can be cultivated, therefore, in a sense, the law provides possibilities rather than restrictions. The author explains that it is not a closed system since the law is in constant interaction with other - social and economic – systems making the law adjustable and dependent on the most significant developments in the socio-economic environment. It has been noticed that “the transformation of economic challenges has often been accompanied by a transformation of legal rules and their forms of application” (Pahlow & Teupe, 2019). Therefore, it is important to be able to identify and manage the current multiple possibilities, as well as to know the most recent legal sources relevant to the business. At this point it should be noted that the legal language is not easy, containing specific terms and technical information, it takes patience to analyze and understand each part without leaving a slightest chance for misinterpretation or unanswered questions, and it may even require for entrepreneur to consult with a business lawyer.

Business decisions of legal implications are made almost every day, however, beginner entrepreneurs face the biggest challenge of addressing all relative fundamental legal issues probably for the first time before launching their start-up. Marcum and Blair (2011) illustrate how it is important to understand the law by reminding of a belief that the entrepreneurial success “lies in making fewer mistakes than the competition”, meaning that relevant legal issues should be addressed with responsibility minimizing the risk of making over-simplified and, possibly, wrong decisions. The authors distinguish three “immediate legal issues impacted by short-term decisions”, which are crucial and are specific to early stages of business: business entity formation, contracts (e.g., founders’ agreements) and intellectual property (see Figure 1).

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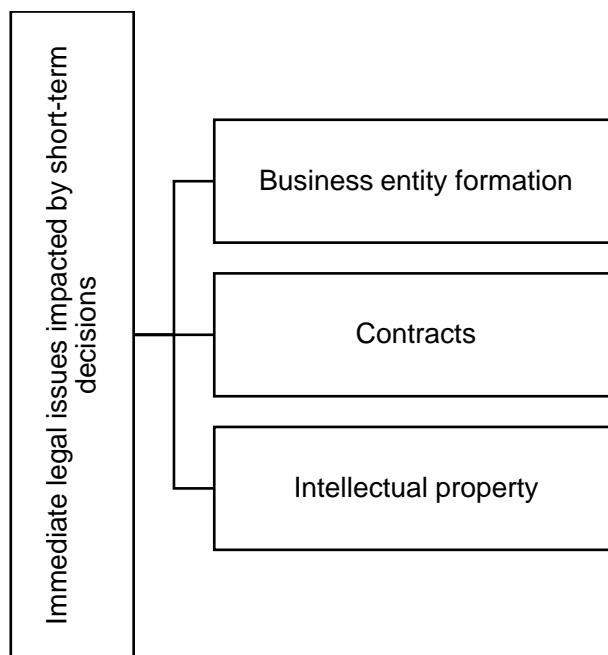


Figure 1. Immediate legal issues impacted by short-term decisions (Marcum & Blair, 2011).

Business entity formation

One of the most crucial decisions for entrepreneurs to make in the beginning of their business is to choose their legal business form (also referred to as business structure, entity, type, etc.) according to their activities and goals. In different countries options may vary, however, there are four main and most common legal entities (Hertz et al., 2009): sole proprietorship, partnership, limited liability company (LLC) and corporation (see Table 1). Sole proprietorship and partnership are considered informal business forms because they do not offer personal liability protection since there is no legal distinction between the owner and the business. Formal business forms, on the other hand, offer liability protection (there is a legal separation between the business and owner’s personal assets) and taxation benefits.

Table 1. Most common legal business entities.

Informal business structure	Sole proprietorship	A business form for a single entrepreneur, the business and the person are basically the same entity, therefore the liability of the business is also the liability of the person (Marcum & Blair, 2011).
	Partnership	A business structure that is based on the agreement between two or more parties in which all operate and manage the business together (Dar, 2022). There are several different kinds of partnership (e.g., general partnership or limited partnership) and some of them may be considered as formal business structures.
	Limited liability company (LLC)	A single person or more partners (usually called members) can establish the company, in the latter case

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Formal business structure		a member's liability is limited to the amount of his/her share of the capital (Kisswani & Farah, 2021).
	Corporation	Corporation is considered as a separate legal entity by law and separated from its owners/partners, however, corporation is the most complex business form and requires many formalities depending on the region, for instance, establishing a board of directors or organizing annual meetings (Marcum & Blair, 2011).

These legal structures have their own different forms and variations, as well as their names may vary in different countries around the world (for example: *LLC*, used in most states in the USA, is more or less an equivalent to *Ltd* in the United Kingdom). Besides these few business forms listed above, each country may have more options for the entrepreneur to offer. It should be reminded that the legal system changes constantly and legislation, regulating different business forms, expands and gets updated as well, therefore the entrepreneur must be aware of the latest legal updates relevant to their business in their country.

In Lithuania, for instance, a starting entrepreneur in handcrafting business can choose the best option amongst different business forms that vary in advantageous and disadvantageous aspects such as tax rate or validity level. The entrepreneur can decide whether they like to stay as a natural person working with *Sole proprietorship* or *Business certificate*, or to become a juridical person by establishing a company where also different business type options are available.

Legal business entities consist of the variety of benefits and disadvantages. For example, the benefits of an LLC include protection of owners' assets, management flexibility, less paperwork (see Figure 2).

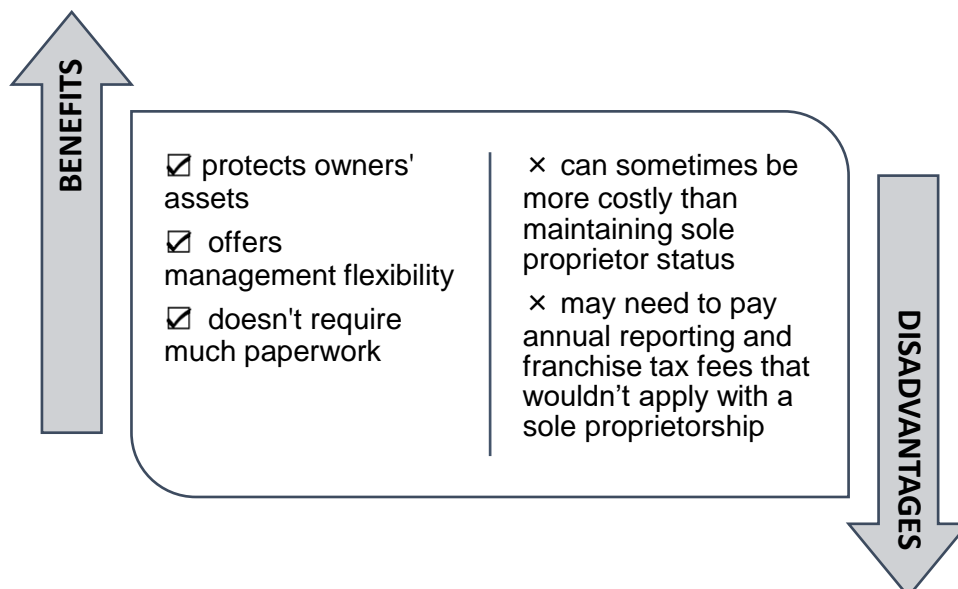


Figure 2. The benefits and disadvantages of an LLC (Johnson, 2023a).

Sole proprietorship consists of such benefits as simplicity and inexpensiveness. The disadvantages include that a lot of responsibility lies on the business owner, there is no legal protection for business owner’s personal assets, no eligibility for business tax breaks or small business loans, there can be only one owner (see Figure 3).

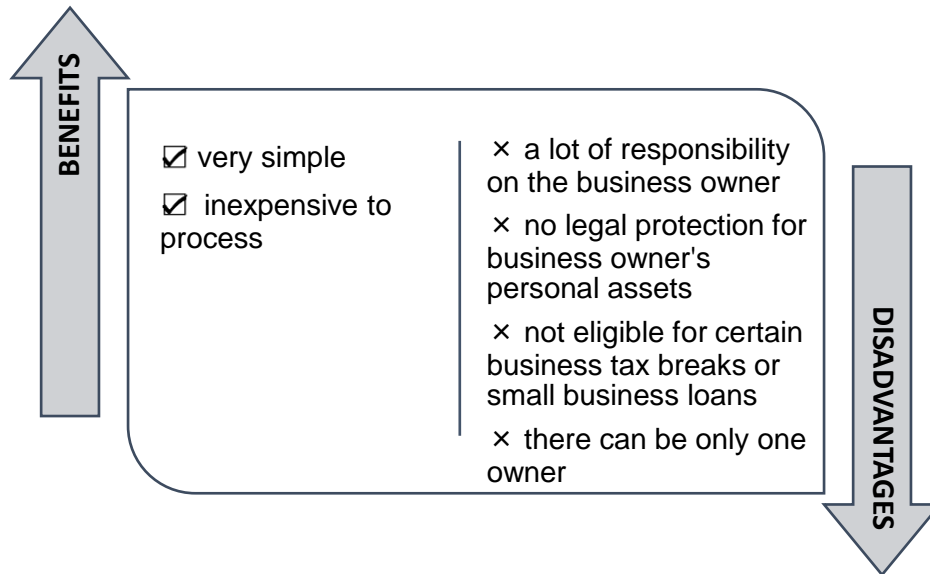


Figure 3. The benefits and disadvantages of a sole proprietorship (Johnson, 2023b).

Corporation has such benefits as personal liability protection, business security and perpetuity, access to capital, tax benefits. Meanwhile, disadvantages consist of lengthy application process, rigid formalities, protocols and structure, double taxation, expensiveness (see Figure 4).

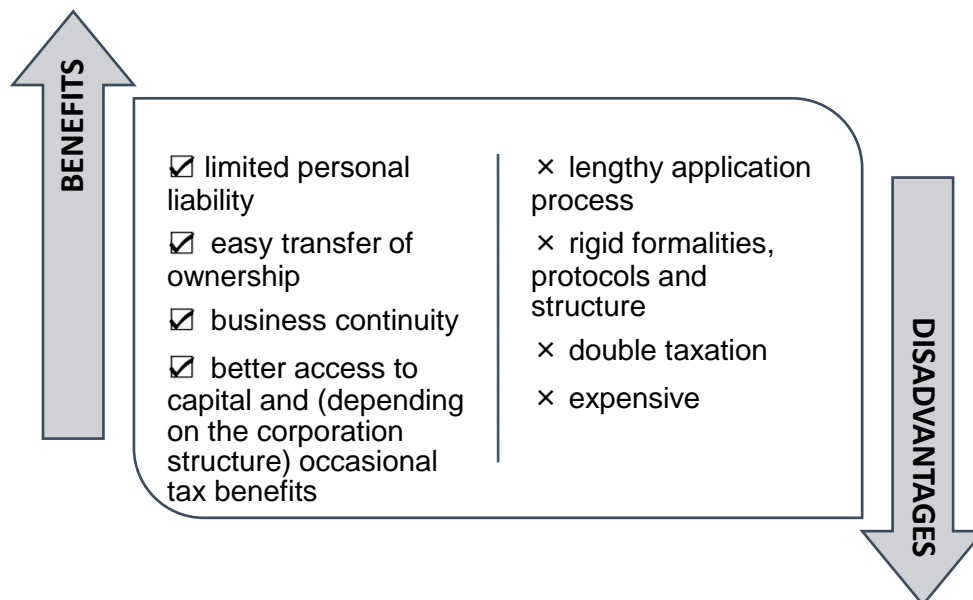


Figure 4. The benefits and disadvantages of a corporation (Schooley, 2023).

A business structure of partnership encompasses such benefits as easy formation, growth potential and special taxation. Meanwhile, disadvantages are such that partners are personally liable for business debt and liabilities. Moreover, the choice of such business structure can lead to management and oversight issues absent in a partnership agreement (see Figure 5).

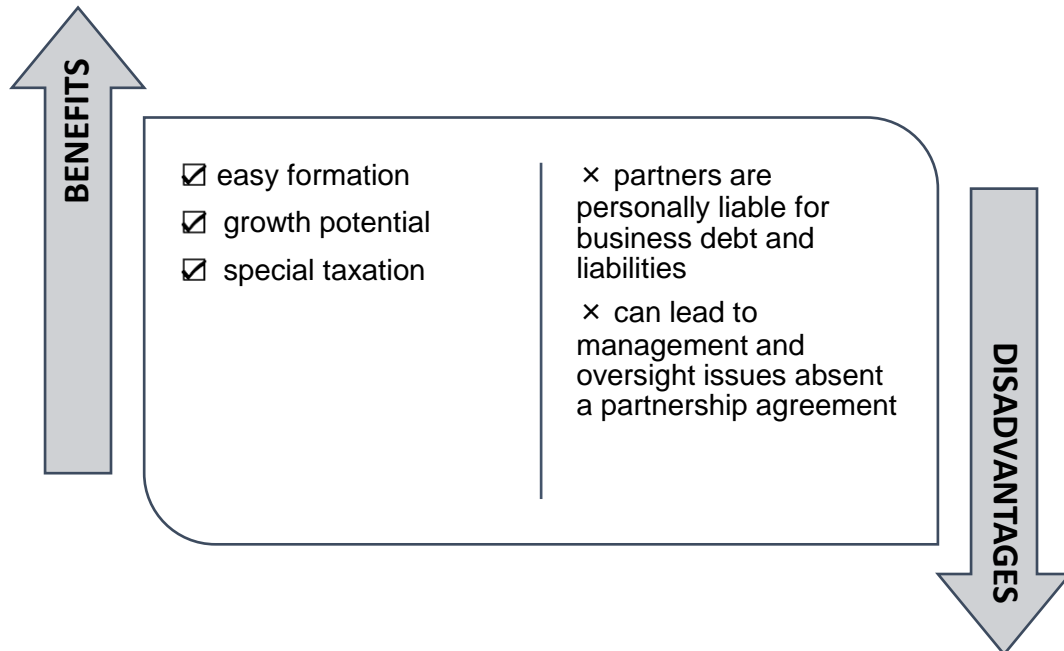


Figure 5. The benefits and disadvantages of a partnership (Stowers, 2023; Pathway Lending, n.d.).

Contracts

Another crucial step in the early process of business establishment is contracts - depending on the business forms it may include founders' agreements, non-compete agreements and other important contracts (Marcum & Blair, 2011). At this stage there may be a risk of quick personal decisions that may have consequences on the business in the future, therefore the entrepreneur should consider consulting a lawyer for forming and/or reviewing contracts.

Intellectual property (IP)

For an entrepreneur it is crucial to be aware of the intellectual property nuances - it means not only protecting their own original ideas but also be aware of others (e.g., avoid accidental choice of a name that is already taken by another company and is legally protected). In the case of protecting their own ideas, "entrepreneurs should seek to guard intellectual property (IP) rights from the competition; this may be achieved by controlling the way in which intellectual property is used, distributed, and accessed" (Marcum & Blair, 2011). When intellectual property is protected, the creators benefit from their creations which cannot be used by others without permission. There can be different IP types, such as patents, trademarks, copyright and other (Power & Reid, 2021). Of course, it depends on the business, whether and what kind of the IP

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protection the entrepreneur needs, and, again, it should be a well-thought-out decision based on thorough research or legal consultation.

Exercises

Discussion starters

1. Why is a legal business structure important? What factors do you need to consider when choosing the right business structure to start a business?
2. Why are the three immediate legal issues impacted by short-term decisions (business entity formation, contracts and intellectual property) important? Please ground your choices for your start-up.
3. Considering the preparation of writing your business plan, what specific aspects would you think about grounding your choices of legal issues? Using the provided theoretical material and further readings and recommendations provided below, list specific actions and arguments for your choices on legal issues, which you could use to write a business plan.

Activities

Activity 8.1. Business entity comparison chart

Identify the key distinctions among the business entities by filling the information in Table 2. Then use the collected information in the table, identify the most suitable entity for your start-up and ground your choice by providing the arguments.

Table 2. Business entity comparison chart.

Entities	Sole proprietorship	Partnership	LLC	Corporation
Ownership				
Personal liability of owners				
Tax treatment				
Key documents for formation*				
Management of the business				
Capital contributions				

Note: * should be based on your country's case.

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Activity 8.2. Matching activity

Match the rectangles with the ovals (see Figure 6).

... - is a business entity that helps shield a business owner's personal assets from business debts or if the business faces a lawsuit.

... - do not need to be renewed annually, they require less paperwork and they don't cost much to process.

... - is owned by one or more shareholders, and the percentage of each one's ownership directly correlates to the number of shares they own.

Marketing director Jessica LeMauk at Voxtur said that "... – is just like a marriage: No one goes into it thinking that it's going to fail, but if it does fail, it can be nasty".

A ... is recognized as a separate entity by the state and protects its owners from personal liability for the business's debts or legal trouble.

A business partnership

Corporation

A limited liability company (LLC)

A sole proprietorship

Figure 6. Matching activity (Schooley, 2023).

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Self-assessment questions

	TRUE	FALSE
1. The legal system is a strict, closed system.		✓
2. The types of business entities are the same in all countries of the world.		✓
3. In the case of sole proprietorship, the business and the person are considered the same legal entity.	✓	
4. Limited liability company (LLC) is one of the most common business forms in the world.	✓	
5. Corporation, as a business type, does not offer personal liability protection.		✓
6. Partnership is strictly informal business entity.		✓
7. "No legal protection for business owner's personal assets" is one of the disadvantages of the proprietorship business type.	✓	
8. Tax assessment is one of the three immediate legal issues impacted by short-term decisions.		✓
9. There are different types of intellectual property that may include patents, trademarks or copyright.	✓	
10. Business entity formation (choosing the right legal business structure) is mainly based on the entrepreneurs' activities and goals.	✓	

Examination questions

1. What are the types of business structures? What types of business structures can you find in your country?
2. What criteria you would use choosing business structure for the business? Please provide arguments.
3. In your opinion, what is the best type of business structure? Provide arguments.
4. What business structures would you consider for a small business? Why?
5. Imagine, you have a rental property. What business structure would you choose for it?
6. Please list advantages and disadvantages of business structures you find in your country.

Further readings and recommendations

Further readings

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Web links

Entrepreneur is a website of an American magazine of the same name that offers useful information for entrepreneurs on different topics and in different formats (articles, webinars, podcasts, etc.). In their European version of the website there is a column dedicated to legal aspects: <https://www.entrepreneur.com/topic/legal>.

How to start and LLC - a website for entrepreneurs starting their business. A column on choosing business structures provides practical definitions and comparisons amongst the main business forms: <https://howtostartanllc.com/choosing-a-business-structure>

A column on legal structure of the **Small business trends** website offers latest news and advice for a starting entrepreneur: <https://smallbiztrends.com/tag/legal-structure>.

EU-Startups website is specifically dedicated for business opportunities in the European Union: <https://www.eu-startups.com/2022/12/compact-overview-of-the-most-common-legal-entities-for-companies-in-all-eu-member-states/>

Business News Daily - a website for start-ups and early stage business owners to find the latest news and information they need to launch and grow the business successfully: <https://www.businessnewsdaily.com/4686-how-to-start-a-business.html>

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Marcum, T., & Blair, Eden. (2011). Entrepreneurial decisions and legal issues in early venture stages: Advice that shouldn't be ignored. *Business Horizons*, 54, 143-152. <https://doi.org/10.1016/j.bushor.2010.11.001>.

Pahlow, L., & Teupe, S. (2019). Introduction: Business and the Law. *Management & Organizational History*, 14(4), 311-316. <https://doi.org/10.1080/17449359.2019.1718900>.

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Unit 9: Leadership and negotiation

Learning outcomes of the unit

- The learner will understand the concept of leadership and get familiar with different leadership techniques
- The learner will understand the basics of negotiation and get familiar with different style of negotiation
- The learner will learn more about the necessary skills and competences for leading a team and get involved in negotiation

Leadership

Definition of leadership

Leadership and its role are the most concerning issue for the business and organizations nowadays. The “Leaders are individuals who establish direction for a working group of individuals and who gain commitment from this group of members to established direction and who then motivate members to achieve the direction’s outcomes” (Conger, 1992, p18). The term leadership can be viewed through multiple angles and concepts. Traditionally leadership is a set of feature owned by the leader or it is a social phenomenon that comes from relationship with groups.

These concepts can give different opinions about the definition of leadership. It is a continuous debate that whether the leadership comes from the personal qualities of a leader or a Leader makes followership through what s/he does or believes (Grint 2004). Grint also highlight position problems with the leadership, which explores, is the leader a person in charge? With the true authority to decide or implement, or it is only a person in front who takes h/her directions for someone. Recent reviews take leadership as “a process whereby an individual influences a group of individuals to achieve a common goal (Northouse 2004). Another view about leadership is that “leadership is like the Abominable Snowman, whose footprints are everywhere but who is nowhere to be seen” (Bennis and Nanus 1985).

In short leadership/leader is either a person who is in charge and has authorities to take decision and also has powers to implement their decisions or a process having a set of other authoritative process about organizational, personal or social process of influence for which the groups, teams or organizations can do more to increase their ability. The selection of the leader not only depends on the personal characteristics of personal but also on the social and cultural factors along with h/her exposure towards life (Bolden 2010).

Different leadership styles and their features

The 8 most common types of leadership:

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1. Democratic Leadership

A democratic leader makes decisions based on their team’s opinion and feedback. In simpler words, leaders get everyone involved in the decision-making process. However, this type of leadership cannot be used in the long run because of drawbacks like losing the leader’s authority, debates, and miscommunication between team members. Here are some scenarios in which democratic leadership style can be adopted:

- New project that requires constant brainstorming
- Solve complex business problems
- Tight-knit or small organisations like start-ups, etc.

Features of this leadership style

- Transparent conversations
- Everyone’s opinion counts
- Values collaboration and teamwork
- Encourages discussions

Additional comment: focused team meetings can be a great tool to enhance democratic leadership. When deciding about a project it is worth to give space to pros and cons and discuss it thematically with the team members. This meetings should always end up with a conclusion and the draft of next steps.

2. Autocratic Leadership

This is precisely the opposite of democratic leadership. The opinions of team members are not considered while making any business decision. Instead, leaders expect others to adhere to their decisions, which is not sustainable in the long run.

Additional comment: with startups, this type of leadership doesn’t work. Making decisions without other members’ feedback and opinion later on can result in conflicts and lose of motivation. Creating common goal together should bring success and motivation further on.

3. Laissez-faire Leadership

Laissez-faire means “let them do”. This leadership style is the least intrusive and ensures that the decision-making authority lies with the team members. This leadership style empowers team members and holds them accountable for their work. This motivates many team members to put their best foot forward, improving the organisation’s efficiency and productivity.

Additional comment: this leadership can work only if the leader is sure that all members are equally motivated and work independently and that is often not realistic. Even so, regular meetings when reaching milestones or a point of decision is always necessary to make sure that everyone is in the same page. If no control applied the the working progress can easily lead to failure.

4. Strategic Leadership

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Strategic leadership is when leaders use their skills and capabilities to help team members and organisation achieve their long-term goals. Strategic leaders strive to get the best out of people or situations.

Unique traits of strategic leaders

- They are interested in the well-being of others
- They are open-minded
- They are self-aware
- They are good at interpersonal communication

Additional comment: Creating a long term strategy and define milestones and keypoints – it is essential. After the strategy is ready, it can be adjusted each and every teammembers and working groups’s skill and competences aligning with them. It is essential that the leader and the whole team takes time to plan on the long run and not just focusing on random and urgent tasks. Long term, stable and realistic vision is the key to success of a company.

5. Transformational Leadership

Transformational leaders inspire others to achieve the unexpected. They aim to transform and improve team members’ and organisations’ functions and capabilities by motivating and encouraging them.

Additional comment: it is crucial to build and develop and organization that can follow up changes and adjust to them. As a leaders’ responsibility towards the organization to keep a frequently updated knowledge base and frequently gather feedbacks database from its members. It is worth to map people’s skill and competences time to time and evaluate the results and based on it occasional trainings and organizational changes could be impleted. It is important to ensure that members of the team according to their competences can help and support each others’ work.

6. Transactional Leadership

This type of leadership is task-oriented, which means team members who meet the leader’s expectations will be rewarded, and others will be punished. It is a prevalent leadership style based on the action-and-reward concept.

Additional comment: the concept of rewards and punishment is old fashioned and usually works for multinational companies where roles and processes are rigid and very much defined. Applying this kind of leadership in startups won’t bring you the necessary results as it can easily lead to unmotivated team members and easily indulge fear and stress among them. Achieving results should be a common celebration and when it comes to fail: it is more productive to discuss what can be improved in the future.

7. Coach-Style Leadership

This leadership style focuses on identifying and nurturing a team member’s strengths and weaknesses. A coaching leader develops strategies that emphasise team

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members' success. Though this is similar to strategic and democratic leadership styles, the focus here is more on the individual.

Additional comment: it is essential that the leader has an excellent sense of leadership, empathy and interpersonal skills. If a leader knows the weaknesses and strengths of team members, task can be easily assigned to the correct person and executed with more success but also gives a space to the member of the team to grow their skills meanwhile. This can be achieved with one-on-one discussions and mapping out the members' motivation and personality. Also in this leadership, taking time to celebrate the achieved results do matter and can inspire everyone to achieve more. This celebrations could be integrated to the culture of an organization.

8. Bureaucratic Leadership

This kind of leadership style sticks to the rules. For example, they might listen to their team members' opinions while deciding.

Benefits of this type of leadership

- Lowers the risk of favouritism among team members
- Increases creativity for some employees

Additional comment: strict rules don't work for everyone, although they are necessary to frame a collaboration and teamwork and helps avoid confusion and misunderstanding. To have a solid base of work and collaboration it is best to lay down realistic rules together („Team contract) within the organization during a session dedicated only to this activity. It might not be perfectly suitable for everyone but must be accepted and respected by everyone.

How to Choose the Leadership style?

Ways and steps to consider in which enables the leader to choose the right leadership style:

- Outlining values, ethics, and challenges as a leader
- Practicing self awareness: the first step towards becoming an effective leader
- Observing other leaders: respect towards other leaders help ones to determine their leadership style. Observing good practices in tackling complex business situations, client meetings, stakeholders
- Trying different leadership styles before choosing one
- Finding a mentor to assist in choosing the proper leadership style
- Asking peers for feedback
- Taking a leadership style assessment that helps determine leadership style

Leadership style assesment here: [quiz](#)

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Leaders vs. bosses

Leadership is often got confused with being a manager or giving orders to coworkers or employees as their boss. Here is a list to remember, what real leadership consist of:

- Managers aren't leaders. Leaders can be managers. But leaders break things. Managers make them operational and rhythmic.
- Bureaucrats aren't leaders. Leaders can be bureaucratic if related to the product and customer needs.
- Leaders have followers. Not only employees who report to them. Followers unrelated to title and position.
- Leaders push boundaries and scare people with their bravery.
- Leaders understand complexity but operate simply. They define the goals, mission, objectives in easy to understand terms and metaphors.
- Leaders focus the team on the possible while challenging them to dream the impossible.

Qualities of a good leader

Leadership isn't something people are born with – it's a skill that can be cultivated over time. When someone is dedicated to develop strong leadership attributes, they are positioned to inspire an entire team. Here are 11 basic leadership qualities that everyone can refine in order to be a more productive leader:

1. Confidence

True leaders are confident and know they can think – and act – outside the box to take their companies to the next level. They know that leadership qualities like openness, emotional agility and resourcefulness are often more important than being able to make a sale or wow a group of investors.

2. Focus

Distractions can be one of your biggest business saboteurs, but those who display strong leadership attributes don't let them intrude. Limit distractions by creating an environment that is conducive to focus.

3. Vision

Think of some of the world's greatest leaders: Martin Luther King, Jr. Nelson Mandela. Mother Teresa. Each of them had very different leadership attributes, but they all had one thing in common: a powerful vision not only for their own lives, but for the world. They had an unstoppable belief in themselves and their dreams.

4. Resilience

Most leaders didn't get where they are because they were born with innate leadership qualities. Becoming a leader doesn't always come naturally. Leaders must be willing to embrace a growth mindset, develop your skills, work on your weaknesses and challenge themselves daily.

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5. Honesty

Many people believe that successful business and political leaders are inherently dishonest, but strong leaders treat others just as they expect to be treated – in an honest fashion. Being honest is not only one of the leadership qualities that will allow someone to lead their business with integrity, but it’s the only real way to make strong connections with others.

6. Positivity

One of the top leadership qualities of truly great leaders is a sense of abundant positivity that energizes everyone in the room. It’s not that true leaders never have moments of frustration or disappointment, but that they’re able to take a positive approach to tackle challenging issues. Inspiring leaders know how to turn setbacks into successes and make a point to display optimistic leadership attributes on a daily basis.

7. Decisiveness

Every single person in a leadership role of any kind sometimes has to make difficult decisions. How one is handling decisions is one of the top leadership qualities. The ability to be decisive can mean the difference between getting through a tough time or crisis and folding under pressure. Making these kinds of calls doesn’t always mean the leader will be well-loved, but when they use good judgment to make decisions, it will earn them the respect of others.

8. Effective communication

Knowing the team’s, and leadership communication styles is one of the qualities of a good leader that will strengthen the business at most. Leaders don’t just communicate information to their team, they also know how to communicate goals and their vision to get their team excited.

9. Accountability

A leader is going to make mistakes. Blaming others, justifying actions or pretending like mistakes never happened erodes trust among the team and will discourage them from being accountable for their own mistakes. Great leaders take more than their share of blame and less than their share of credit, which creates an organizational culture of trust and humility. When the leader is accountable, they can also hold their team accountable for their actions, ultimately creating a sense of responsibility that will keep them continually striving for their personal – and business’ – goals.

10. Empathy

Without empathy, the reverse happens: alienating the people the leader is attempting to create connections with, whether they’re customers, employees, colleagues or competitors. Cultivating empathy is the precursor to almost every other soft skill required for leadership, from self-awareness to critical thinking.

11. Creativity

Creativity is one of the most underrated leadership attributes. Yet especially in today’s fast-paced, ever-changing market, it’s actually one of the top leadership qualities at successful businesses. That’s because creativity and innovation go hand in hand.

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Ways to enhance fundamental leadership skills

Grasping the fundamentals of leadership is critical to success. It ensures organizations rest on a solid foundation that can propel them to achieve their wider business objectives.

But those skills don't come naturally to a lot of people. Leaders can practice the fundamentals of leadership on their own, but truly mastering them requires investing in a comprehensive fundamentals of leadership development program with professional coaches.

Leaders can develop their critical leadership skills by:

- Engaging in one-on-one sessions with leadership coaches to share and receive guidance about specific challenges
- Taking constructive criticism from an external observer who can offer a more unbiased look at the challenges the individual faces.
- Receiving appropriate resources and materials that give leaders the tools they need to identify and develop their skill sets.
- Tracking their progress using data-driven key performance indicators, encouraging further development and identifying areas of improvement. With focused monthly meetings, feedback rounds, one-one sessions or evaluation questionnaire – they all generate data and valuable inputs from team members.

Negotiation

What is negotiation?

The term negotiation refers to a strategic discussion that resolves an issue in a way that both parties find acceptable. In a negotiation, each party tries to persuade the other to agree with their point of view. Negotiations involve some give and take, which means one party will always come out on top of the negotiation. The other, though, must concede—even if that concession is nominal.

By negotiating, all involved parties try to avoid arguing but agree to reach some form of compromise. Negotiating parties vary and can include buyers and sellers, an employer and prospective employee, or governments of two or more countries.

Negotiation process

Negotiation process is the single most important factor predicting the success or failure of a negotiation. An effective process includes managing the negotiation's overall strategy or approach, its stages, and the specific tactics used. As with other aspects of negotiating, process varies markedly across cultures. An effective strategy reflects the situational characteristics and personal backgrounds of the negotiators involved. It balances the position, procedure, timing, and roles of the negotiating partners (Adler 1997). To successfully negotiate globally, Fisher and Ury (1981) advocate for a culturally synergistic approach, based on principled negotiation method, which could lead to fruitful cross-cultural negotiations. This approach involves four steps:

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1. Separating the people from the problem;
2. Focusing on interests, not on positions;
3. Insisting on objective criteria (and never yielding)
4. Inventing options for mutual gain.

Stages of negotiation

There are several basic steps involved in managing the negotiation process.

1. Planning

It starts with negotiators identifying those objectives they would like to attain. Next consideration is given to areas of common ground between the parties. Other major areas include:

- The setting of limits on single point objectives;
- Dividing issues between short term and long term considerations; and
- Determining the sequence in which to discuss various issues

Meanwhile, most researcher advocates that successful negotiators' planning behavior differed from less skilled negotiators in terms of the following criteria:

- Planning time. Successful negotiators use time in ways that are more fruitful to negotiation outcome than average negotiators and this is where successful negotiators tend to pay a lot of attention on how to use available time so as to advantage their negotiations;
- Exploring options. Successful negotiators are inclined to come up with a wide-ranging options than the average negotiators thereby increasing their chances for success;
- Establishing common ground. Unlike the average negotiators, successful negotiators are more focused on developing common ground than paying attention on areas of conflict than of agreement;
- Focusing on long-versus short-term horizons. Successful negotiators are strategically focused and therefore they spend more time on long-term issues than short-term issues. Whereas, the average negotiators do not spend a substantial amount of time on strategic issues

2. Interpersonal relationship building

The second phase of the negotiation process involves getting to know the people on the other side. This feeling out period is characterized by the desire to identify those who are reasonable and those who are not. This is particularly important for collectivist culture, as the essence of any negotiation is primarily based on how much there is a trust in interpersonal relationship between partners involved in negotiation.

3. Exchanging task related information

In this part of the process, each group sets forth its position on the critical issues. At this point the participants are trying to find out what the other party wants to attain and what it is ready to give up. In negotiating, cross-cultural miscommunication can give

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rise to numerous hurdles for the parties involved. Here is what happened as a result of the Iranians' misinterpretation of a bargaining offer in English.

4. Persuasion

This is the most important step. The success of the persuasion often depends on:

- How well the parties understand each other's position;
- The ability of each to identify the areas of similarity and differences;
- The ability to create new options; and
- The willingness to work towards a solution.

Goldman propounds that in negotiation what counts is not the reality but the party's perception of reality (Goldman 1991). There are two extreme negotiating positions of hard and soft. Those taking hard positions see every negotiation as a contest of wills. They believe that by taking extreme positions and holding out longer, they will fare better. Often, the other party responds by taking an equally hard position. This exhausts both parties and damages their long-term relationship. On the other hand, soft positions may create a one-sided deal and ill feelings. Avoiding confrontation and taking more accommodating soft position may result in an undue advantage for the other party. Both hard and soft approaches to negotiation are not constructive. The best way would be negotiating on merits or principled negotiations (Fisher and Ury 1981). With this in mind, one also needs to be aware of the negotiation styles across cultures which plays a crucial role in persuasion. For example, Americans push hard for direct answers and fill potential periods of silence with rhetorical embellishments. Latin Americans may simply change the topic when it becomes too pointed or uncomfortable. Chinese negotiators, on the hand, try to avoid conceding any points until the talks near their culmination point. Whereas, the Japanese seem unemotional in their persuasive techniques, but Koreans, Italians, and Middle Eastern negotiators often rely on bravado and intimidation tactics (Holt and Wigginton 2002).

5. Agreement

The final phase is the granting of concessions and hammering out a final agreement. To negotiate effectively in the international areas, it is necessary to understand how cultural differences between the parties affect the process. For example, the way Americans negotiate is different from Russians and Asians in that Americans negotiate an issue at a time and then once that issue is resolved, they then move on to focus on the next issue. Whereas, Asians and Russians tend to negotiate a final agreement on everything and few concessions are given until the end (Reardon and Spekman 1994).

Negotiation techniques

According to Harvard Law School's Negotiation Institute these are essential negotiation techniques can help professional negotiators increase their bargaining power:

1. Reframing anxiety as excitement. The preparation stage of negotiation often comes with unpleasant side effects, such as sweaty palms, a racing heart, and

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seemingly overwhelming anxiety. It's common even for professional negotiators to feel nervous, but this state of mind can lead us to make costly decisions, according to Harvard Business School professor Alison Wood Brooks. We tend to believe the best negotiation techniques to deal with our anxiety is to calm down, but that can be easier said than done. Try reframing the state of high physiological arousal associated with anxiety as excitement, recommends Brooks. This subtle reframing tactic, which treats your arousal as a plus rather than a minus, actually increases authentic feelings of excitement—and improves subsequent performance in negotiation, Brooks has found in her research.

2. Anchoring the discussion with a draft agreement. Due to a widespread decision-making heuristic known as the anchoring bias, first documented by psychologists Amos Tversky and Daniel Kahneman, the person who makes the first offer in a negotiation is likely to sway the discussion in her favor. First offers tend to serve as powerful anchors, even for experienced professional negotiators. To make an even bigger impact, you might try opening substantive negotiations with a draft agreement, or standard-form contract, prepared with your legal counsel and any relevant decision makers from your team. Though such drafts aren't always appropriate, they can increase your influence over the negotiation, according to Tufts University professor Jeswald Salacuse. A standard-form contract not only uses the anchoring bias to your advantage but could save both sides time and money, making this one of the negotiation techniques that could really be worth trying.

3. Drawing on the power of silence. In negotiation, as in any discussion, we tend to rush in to fill any uncomfortable silences that arise with persuasion techniques and counter-arguments. That can be a mistake, according to Harvard Business School and Harvard Law School professor Guhan Subramanian. After your counterpart speaks, allowing a few moments of silence to settle can give you time to fully absorb what he just said. "Silence give you the ability to dampen your instincts for self-advocacy and amplify your instinct to listen," according to Subramanian. Silence can also help you defuse your own tendency toward the anchoring bias. If a counterpart drops an outrageous anchor, "your stunned silence will far more effectively defuse the anchor than heaps of protesting would," says Subramanian.

4. Asking for advice. Negotiators often assume that asking the other party for advice will convey weakness, inexperience, or both. But in fact, in one recent study, participants rated partners who asked them for advice to be more competent than partners who didn't ask for advice, Brooks, Wharton School professor Maurice Schweitzer, and Harvard Business School professor Francesca Gino found. When we ask for advice, we flatter the adviser and boost her self-confidence, the researchers discovered. So, consider taking opportunities to ask your counterpart for advice when you truly need it. Not only are you likely to benefit from the advice, but you may strengthen the relationship in the process.

5. Putting a fair offer to the test with final-offer arbitration. When negotiating to end a dispute under the shadow of a lawsuit, you might find yourself frustrated by a counterpart's seeming inability to make or entertain reasonable, good-faith offers. How can you come to a settlement that's fair to both sides in such an adversarial negotiation? One promising but underused tool is final-offer arbitration (FOA), also

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known as baseball arbitration, according to Harvard Business School professor Max H. Bazerman. In FOA, each party submits its best and final offer to an arbitrator, who must select either of the two offers and not any other value. Parties may not appeal the arbitrator’s decision. When parties agree to use FOA, their offers typically become reasonable, as they now have an incentive to impress the arbitrator with their reasonableness. In Major League Baseball, where FOA is available, uncertainty about what an arbitrator might decide usually motivates players and teams to come to agreement in contract disputes. The next time you are in a dispute with someone you believe is being unreasonable, consider suggesting FOA, recommends Bazerman. If she has been bluffing, she likely will respond to your suggestion with a much more reasonable offer. If she takes you up on your offer, you should have confidence in your ability to impress the arbitrator with your reasonableness.

Skills for negotiation

1. Adopt a win-win approach

The ideal outcome for a negotiation is almost always a win-win situation in which everybody goes away satisfied. In most negotiations, it is in the negotiator’s best interest to foster a cooperative atmosphere to increase the chances of a win-win outcome (Stark, 2003). A negotiator cannot go to a negotiation table with the attitude that he is happy with a win-lose outcome, as long as he is not the loser. With a win-win outcome there is a greater chance to create beneficial long term relationships. It is important to avoid narrowing the negotiation down to one issue. Negotiators have to see the overall picture of the deal. The most common example is arguing over the price of a product or service (Stark, 2003). Price is not the only issue to be considered. For instance timing and quality are also very important to be considered in a negotiation. The overall price of a product consists of many things, such as delivery date, financing and the amount and quality of the product. People do not always select the cheapest option when they buy something because the money value of a product or service is not the most important factor. If a negotiator brings multiple issues to the negotiation table it will provide the opportunity to create a win-win outcome. People negotiate with each other because the other one have something he wants and he has something the other person wants. People need to keep in mind when negotiating that their counterpart does not have the same needs and wants they have. It is also important not to assume to know a counterpart’s needs. It is very common for negotiators to assume they know exactly what their counterpart wants (Stark, 2003). However, as Forsyth (2009) advices, never assume anything because it may make ‘an ass out of you and me’. Each counterpart in a negotiation usually has implicit and explicit needs.

2. Practice communication competence

It is true that communication can lead to a complex problem or a brilliant solution. To achieve effective communication, a negotiator should ask both open and closed ended questions to make sure that the message is received. The negotiator should use tools such as paraphrasing and restatement to clarify issues that he might be uncertain about. It is always a good thing in communication to go straight to the point but in negotiation, it is better to talk about general issues first and then proceed to the details. This helps relieve tensions and create a friendly business atmosphere. A negotiator

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should think beforehand whether he should make the opening statement or if he should first listen to what the opponent has to say and gather as much information as he can. When people reveal information too early, it may be a disadvantage for them because the counterpart knows something about them but they do not know anything about their counterpart. The saying, ‘knowledge is power,’ is never more true than in the early stages of the negotiation process (Acuff, 2008). In international business, negotiation encounters numerous challenges because people from different cultures perceive, interpret, and evaluate the world differently. Accurately communicating needs and interests in ways that people from other cultures will understand is therefore a more challenging task (Adler, 2002). As mentioned elsewhere, is it good to repeat things so that the counterpart really understands the message. The repeating means to say the same thing in different ways and in a way that is easily understandable.

3. Ask lots of questions

listen with your eyes and ears It is important to always ask. As Beasor (2006) puts it... ‘if you don’t ask..., you won’t get’. A negotiator should not be afraid to ask. He should be confident and realize that the other party would not offer anything unless it is asked. Ask a lot of questions. By asking open questions instead of closed ones, a negotiator will get more precise information. Remember that talking all the time and not letting the counterpart to say anything is likely to be fatal. A negotiator has to learn not only to listen with his ears but also with his eyes. People send a lot of messages, positive or negative with their body without necessarily speaking. To interpret the other person is a very useful skill to master. Non-verbal communication is sending and receiving wordless messages. Most communication is wordless. What is often not said is more important than what is said. People communicate in terms of their physique, clothing, quality of voice (which includes tone, accent, and volume), facial expressions, posture and emotions (Buchanan and Huczynski, 2004). Non-verbal communication also includes body language. When a person is talking his body is talking at the same time. People use their face and eyes to send messages. Most people also use their hands to emphasize verbal communication. Hand gestures can be positive or negative depending on how they are used. In some cultures hand gestures have a different meaning and to avoid conflict, it is critical for negotiators to get to learn the different cultures and the way people communicate with others. Negotiators should also know when it is appropriate to maintain eye contact and to know the “space bubble” in different cultures. These are some of the main barriers to effective communication. Non verbal communication includes clothing and the environment where the communication takes place. Clothing and grooming send visual messages about the speaker. It is said that clothes make the man. A negotiator should choose his clothing well to convey the desired meaning in any negotiation process

4. Maintain personal integrity and build solid relationships

In the negotiation table the first phase is getting to know the other party and helping them to feel comfortable. Relationships matter and it is important to understand the reason why they are so important to the business. Good business relationships offer more value in the long term. It is hard if not impossible to build solid relationship in competitive negotiation situations. During relationship building, parties develop respect and trust for members of the other team (Adler, 2002). One of the biggest barriers for negotiation is lack of trust (Harvard Business Essentials). To maintain solid

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relationships, credibility is very important. Trust is built through deeds, not words (Stark, 2003). A negotiator has to do what he promised he will do and maintain the professional appearance. Trust is also developed with honesty. The negotiator should be honest also about things that may not be at his best.

5. Be patient

Being in a good mood before entering the negotiation table enables the negotiator have more confidence and is likely to be patient during the negotiation. All parties should invest a lot of time, energy, personal and spiritual commitment and other resources to ensure the best possible outcome is achieved (Hamilten, 2008). International business negotiation process is not a short process. It takes time and to achieve win-win outcome. As such, the negotiator(s) must be patient.

6. Be culturally literate and adapt to the negotiating strategies of the host environment

The biggest barriers to effective negotiation are lack of trust, cultural and gender differences, communication problems and power differentials during dialogue. It is useful for business negotiators never to assume anything as well as avoid stereotyping. Negotiators need to adapt to the negotiating strategies of the host environment by doing some research. They should plan ahead how they would start their negotiation, for example, would they want to first talk about sport or climate and how to proceed from there to the real topic. Negotiators should be aware not to talk about politics or religions which are taboo in their host environments. As mentioned earlier in this paper that the most typical factors that affects how a negotiation will play out are time, environment, personalities, information, personal issues and hierarchy. Time has a crucial impact on effective international business negotiations. The duration of a negotiation can vary across cultures, for example Americans expect negotiations to take a minimum amount of time whereas the Vietnamese prefer to move slowly (Adler, 2002). For them, everything is negotiable including deadlines. There is no need to panic if the deadlines come too near because they can be changed. But it does not mean that there is no need to work hard. The environment impacts greatly on the effectiveness of international business negotiation. The location of the meeting should be considered carefully. Should the meeting be held in your office, in counterpart's office or at a neutral location? When the meeting is in another country it will not only imply considerable cost but also reduces access to information. When hosting, it allows controlling the situation more easily. Adler (2002) states that many negotiators select neutral locations. Business negotiators often select locations that are geographically placed somewhere between each company's headquarters. When the meeting is in a neutral location, both sides travel, both sides have reduced access to information and both sides want to conclude the negotiation as quickly as possible to minimize costs.

Excercises

Activities

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1. Discuss what are the best leadership styles to your start up and why. According your choices discuss the following situations in practice. When solving the situation observe the leadership elements that you have chosen.

- A group of employee ask for salary raise
- The management complains that they are overloaded of work
- One of the employee has a great idea to improve productivity but it costs too much for your company. How would you communicate it?
- Your company obtains bad reputation thanks to misunderstanding, how would you handle it?

2. Discuss your internal evaluation strategy for your startup! What instruments would you use for gathering internal and external feedback? What set of questions would you ask from your team members/ clients and how frequent? How would you process these feedbacks and how would you integrate those results in your daily work?

3. Define the core values of your startup, reach to a 10-point internal contract that every team member can accept and sign. Discuss how these keypoints can help you implementing your long term strategy.

4. Make a search of possible investors of your startup. Upon what criteria did you choose them? Make a draft of your 3 minutes pitch and with the help of classmates try to prepare for the questions, doubts that the investors may rise after hearing it.

Self-assessment questions

1. Leadership is commanding people and delegating tasks.

- True
False

2. One of the main characteristics of democratic leadership is encouraging discussions

- True**
False

3. Leadership doesn't come naturally to everyone. leaders can practice the fundamentals of leadership on their own, but truly mastering them requires investing in a comprehensive fundamentals of leadership development program with professional coaches.

- True**
False

4. Leaders never have moments of frustration or disappointment

- True
False

5. What does accountability means in leadership?

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A, Blaming others, justifying your actions or pretending like mistakes never
B Great leaders take more than their share of blame and less than their share of credit, which creates an organizational culture of trust and humility

6. The term negotiation refers to a strategic discussion that resolves an issue in a way that both parties find acceptable

True

False

7. At the end of the negotiation one of the party will lose and the other one will win.

True

False

8. What are key techniques of negotiation?

A, Be prepared

B, Always go for win-win

C, Never compromise

9. Being direct in negotiation always pays off

True

False

10. Can negotiation techniques be improved by practicing?

Yes

No

Examination questions

1. Search on the internet some good practices in leadership
2. Identify the common leadership skills used in that good practices
3. What would be your ideal leader style and why?
4. Search on the internet some good practices in negotiation
5. What you would consider a successful negotiation based on what you have read?

Further readings and recommendations

Web links

Udemy courses to improve leadership and negotiation skills:

<https://www.udemy.com/course/matched-leadership/>

<https://www.udemy.com/course/neuromanagement/>

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<https://www.udemy.com/course/team-leadership-facilitation-and-communication-essentials/>

<https://www.udemy.com/course/negotiation-skills-and-strategies/>

<https://www.udemy.com/course/a-practical-guide-to-negotiating/>

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Unit 10: Team Management

Learning outcomes of the unit

- The learner will acquire basic knowledge about Team Management
- The learner will get familiar with different concepts and styles of Team Management
- The learner will learn about key skills and competences needed for a successful Team management

What is team management?

Team management is the key function of any organization. Team Management plays a vital role in the improvement of productivity, profitability, and service quality of any organization. There are some complex tasks which cannot be done alone. Nowadays many organizations are focusing on strengthening and improving their team management. A team is a group of people and the word management is derived from the Latin word 'manus'. Manus means a driver who will direct and control a team of horses pulling a cart. Teamwork involves forming a work culture where people working in the organization understand and believe that planning, thinking, actions, and decisions are better when done cooperatively.

Team management is the ability of an individual or an organization to administer and coordinate a group of individuals to perform a particular task. Some tasks cannot be done alone it required a collaborative approach. In the workplace the nature of the work depends on each other and which is linked in a chain pattern. If the chain of that work breaks then the work will not be completed within time and as per required efficiency. Team management is a description of the new relationships between team members. Team management is the vehicle for every employee to become a professional business manager with his or her personal goals connected with the business goals of the organization. By effective team management, people will unlock their inner potential and reinforce their expertise. The team management works well in order to overcome the risk associated with the organization.

Stages of team development

The team members don't start performing from the very beginning, they need time. It is not always that all the members would perform equally. Some of them might not get along well with their team mates or have other issues with each other. Individuals sometimes find it difficult to adjust with each other and as a result their performance suffers. Any individual fails to perform; the complete team is at loss. Team management activities ensure that all the team members work together on a common platform for a common goal.

Stage1: Forming

Forming is a preliminary stage in the process of team development. In this stage, the people come together and know each other, share there experiences and

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backgrounds. In this, some team members are excited about working and some are a little bit nervous because of this new work environment and colleagues. At this stage, a leader plays an important role to keep a eye on the team members and different activities going on in your team. It is the responsibility of the team leader to motivate the team members and direct them during work

Stage2: Storming

This is the second and also one of the most important stages in the team development process. As its name suggests, it is one of the most dangerous stages for the organization. In this, there is a disagreement between team members about the goals, vision, and approaches of team members. It is caused due to some personal or intellectual differences between the team members which leads to the conflicts among them. Such a situation is not good for any team. This will affect the productivity of the team. This disagreement and conflicts must be resolved by the team leader or manager before they moving towards the next stage. It should be resolved positively with an impartial approach to each team members.

Stage3: Norming

This is the next stage after storming. In this team consciously or unconsciously formed a relationship in the team to achieve common goals. Team members start to trust and respect each other and the team will gradually go towards the Norming stage. They resolved the conflicts and differences and appreciate the skills and knowledge of other team members. If anyone gets stuck at any problem they will tend to ask help and guidance. There is the responsibility of team leaders to direct team members to focus on the positive side of team members and should forget the differences between each other.

Stage4: Performing

It is a stage where all the team members are stable and everyone in the teamwork for a common goal of the organization. The team may be self-directed with the team leader assisting and guiding the team. When the team reaches to the performing stage, when hard work leads, without friction, to the achievement of the team's goal. The structures and processes that you have set up for the team supporting the growth of an organization.

Stage5: Adjourning

This is the final stage of team development. In this stage, the major goals of the organization are accomplished. The team may be disbanded or continued according to the requirements of the organization. In this stage, the final process and documentation work are done. But some team members found this stage difficult because of a strong bond or about the uncertainty of the future. These stages are a part of the spectrum and the team will swap between stages overtime. The team leader or manager should identify on which stage the team is, and use specific tools and techniques to maximize the efficiency of the team.

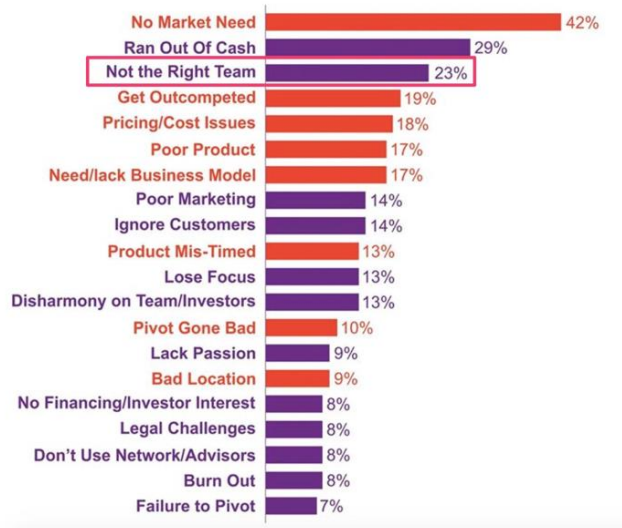
Why Team Management is important?

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According to a research conducted by earlypad.com, the third most common reason for a startup to fail is the consistency of the team and eventually the lack of its management.

Top 20 Reasons Startups Fail

Based on an Analysis of 101 Startups Post-Mortems



Source: earlypad.com

A team is the fuel that drives a project. They take tasks, and with expertise and experience, complete them according to your plan—on time and within budget. To do this requires thorough administering and coordinating. That’s easier said than done. There are objectives to meet, communication channels to create, collaboration to foster and being able to appraise your team’s performance all while in the midst of running the larger project.

The main benefit of team management are the followings:

- It helps to increase productivity and creativity among people and give better outcomes.
- When team members work collectively, this will increase work efficiency.
- Effective team management helps to achieve common goals.
- It allows every team member to learn and explore new perspectives.
- When everyone works together it will increase the satisfaction of the employee.
- Build a kind of trust between the team members.
- It helps to resolve the differences and conflicts among the team members.

Focus areas of the team management

By effective team management the following main areas could be quality checked, measured and improved:

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Productivity

Team management serves the project by getting teams to work better. This focus area is about balancing the team's workload, creating reasonable timelines, creating a supporting system and removing obstacles that prevent the team from succeeding at its tasks.

Education

Teams are not static. Most businesses probably use the same team for similar projects. The more experience the teams have, the better they'll work. Having a team that is well managed means that, as you add new team members, they will have less of a learning curve and be helped to get up to speed by the more experienced members. As teams gain experience and skills they become a more valued asset.

Morale

Giving teams what they need to do their work is not only going to increase their productivity, but their individual members will be happier. Happiness might seem insignificant in the larger business environment, but happy teams are not only more productive. They are easier to retain and mean less turnover, which saves money.

Performance

Similar to productivity, performance speaks to the larger subject of helping organizations meet their goals and objectives. Team management creates stronger teams that meet the targets of the larger organization while they work on the smaller tasks of individual projects.

Elements of a successful and effective team management

Communication

Team communication is considered as a foundation of team growth. Effective communication in a team plays a very important role in the growth of the organization. It includes the clarity about the priorities of each team member. The Feedback mechanism should be applied in a group that helps in one to one communication with team members and helps to resolve the issues. The conflicts and differences can be easily resolved by proper communication. Team members get strengthen when individuals feel empowered to express ideas in a respectful and accepting environment.

Authority

For an effective team, management requires authority which can take bold decisions for the organization. Authority means the right to command. Authority is reflected as a power in managing the work. If authority is used in a good sense and a positive manner, the whole team works smoothly with maximum productivity. Authority helps the team leader or manager to get work done from the team members with maximum efficiency. There should be no confusion about authority. It should be known to everybody who is authorized for what. Authority gives direction to the team members to work.

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Unity of Direction

In giving direction to the subordinates, there must be a uniqueness of direction. If directions of work are fixed, then efforts can be taken effectively which will give desired results. The Unity of direction is very important in Effective team management. It will save time and help to get good results. Experience always leads to unity of direction. Everybody is crystal clear about their goals in the team. Deviation from the defined path is prevented due to the unity of direction in the team.

Division of work

It is also called as a delegation of work. when work is complicated, huge, and difficult it must be divided among the team members. Due to the division of work team members get less variation in work. Due to which skilled people make effective concentration on their work. The work gets completed in time with better quality. So for effective team management division of work is a very essential principle. This will make the ultimate utilization of human resources.

Unity of command

It is popularly known as one boss' principle. When the Higher authorities are more than one, then there is a possibility of different guidelines to the team members. This may create misunderstanding and confusion among the team members. So there should be only one team leader who will properly command the team. It avoids unnecessary discussions and brainstorming. It leads to a fixed way of working.

Initiative

Initiative means to start any work with enthusiasm. Every team member takes the initiative to accomplish the goals and vision of the organization. Difficult things are not possible if there is no initiative among the team members. Initiative leads to new horizons of work. a Good initiative is always followed by support and teamwork by the others. a Good team is always enthusiastic to initiate things whenever there is a difficult situation in front of the complicated problems and big tasks can be finished easily and in less time if there are quick initiative and support to that initiative by others. Top-level initiative leads to the progress of the Organization. Team members having good initiative need less motivating efforts from others.

Stability

There should be stability among the team members. Stability is mainly concerned with economic stability, workload stability, work area stability, and team stability. This creates secure feelings among them which allows them to work with more concentration. Stability helps in the uniform growth of the organization. There will be less insecurity among the team members.

Equity

Equity is the most important and good characteristic feature of team Management. Team management should not forget equity and humanity. It gives dignity to each team member. Equity does not mean equal wages but it means no discrimination in the

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treatment to the individual. Due to equity employees feel like a family in the organization.

Culture of ideas and innovation

When a team works well together, colleagues feel more comfortable offering suggestions and ideas. A respectful and trusting team environment will not only enable colleagues to think more creatively, but will lead to more productive and collaborative brainstorming sessions.

Rewarding

Safe risks can be extremely valuable to overall team success and enhancing employee innovation. To create an environment that encourages healthy risk taking, it's important to first clarify what smart risks are and ensure that employees understand they will not be judged or punished for taking risks – even if they don't turn out how they expected them to. In addition to leading by example, praising team members for taking healthy risks will also contribute to a more innovative workplace culture that drives effective teamwork.

Team management techniques

For the team members, their team must be their priority and everything else should take a back seat. They should be very focused on their goals. To achieve, as a the following team management principles should be examined and followed:

- **For effective team management, it is important that the team leader is more of a mentor to the team members rather than just being a strict boss.** New trends shows that employees share a healthy relation with their superiors and the comfort level has increased to a large extent.
- **Ensuring that every team member willingly participates in team discussions.** Debates are important and can be productive. Suggestions must be invited from all and do not discuss issues separately with individuals. Opening forums and formulate strategies keeping in mind every body's inputs is a great team management effort. Poilicies should be made best suited to all. The objective of the team must be clearly set and circulated among all the team members. Everyone should be aware of their roles and responsibilities in the team.
- Communication among the team members must be clear and transparent for an effective team management. **Every team member should get the same information and should have an easy access to the superiors in case of any query.**
- **The team members must not pass on any information to anyone outside the team.** Discretion policies are essential to any business. It is unethical to share professional secrets with others. Leak information or any confidential data can break the trust that has been built within a team.
- **The team members must be motivated on a regular basis.** Performance appraisals, perks, incentives, trophies, prizes are all instrumental in motivating the team members to perform even better the next time. What is highly suggested to be avoided is criticizing other team members.

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- **Loose talks, blames, politics have no place in the team.** They spoil the environment and people lose interest in their work and organization. Face to face clarification can lead to solution otherwise, ignore.

It is easy to create a team but it is actually difficult to bind the team members together and even make them work. Team management techniques help in strengthening the bond among the employees and creating an environment where they can trust each other.

Team of a startup

According to Neil Patel (well known entrepreneur, the co-founder of Crazy Egg and Hello Bar) here is 5 golden rule that it is important to consider when managing a team:

1. Start with the individuals: self-awareness is the foundation of everything. Knowing one’s strength and areas that one needs to improve.

2. Hiring action-takers is essential: No business has ever taken off based on an idea, it is execution that transforms an idea into a legitimate, revenue-generating business.

3. Don’t build a team for a startup: a bit of a contradiction but the startup phase is temporary. While it’s true that many businesses don’t make it past that initial phase, that’s not what a good team’s trajectory to be.

4. Consider the importance of customer service: Customer service should not be the sole responsibility of one department in a business. Every team member should be driven by a desire to do right by the end consumer.

5. Personalities do matter: A sure way to sink a startup is to hire team members who don’t get along. Constant friction will get in the way of the work that needs to be done.

What are the typical roles and expertise in a start up?

CEO – The role of the CEO is crucial for the success of any newborn project: he or she is promoting the idea, inspiring and supporting the team, handling negotiations with investors and partners, and creating a big picture and strategy for the team. At the beginning of your journey, everything depends on the CEO: the processes need to be tended manually, and team productivity depends a lot on inner relations, communication, etc. Hence, the CEO’s mindset, charisma, people and management skills, and faith in the idea will pave the way further.

CTO – CTO plays a big role in startup development as well. It’s a person in charge of all technical aspects of your startup, from choosing the right set of technologies to implement your idea to interviewing and hiring other developers. Every startup operates in its own way, so it is quite possible that a CTO will need to code

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themselves. Another common question regarding CTO is whether a startup should go for outside hire if there is no co-founder who is a tech person.

CFO – This executive is in charge of a company's financial operations. A CFO's responsibilities include internal and external financial reporting, stewardship of a company's assets, and ownership of cash management. Increasingly, the role is more forward-looking and expanding to incorporate strategy and business partnership. Often, together with the CEO they have shared responsibility when it comes to Human resource or legal advisory.

CMO - A chief marketing officer (CMO) is the corporate executive responsible for an organization's marketing activities. The CMO's primary responsibility is to generate revenue by increasing sales through brand management, marketing communications, pricing and customer service.

Bonus: How to build high performing teams?

„Effective teams comprise members who elicit the best from one another. They are diverse enough to supplement and stimulate the team and similar enough to understand each other and interact well” (Wageman et al., 2005, 2008). Balanced diversity thus the teams different competencies and skillsets are the key for a successful team. Belbin's team roles are can be a support for setting up such an effective team.

Dr. Meredith Belbin defines a 'Team Role' as one of nine clusters of behavioural attributes identified by his research at Henley as being effective in order to facilitate team progress. Meredith Belbin's research showed that the most successful teams were made up of **a diverse mix of behaviours**. To build high-performing teams, we need to represent each of the nine Belbin Team Role behaviours at the appropriate times.

The nine Belbin Team Roles are:

- Resource Investigator
- Teamworker
- Co-ordinator
- Plant (Social roles)
- Monitor Evaluator
- Specialist (the Thinking roles)
- Shaper
- Implementer
- Completer Finisher (the Action or Task roles)

You can find more detail about each Team Role below:

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Resource Investigator

Uses their inquisitive nature to find ideas to bring back to the team.

Strengths: Outgoing, enthusiastic. Explores opportunities and develops contacts.

Allowable weaknesses: Might be over-optimistic, and can lose interest once the initial enthusiasm has passed.

Don't be surprised to find that: They might forget to follow up on a lead.

Teamworker

Helps the team to gel, using their versatility to identify the work required and complete it on behalf of the team.

Strengths: Co-operative, perceptive and diplomatic. Listens and averts friction.

Allowable weaknesses: Can be indecisive in crunch situations and tends to avoid confrontation.

Don't be surprised to find that: They might be hesitant to make unpopular decisions.

Co-ordinator

Needed to focus on the team's objectives, draw out team members and delegate work appropriately.

Strengths: Mature, confident, identifies talent. Clarifies goals.

Allowable weaknesses: Can be seen as manipulative and might offload their own share of the work.

Don't be surprised to find that: They might over-delegate, leaving themselves little work to do.

Plant

Tends to be highly creative and good at solving problems in unconventional ways.

Strengths: Creative, imaginative, free-thinking, generates ideas and solves difficult problems.

Allowable weaknesses: Might ignore incidentals, and may be too preoccupied to communicate effectively.

Don't be surprised to find that: They could be absent-minded or forgetful.

Monitor Evaluator

Provides a logical eye, making impartial judgements where required and weighs up the team's options in a dispassionate way.

Strengths: Sober, strategic and discerning. Sees all options and judges accurately.

Allowable weaknesses: Sometimes lacks the drive and ability to inspire others and can be overly critical.

Don't be surprised to find that: They could be slow to come to decisions.

Specialist

Brings in-depth knowledge of a key area to the team.

Strengths: Single-minded, self-starting and dedicated. They provide specialist knowledge and skills.

Allowable weaknesses: Tends to contribute on a narrow front and can dwell on the technicalities.

Don't be surprised to find that: They overload you with information.

Shaper

Provides the necessary drive to ensure that the team keeps moving and does not lose focus or momentum.

Strengths: Challenging, dynamic, thrives on pressure. Has the drive and courage to overcome obstacles.

Allowable weaknesses: Can be prone to provocation, and may sometimes offend people's feelings.

Don't be surprised to find that: They could risk becoming aggressive and bad-humoured in their attempts to get things done.

Implementer

Needed to plan a workable strategy and carry it out as efficiently as possible.

Strengths: Practical, reliable, efficient. Turns ideas into actions and organises work that needs to be done.

Allowable weaknesses: Can be a bit inflexible and slow to respond to new possibilities.

Don't be surprised to find that: They might be slow to relinquish their plans in favour of positive changes.

Completer Finisher

Most effectively used at the end of tasks to polish and scrutinise the work for errors, subjecting it to the highest standards of quality control.

Strengths: Painstaking, conscientious, anxious. Searches out errors. Polishes and perfects.

Allowable weaknesses: Can be inclined to worry unduly, and reluctant to delegate.

Don't be surprised to find that: They could be accused of taking their perfectionism to extremes.

(Source: <https://www.belbin.com/about/belbin-team-roles>)

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It is worth mentioning that it's not always necessary to have all Team Roles working simultaneously. It's important to consider the team objectives, and then work out which tasks need to be undertaken. Once this has been done, discussions can take place regarding how and when each Belbin Team Role behaviour should be utilised.

Exercices

Activities

1. What are the tasks and responsibilities of a CEO, CTO, CFO and CMO? List as many task as you can! Based on what criterias you would choose people for these roles?
2. What are the key strengtsh of an ideal CEO, CTO, CFO and CMO?
3. Based on your skills, competences and a freely chosen personality test identify yourself as one of the executives in your startup. Who would you be?
4. Identify the skillset within of your team. Identify new roles and its's tasks if it is needed.

Self-assessment questions

1. Does "group" and "team" is the same mean the same?

True

False

2. Team management activities ensure that all the team members work together on a common platform for a common goal.

True

False

3. What aspects of the team can be improved by team management?

Happiness

Productivity

Mood

4. Performance appraisals, perks, incentives, trophies, prizes are all instrumental in motivating the team members to perform even better the next time.

True

False

5. Criticism is a great tool to motivate team members to perform better

True

False

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6. They are the ones who take on the traditional team-leader role and have also been referred to as "chairperson." They guide the team to what they perceive are the objectives. They're often excellent listeners, and they're naturally able to recognize the value that each team member brings to the table. They're calm and good-natured, and delegate tasks very effectively. But who are they?

A, Coordinator

B, Plant

C, Specialist

7. Which one of the following role are not action oriented?

A, Shaper

B, Implementer

C, Monitor- evaluator

8. Teams can become unbalanced if all team members have similar styles of behavior or team roles.

True

False

9. Which skills are helping transparency within a team?

A, Good communication skills

B, Good listening skills

C, Good digital skills

10. What doesn't contribute to an effective team management?

A, Micromanagement

B, Rewarding the team

C, Creating a culture of ideas and innovation

Examination questions

1. In your opinion what makes a team a good one?

2. Do you think you would be a good leader? If yes/no, then why?

3. Identify your "team role" style and try to list your strength and weakness? Does the Belbin types apply to you?

4. Do you think forming a team within a workplace is it important? If yes/no, then why?

5. Search for best practices for collaborating as a team online! What is the most common trait of these best practices?

Further readings and recommendations

Web links

The role quiz based on Belbin's study:

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<https://www.belbin.com/resources/free-belbin-test-looking-for-a-free-team-roles-test>
(one time free)

Another test to identify your team role:

<https://quizterra.com/en/test-belbina-kakova-vasa-rol-v-komande-2>

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Unit 11: Marketing

Learning outcomes of the unit

After completing this unit, students should be able to:

1. Explain basic marketing concepts
2. Formulate marketing and campaign plans
3. Utilise digital solutions for marketing activities

Basic marketing concepts

Marketing definition

The marketing function is core to any organisation. According to the official definition from the American Marketing Association, approved in 2017, "Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large." (AMA, 2017). It is important to note that marketing is a "continuous iterative process of listening to customers, understanding their needs and offering products or services that satisfy these needs" (Heinze, Fletcher, Rashid, and Cruz, 2020).

The main types of traditional marketing strategies include:

- **Outdoor Marketing:** public displays of advertising external to a customer's house, such as billboards, sticker wraps on vehicles, or advertisements on public transit.
- **Print Marketing:** small, easily printed content that is easy to replicate. Traditionally, companies mass-produced printed materials, as the printed content was the same for all customers. Today, more flexibility in printing processes means that materials can be differentiated.
- **Direct Marketing:** specific content delivered to potential customers, such as coupons, vouchers, or pamphlets. Some print marketing content could be also mailed to customers.
- **Electronic Marketing:** use of TV and radio for advertising when, a company can broadcast information to a customer through video or audio and may grab attention better than a printed through short bursts of digital content.
- **Event Marketing:** attempting to gather potential customers at a specific location for the opportunity to present products and services. Events include conferences, trade fairs, seminars, or private events.

Impact of technologies on marketing – Digital Marketing

The widespread availability of digital technologies, especially personal computers with user-friendly internet browsers, significantly transformed marketing activities by introducing new space for marketers with various options to offer products and services to customers, i.e. digital marketing. Digital marketing is defined as "*Achieving marketing objectives through applying digital media, data and technology.*" (Chaffey, 2023)

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The most popular ways to market online include:

- **Search Engine Marketing:** companies attempt to increase search traffic in two ways. First, marketers can pay search engines for placement on result pages (called paid search advertising, Pay-Per-Click, or PPC). Second, marketers can implement search engine optimisation (SEO) techniques to rank high on search results organically.
- **E-mail Marketing:** companies obtain customer or potential customer e-mail addresses and distribute messages or newsletters. These e-mail messages can include coupons, discounts, or advance notice of upcoming sales.
- **Social Media Marketing:** developing an online presence on social media platforms. Like search engine marketing, marketers can promote their content through advertising to obtain a higher chance of being seen by social media platform users. Otherwise, they can attempt to grow visibility of their content organically by posting it and interacting with followers.
- **Affiliate Marketing:** using advertising on third-party websites (called affiliates) to drive customer interest. Usually, an affiliates get a commission from a sale and thus incentivised to drive a sale.
- **Content Marketing:** creating content, such as eBooks, infographics, video seminars, or other content that is interesting valuable to potential customers. However, this content (usually free) contains information or references about a product, and is used to obtain customer information, and to encourage customers to continue relationship with the company beyond the content.

The list above is but a sample of options enabled by digital technologies for marketing. Digital channels for marketing communication nowadays integrally complement traditional marketing communication channels (See Figure 1)

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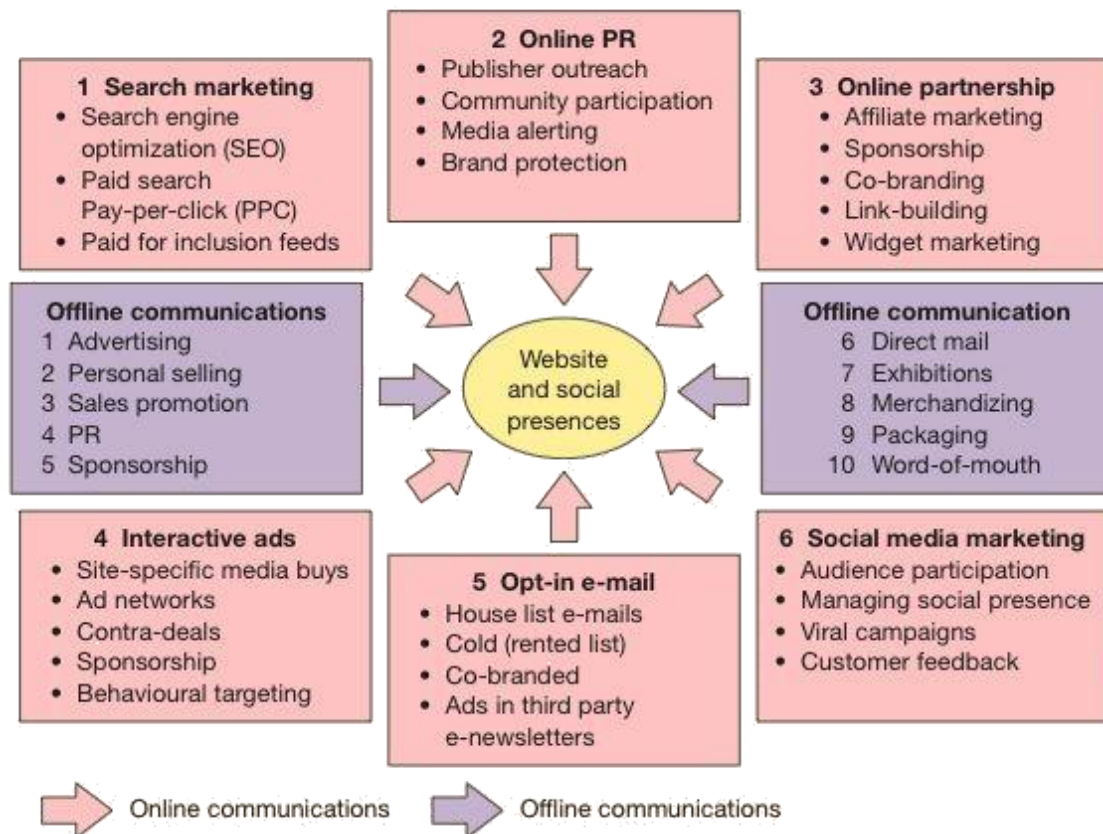


Figure 1. Digital marketing channels (Chaffey and Ellis-Chadwick, 2022)

Since the first calculation of available marketing technologies (also known by the term Martech) in 2011, which listed 150 solutions, there are now over 11000 available solutions, which means over 7000% growth in number (you can check the current count and landscape of available Martech on martechmap.com). Though this provides options for marketers to choose from, it also means challenges related to efforts to find solutions best for their organisation.

Marketing mix

Marketing mix is a tool marketers use to determine the offering of a product or brand. It is also essential for planning marketing activities to define the marketing mix well. Classical Marketing Mix contains 4Ps:

- Product - The Product should fit the task customers want it for, it should work and it should be what the customers expect.
- Place – The product should be available from where your target customer find it easiest to buy. This may be e-shop, neighbourhood grocery store, High Street.
- Price – The product should always be perceived as good value for money. This does not imply it should be the cheapest available, as customers are often happy to pay more for something that works well for them.
- Promotion – advertising, PR, sales promotion, personal selling offline and online are all key communication tools for an organisation used to put across

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the organisation’s message to the target audiences in the way they would like to hear, e.g. informative or appealing to their emotions.

Later this model was extended to 7Ps by adding 3 additional elements:

- People – all organisations are reliant on all the people who work there. Having the right people is essential because they are as much a part of business offering as the products/services offered.
- Processes – the delivery of services is usually done with the customer present. Therefore, the process of delivering services is once again part of what the customers are paying for.
- Physical Evidence – majority of services include some physical aspects even if the major part of what the customers are paying for is intangible. For example, even if airline is sending a boarding pass as email and it is not physically printed, customers are still receiving a “physical product” by this definition.

Since use of digital technologies for marketing increased, literature offers many more models for defining marketing mix, however, it is safe to stick with at least 4P or 7P models. Following figure illustrates how using internet changes marketing mix within 7P model and lists aspects to be defined in marketing mix of your organisation nowadays.

Using the Internet to vary the marketing mix						
Product <ul style="list-style-type: none"> • Quality • Image • Branding • Features • Variants • Mix • Support • Customer service • Use occasion • Availability • Warranties 	Promotion <ul style="list-style-type: none"> • Marketing communications • Personal promotion • Sales promotion • PR • Branding • Direct marketing 	Price <ul style="list-style-type: none"> • Positioning • List • Discounts • Credit • Payment methods • Free or value-added elements 	Place <ul style="list-style-type: none"> • Trade channels • Sales support • Channel number • Segmented channels 	People <ul style="list-style-type: none"> • Individuals on marketing activities • Individuals on customer contact • Recruitment • Culture/image • Training and skills • Remuneration 	Process <ul style="list-style-type: none"> • Customer focus • Business-led • IT-supported • Design features • Research and development 	Physical evidence <ul style="list-style-type: none"> • Sales/staff contact experience of brand • Product packaging • Online experience

Figure 2. Marketing mix (Chaffey and Ellis-Chadwick, 2022)

Marketing planning

A marketing plan is a document that specifies organisation’s target markets, marketing objectives, tactics, and activities to achieve them, timeframes and the resources to be utilised, according to defined budgets (Smart Insights, 2023). In smaller organisations, the scope of a marketing plan is often annual and covers the whole business. In larger organisations, the scope might vary, depending on variety of organisational factors, such as width of product and service assortment, geographical reach, focus on different customer segments, business units, etc. Next you will learn about different levels of marketing planning and basic structure of marketing plan that could be used by any size of organisation.

Process of marketing planning

Marketing planning is not isolated activity, as to achieve marketing goals and reach highest benefits from marketing, it should be aligned and integrated within cascading hierarchy of plans for the organisation (see figure below)

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Figure 3. Different levels of plans, based on Fig 4.1 in Chaffey and Ellis-Chadwick, (2022). Digital Marketing. 8th ed.

There are many different plan types to consider to make best use of marketing in your organisation. They are needed to specify different types of goals and tactics to implement them (see Table 1).

Table 1. Different types of marketing plans (adapted from Smart Insights, 2023)

Type of plan	Purpose	Scope and content
Business	Define strategies for growing profitability over a long-term period	Annual to three-yearly - New product development - Revenue sources and cost management
Marketing	Define strategies to engage audiences to achieve business objectives	Typically annual
Brand marketing	Define audience engagement to achieve brand sales	Typically annual
Digital marketing / Digital transformation	Define how to compete more effectively with digital marketing	Typically annual Transformation plans may be longer - Review digital capabilities - Define digital marketing technology - Define resource requirements for digital
Multichannel marketing	A long-term integrated communications plan for using different digital media to hit lead or sales targets	Annual plan - Engaging audiences - Content marketing - Integrated media schedule of always-on and campaign activities
Marketing campaign plan	A shorter-term integrated communications plan for using different digital media to hit lead or sales targets	Shorter-term plan - Engaging audiences - Content marketing - Integrated media schedule

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90-day marketing management plan	A short-term plan of activities to review and optimise activities need to hit targets for other plans	Review of actions - Covers always-on and campaign activities
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Marketing plan structure

Marketing literature offers variety of approaches to planning marketing, which in turn informs of expected marketing plan structure. Choice of an approach will depend on the needs of the marketer in the organisation.

SOSTAC® framework proposed and popularised by PR Smith is widely used tool for marketing and business planning. The mnemonic SOSTAC® stands for stands for **Situation, Objectives, Strategy, Tactics, Action** and **Control**, which mean the following:

- Situation: Where are we now?
- Objectives: What do we want to achieve?
- Strategy: How are we going to achieve it?
- Tactics: What do we need to do?
- Action: Who's going to do it, when and how?
- Control: How do we measure it?

RACE framework is another widely used approach for planning marketing activities. It was proposed by Smart Insights in 2010. The RACE mnemonic stands for (*Plan*) > *Reach* > *Act* > *Convert* > *Engage*. The framework is customer-centred: “It follows the established customer lifecycle of relationship building or marketing funnel from creating awareness; generating leads from new prospects; converting prospects to sale (online or offline) and encouraging loyalty, repeat sales and advocacy” (Chaffey, 2023).

To make the RACE planning framework actionable, Smart Insights also propose to follow OSA process to create your overall strategy and improve the results of individual channels. OSA stands for Opportunity > Strategy > Action and covers (Chaffey, 2023):

- Opportunity
 - Audit performance
 - Review marketplace
 - Key issues summary
 - Set objectives
- Strategy:
 - Review marketing and digital strategy options
 - Assess budget / business case
 - Prioritise and select strategic initiatives
- Action:
 - Plan 90-day activities
 - Implement plans
 - Review results

Following are the steps for marketing planning that any size organisations could apply that were proposed by A. Hanlon (2023) in relation to OSA process:

- Step 1. Customer analysis (Opportunity)
- Step 2. Marketing audit (Opportunity)
- Step 3. Create sustainable objectives (Opportunity)
- Step 4. Segment your customer base (Strategy)
- Step 5. Target new customers and position your business (Strategy)

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- Step 6. Create your marketing action plan (Action)
- Step 7. Monitor, manage and improve (Action)

Step 1: Customer analysis

Knowing your customers is essential for success of marketing activities. Refer to Customer analysis report you develop in Unit 6: Market Analysis.

Step 2. Marketing audit

As you know your customers, the next step is a audit of the organisation. Refer to Market Analysis, Industry Analysis, and Competitive Analysis reports you develop in Unit 6: Market Analysis.

For competitive analysis, you might want here to pay extra attention to their marketing activities, and therefore check not only direct competitors, but also indirect ones:

- Well known local competitors
- Well known international competitors
- New local and international digital businesses (e.g. unicorns) not only from same industry, but also from other industries.

Analysing marketing activities of competitors should enable you to identify best, worst and next practices.

Besides benchmarking against competitors based on marketing mix, do remember to compare in detail on their marketing activities across various channels offline and online (TV, print, radio, outdoor, event, search advertising, social media marketing, affiliate marketing, website features, etc.).

Step 3. Create sustainable objectives

Identify the marketing objectives for the organisation. Consider, what would organisation like to achieve or accomplish through marketing activities. Chaffey and Smith (2017) proposed 5S framework benefits of digital marketing, which can also be applied to marketing in general (See Table 2)

Table 2. The 5S goals of (digital) marketing (adapted from Chaffey and Ellis Chadwick, 2022):

Benefit of (digital) marketing	How benefit is delivered	Examples of typical objectives
Sell – grow sales	Includes direct online sales transactions and sales from offline channels (influenced online)	Achieve 10 per cent of sales online Increase online sales in product category by 20 per cent in one year
Speak – get closer to customers	Encourage interaction (online) using (inbound) marketing techniques such as search and social media marketing, and understand audience needs	Increase website visits or social media page followers by 10 per cent within one year
Serve – add value	Provide content and offers to encourage interactions leading to sales	Increase subscribers to newsletter by 10 per cent within quarter

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Save – save costs	Reduce offline media spend and customer service through using organic inbound marketing techniques Reduce customer support costs by ‘web self-service’ where customers answer queries online	Reduce cost of customer acquisition by 10 per cent Reduce cost-to-serve per customer by 10 per cent
Sizzle – extend the brand online	Improve the customer experience by offering new (digital) value propositions, exclusive online offers and customer communities	Improve brand metrics such as brand awareness, brand familiarity, favourability and purchase intent

Remember, that same as marketing plan needs to be integrated and support the business plan of your organisation, marketing objectives should help achieving business goals.

The marketing objectives should be defined as SMART. SMART stands for Specific, Measurable, Attainable, Relevant and Time-Bound (See Figure 4).

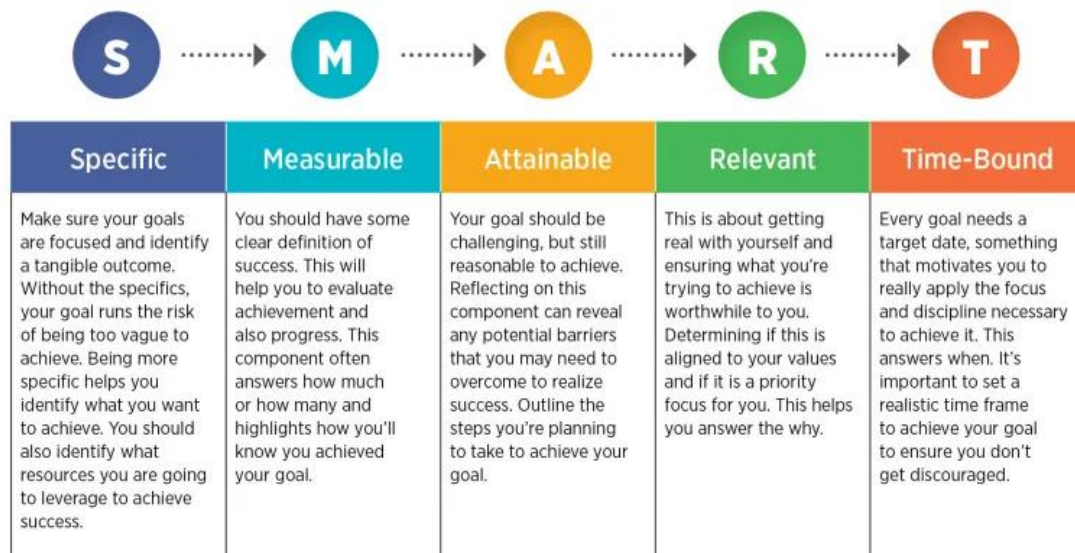


Figure 4. The logic of developing SMART objectives (Think Marketing Magazine, 2012).

This section should also outline marketing budget needed and approach to set it:

- Goal focussed (you start from marketing objectives and then estimate the budget needed to achieve them)
- Restricted by budget (you start with given or estimated budget and estimate what you can achieve with it and target as marketing objectives).

Step 4. Segment your customer base

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Based on the customer analysis, identify customer segments, develop their personas and map customer journeys for each customer segment (See Unit 6: Market Analysis on details). You can use the SUPERB mnemonic to identify your customer segments:

- Size – Is the market large enough to justify segmenting?
- Unique – Do measurable differences exist between segments?
- Profits – Do anticipated profits exceed the costs of additional marketing plans and other changes?
- Easy Access – Is each segment easily accessible to your team?
- Reaction – Is the market able to react to your communications?
- Benefits – Will the different segments need different benefits?

For marketing purposes you might identify different target audiences than for the product itself. E.g. in some cases effectively marketing to males and females, or children, adults and seniors about same product might require different approaches though gender or age might not be relevant in terms of consumption of the product. Similarly approaches of attracting first-time customers and communicating with existing customers might differ too throughout their customer journeys. For digital marketing aspects, pay attention to customers behaviour online as well (e.g. their access to internet, devices they use, internet browsing habits, etc.)

Step 5. Target new customers and position your business

This step might not be immediately relevant as you are working on marketing plan for startup and are more interested in launching the product and gaining market share. However, it might be useful to think ahead on direction marketing activities could grow to over time. These are possibilities to :

- Market Penetration Strategy: sell more of existing products or services to existing customer base
- Market Development Strategy: introduce existing product range to a new customer group
- Product Development Strategy: augment or improve the existing product offer
- Diversification Strategy: move into a new market with a new product offer using the skills within the business.

Once you decide on direction, detail the decision: which new customers could be reached? Or what augmentations of the product are envisioned?

Step 6. Create your marketing action plan

This is the operational part of marketing plan there you identify which tasks should be done by whom and when to achieve the marketing objectives. Ideally this part should have the answers to 5W questions: Why? What? Who? Where? When?

In this section you should define your:

- marketing mix, including
- communications mix (which channels should be used), what happens when?
- details of contact strategy (collecting contact data of your customers),
- campaign initiative schedule;
- responsibilities and structures
- internal resources and skills
- external agencies.

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The action plan should be aligned with and targeted at customer segments (target audiences, or even better having Personas in mind):

- Choose channels that support organisations vision, mission, goals and activities.
- Plan content that encourages interactions and engagement from users, not only communicating information.
- Collect Feedback and data in order to optimise and improve marketing efforts.

Marketing budget distribution for various channels/campaigns, as well as forecast of expected volume of sales (and revenues) is expected from each channel in communication mix, would be useful in this section too.

Step 7. Monitor, manage and improve

Plan which metrics and indicators will be tracked, how and how often performance of marketing activities will be measured, tracked and assessed throughout implementation of the marketing plan.

Most important indicators and metrics to monitor would be the ones directly linked to marketing objectives (e.g. sales). However, it is also important to track leading indicators (e.g. visitors, leads), and channel specific metrics that would inform you during implementation of the plan if the channel is effective in contributing to the goals of marketing, or is it being used ineffectively. E.g. digital advertising indicator as click-through-rate (CTR) should not be used as overall KPI in marketing plan objectives, but in paid online advertising it would indicate if the advertising on specific channel is not set up appropriately. Therefore tracking such indicator would enable to adjust advertising by optimising it or making other decisions, such as re-allocating marketing budget to other channels if

Exercises

Activities

Before you continue with the activities listed below, it is imperative, that you do complete Unit 6: Market Analysis activities.

Activity 11.1: Define Marketing Mix

Goal of this activity is to define marketing mix of your organization or product or service offered.

1. Select one of the approaches for defining Marketing mix (e.g. 4P or 7P described above).
2. Define all elements of Marketing Mix as specifically and as much detail as possible. If relevant, consider digital marketing aspects related to the marketing mix.

Activity 11.2: Set SMART marketing objectives

Goal of this activity is to set marketing objectives for your marketing plan.

1. Consider how marketing activities could help organization achieve it's goals.
2. Identify 2-3 major objectives what marketing activities you are planning would enable you to achieve. Objectives you identify should be SMART (Specific, Measurable, Attainable, Relevant, and Time-bound).

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You can use [HubSpot template](#) to help you craft SMART goals.

3. Judge critically which level objectives did you develop? Are they marketing plan, communication plan, or campaign level?

Activity 11.3: Define target audiences & develop their personas

Goal of this activity is to define target audiences for you marketing plan.

1. Check Customer Analysis you did in Unit 6: Market Analysis and define target customer segments. Consider if there might be more marketing target audiences or split differently compared to customer segments. Remember, that target audiences for marketing activities might differ from customer segments of the product. If needed, search for additional information helping you clearly and specifically identify whom do you intend to promote and sell the product to. For target audiences to be targeted with digital marketing also analyse how they are potentially using content online (in which context, what devices, which digital communication channels they prefer, etc.).

2. For each target audience develop at least one Persona. Well developed Personas should feel like realistic human person (not a company) with enough detail to make it relatable that this person might be interested in the products or services of the organization.

You can use [HubSpot](#) online tool to develop the Personas.

Activity 11.4: Develop marketing action plan

Goal of this activity is to develop operational action plan for your marketing activities.

1. Consider customer Personas you have developed earlier (they needs, expectations, manner in which they prefer to communicate offline and online, touchpoints that they might encounter communication about your organizations brand or products).

2. Consider what kind of content and on which channels you should place to be noticed by potential customers and get them in stage of the funnel, from Awareness to Retainment. Take into account marketing objectives as well Fill out such a table:

Stage	Reach Awareness - ToFu	Act Evaluation of alternatives - Mofu	Convert Decision to buy- BoFu	Engage Retainment - RoFu
Content				
Channels				

3. Use the outputs from table above to list actions and tasks to be performed to achieve the goals of marketing plan and reach target customers. Be sure this list includes answers to 5W questions: Why? What? Who? Where? When?

Why?	What?	Who?	When?
Where? Campaign or channel			

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Goals/objectives	Actions / Tasks	Responsible persons and resources needed	Timeframe
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You can use the table above as the basis or Ghant chart tool or template of your choosing.

Self-assessment questions

1. Traditional marketing and digital marketing are essentially the same. True **False**
2. Marketing is independent business function that does not require alignment with other function such as finances or production. True **False**
3. Digital marketing is about achieving marketing objectives through applying digital media, data and technology. **True** False.
4. Marketing objectives of an organisation should be aligned with business goals. **True** False.
5. Knowledge about customers and their needs is of significant importance for marketing activities. **True** False.
6. Target audiences for marketing activities and customer segments of an organization products or services always match. True **False**
7. Digital technologies are few and changing slow enough not to pose any challenges to the marketers. True **False**
8. Once you start implementing a marketing plan, you are still expected to make corrections to improve results and better achievement of the marketing objectives, and thus business goals. **True** False.
9. Personas are accurate representations of anonymised but real customers. True **False**
10. It is good practice to select just one indicator or metric per marketing objective in Step 7: Monitor, manage and improve of marketing plan. True **False**

Examination questions

1. What is the main difference between traditional marketing and digital marketing?
2. What are the main channels of marketing?
3. Why marketing plan should be aligned and integrated with other plans of an organization?
4. What is the importance to plan how, how often and what should be tracked in marketing activities for the marketing plan?
5. What is the role of knowing the customers in planning marketing activities

Further readings and recommendations

Further readings

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Web links

Tools, templates and guides on Marketing. <https://www.smartinsights.com>

Marketing Technology Map interactive search tool martechmap.com

Dave Chaffey’s list of Useful links for students studying digital marketing

<https://www.davechaffey.com/useful-links-for-students-of-digital-marketing/>

Google’s page for sharing marketing related ideas, insights and inspirations. Think with Google, <https://www.thinkwithgoogle.com>

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Unit 12: International logistics

Learning outcomes of the unit

1. Identify the specific logistics needs of a start-up.
2. Analyze the various stages of the supply chain and understand the interactions among the involved stakeholders.
3. Implement effective inventory management strategies

Introduction

Logistics plays a vital role in the success and growth of a startup. It encompasses a set of activities and processes aimed at effectively and coordinately managing the flow of raw materials, finished products, and information throughout the supply chain. For a startup, well-managed logistics can be a key factor in improving operational efficiency, reducing costs, accelerating delivery times, and providing a quality customer experience.

Logistics is a complex process that includes several essential elements for a startup:

Procurement: This is the stage where the company sources raw materials or products necessary for production or service delivery. Effective procurement management enables the startup to maintain optimal stock levels, avoid shortages, and benefit from competitive prices from suppliers.

Storage: Storage involves managing stocks of finished products or raw materials. Good warehouse management allows the startup to have accurate inventory, minimize storage costs, and maximize product availability to meet customer demand.

Transportation: Transportation refers to the physical movement of goods between different points in the supply chain, from suppliers to customers. Well-organized logistics ensure efficient transportation by selecting suitable transport modes for the company's needs and optimizing routes to reduce delivery times and costs.

Distribution: Distribution involves delivering products to end customers. Well-managed distribution ensures customer requirements are met in terms of delivery times, packaging, and shipment tracking.

Case studies of young companies that have successfully optimized their logistics:
Several young companies have successfully optimized their logistics to gain a competitive advantage and drive growth. For example:

The startup "XpressFood" optimized its home meal delivery logistics using intelligent routing algorithms. This allowed them to reduce delivery times and offer a faster and more reliable service compared to their competitors.

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The company "TechGadgets" implemented an AI-based inventory management system to anticipate demand trends and adjust stock levels accordingly. This helped them minimize storage costs while avoiding stockouts.

The startup "GreenCycle" adopted sustainable logistics practices, using eco-friendly packaging and favoring local suppliers to reduce their carbon footprint. This approach was appreciated by environmentally-conscious customers, contributing to their growth and reputation.

These examples demonstrate how effective logistics management can contribute to the success and sustainability of startups. By optimizing procurement, warehousing, transportation, and distribution processes, young companies can enhance their competitiveness in the market and provide an exceptional customer experience.

Procurement:

Logistics plays a crucial role in the success and growth of a startup. It encompasses a range of activities and processes aimed at efficiently managing the flow of raw materials, finished products, and information throughout the supply chain. For a startup, effective logistics can be a key factor in improving operational efficiency, reducing costs, accelerating delivery times, and providing a quality customer experience.

This involves ensuring that a commercial enterprise has the goods it needs to meet customer demand or that an industrial enterprise has the necessary raw materials and supplies for manufacturing finished products. The procurement policy can be based on sales forecasts or production schedules.

Different approaches to procurement can be employed:

1. Single procurement for an entire fiscal year.
2. Periodic procurement at regular intervals (weekly, monthly, quarterly, semi-annually) for varying quantities based on demand.
3. Constant procurement for fixed quantities at irregular intervals.
4. Procurement based on specific, immediate needs.

The procurement policy influences the level of "zero stock" as replenishment is only done when needed. This approach is referred to as "just-in-time" or "lean" flow. It is widely used by companies in the automotive sector. However, startups employing this approach must ensure that suppliers and transporters can deliver the necessary items without delays. This practice shifts the burden of storage to subcontractors, making them highly dependent on their customers' needs.

Regardless of the chosen procurement policy, proper delivery management must be planned and organized, requiring continuous monitoring.

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Costs associated with procurement:

The process of managing orders incurs variable expenses based on the number of orders placed. This includes order placement costs or order launch costs, such as personnel expenses, administrative and logistical tracking, transportation charges, reception, and handling costs.

Maintaining a stock incurs storage-related expenses, including storage costs or inventory holding costs, which involve expenses for insurance, surveillance, equipment depreciation, rental and maintenance of facilities, charges related to the loss or deterioration of stored items, etc.

The total annual inventory management cost is the sum of the order placement costs and the inventory holding costs for that year.

Forecasting errors in procurement or delivery delays can lead to costly shortages of goods or raw materials, both from an industrial and commercial standpoint, known as stockout costs or shortage costs.

Different stock levels

Various stock levels can be considered for management, depending on the company's activity: merchandise, raw materials, finished products, work-in-progress, packaging, consumable materials, supplies, etc.

Stock Levels:

- Minimum stock: The stock level corresponding to the normal delivery time.
- Safety stock: An additional stock required in case of delivery delays or increased demand.
- Alert stock: The stock level triggering the placement of an order:
 $\text{Alert stock} = \text{Minimum stock} + \text{Safety stock}$.
- Maximum stock: The upper limit not to be exceeded.
- Tool stock: Stock essential for commercial or industrial activity, considered as immobilized.
- Average stock: $(\text{Initial stock} + \text{Final stock}) / 2$.
- Theoretical stock: Accounting stock determined based on movements:
 $\text{Theoretical stock} = \text{Initial stock} + \text{Inflows} - \text{Outflows} = \text{Final stock}$.
- Real stock: Physical stock assessed through inventory.
- Available stock: $\text{Real stock} - \text{Received customer orders}$.
- Virtual stock: $\text{Available stock} + \text{Orders in progress from suppliers}$.

Rotation of stocks and stock duration

Definition: The rotation of stocks corresponds to the number of times the stock is sold and replaced within a commercial year of 360 days.

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Rotation Coefficient:

Calculation Method: **Stock Rotation Coefficient = Annual Cost / Average Stock**

- Reminders:
Average Stock = (Initial Stock + Final Stock) / 2
Where average of monthly stocks.

Average duration:

- Calculation based on the rotation coefficient:
The average stock duration = 360 days / Stock Rotation Coefficient
- Direct calculation:
The average stock duration = (Average Stock / Annual Cost) x 360 days

Pareto law

The Pareto method, also known as the 80/20 principle, finds applications in various fields, including logistics. In the logistics context, the Pareto method can be used to optimize operational efficiency by focusing on elements that contribute the most to outcomes. Here's how the Pareto method can be applied in logistics:

Analysis of Stock Items:

In inventory management, the Pareto method can be used to classify items based on their contribution to the total stock value. Typically, it is observed that 20% of items represent 80% of the total value. By focusing on the efficient management of these priority items, costs and efforts related to logistics can be optimized.

Handling Quality Issues:

When managing the logistics chain, applying the Pareto method can help identify the most frequent or severe quality issues. By concentrating on resolving these priority issues, an organization can enhance the overall quality of its logistics operations.

Customer Management:

In logistics, the Pareto method can be used to identify customers who contribute the most to revenue or generate the most demands. By focusing on satisfying these priority customers, a company can strengthen its key business relationships.

Optimizing Delivery Routes:

For transport and delivery operations, the Pareto method can be applied to determine priority routes based on volume or the value of deliveries. This allows for the optimization of transport resources.

Analysis of Waiting Times:

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The Pareto method can also be used to analyze waiting times in the logistics process. By identifying the primary causes of delays, a company can take targeted corrective measures to improve efficiency.

How to Construct a Pareto Diagram

As with all the analytical tools, a good Pareto diagram starts with good data. In this case, the data that is needed is any measure of quality, stratified by the various categories that contribute to the overall effect.

The measure of quality can be anything that the team agrees will quantify the negative impact of the issue under consideration. Typical measures include: Cost, time, number of errors or failures, percent of customers expressing an opinion, etc.

The measure (e.g., cost) must be the same for all contributors in the analysis. Pareto analysis is a measured and ranked comparison. You cannot rank by different measures on the same Pareto table or diagram; that would be “comparing apples to oranges.”

Make sure that you spend time identifying all of the potential contributors before you set out to gather the data. Otherwise, you may end up with “miscellaneous” or “unclassified” items. It does not help to focus your team’s efforts if one of the “vital few” is titled “miscellaneous.”

The list of contributors to the effect can come from a variety of sources: Group brainstorming sessions, cause-effect diagrams, process flow diagrams, or the data itself.

Sometimes, the data you need already exists in accounting systems, routine management reports, or the files of individuals in the organization. If, however, the data does not exist, your team should develop a means for gathering it.

No matter how you develop the raw data for your Pareto analysis, to be successful, your data must:

- Use facts, not opinions, as the basis for decision making.
- Use the same measure for all contributors, and use the same assumptions and calculations throughout. Keep in mind that Pareto analysis is a comparison technique. Also note that consistency is more important than absolute precision in the numbers. It does not matter so much if assumptions and cost estimates are, say, conservative throughout by ten percent; as long as they stay consistent across all categories, the comparisons will still yield the correct “vital few.”
- Make sure your data represents the actual conditions and situations in the process.

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- Avoid controversial assumptions or techniques. Keep in mind that you are using Pareto analysis to support decision making. If people do not believe the data, they will not support your team’s decision.

Steps to Construct a Pareto Diagram

The following example will display the steps to construct a Pareto Diagram.

A team wanted to reduce the number of billing problems. Customer service reps were asked to record the type of defects (or billing problems) for each customer call during a one-week study period. At the end of the week, the team collected the checksheets and tallied the results by specific cause. To build the Pareto, they followed these steps:

Step 1: Total the data on effect of each contributor, and sum these to determine the grand total.

Defect Type	# Queries
Address Wrong	8
Time Incorrect	20
Rate Factor Incorrect	4
Service Coding Wrong	32
Format Confusing	6
Payment Not Credited	3
	73

Step 2: Re-order the contributors from the largest to the smallest.

Defect Type	# Queries
Service Code Wrong	32
Time Incorrect	20
Address Wrong	8
Format Confusing	6
Rate Factor Incorrect	4
Payment Not Credited	3
	73

Step 3: Determine the cumulative-percent of total.

For example, the cumulative-percent of total through the fifth contributor is the sum of the effects of the first five in rank ordering, divided by the grand total, and multiplied by 100.

$$[(32+20+8+6+4)/73] \times 100 = (70/73) \times 100 = 96\%$$

Step 4: Draw and label the left vertical axis.

- Label the axis from zero to the grand total or just beyond.
- Provide a caption to describe the measure being used.

Step 5: Draw and label the horizontal axis.

- Divide the axis into as many divisions as there are contributors.
- List the contributors from largest to smallest, going from left to right.
- Provide a caption to describe them.
- If the contributor names are long, label the axis A, B, C, etc. and provide a separate key.

Step 6: Draw and label the right vertical axis.

- Label the axis from zero to 100 percent.
- Line up 100 percent with the grand total on the left axis. In this example, the grand total is 73, so the 50 percent point on the right axis should line up with 36.5 on the left axis.
- $(50/100) \times 73 = 36.5$
- Provide the caption: "Cumulative-Percent of Total."

Step 7: Draw bars to represent the magnitude of each contributor's effect.

The height of the bars corresponds to the magnitude of that contribution as measured on the left axis.

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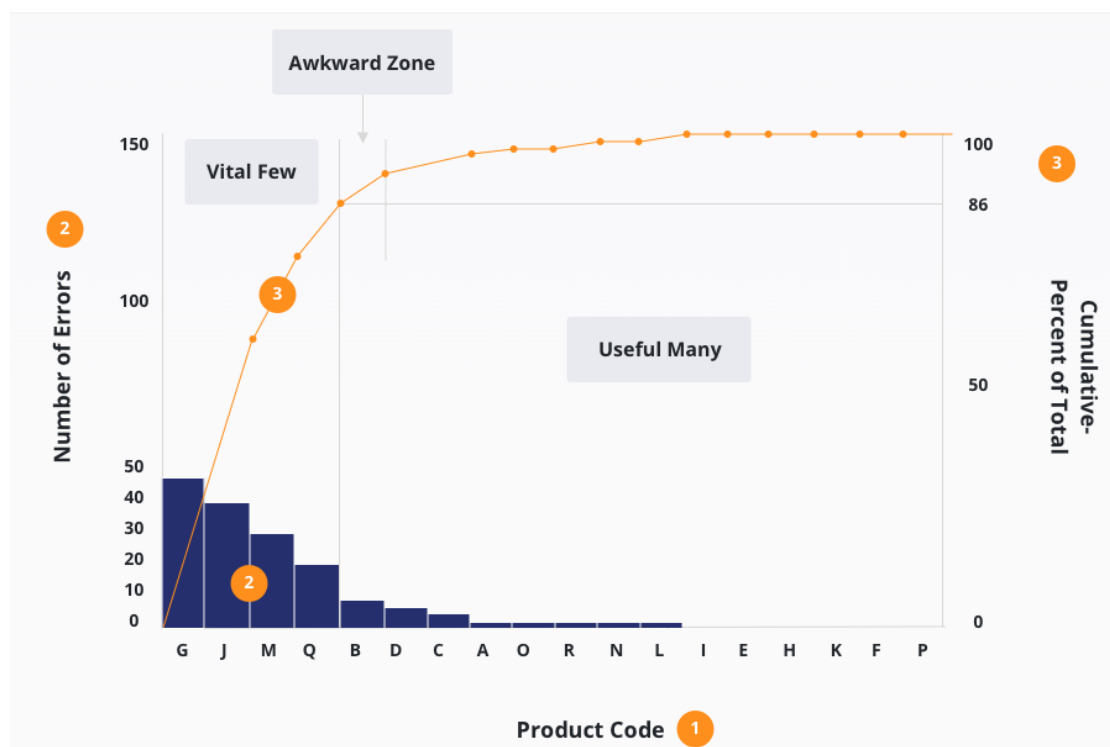
Step 8: Draw a line graph to represent the cumulative-percent of total.

- The plotted points correspond to the cumulative-percent as measured on the right axis.
- Line up the points above the right-hand edge of the bars.
- The cumulative-percent-of-total point for the first ranked contributor should be even with the height of the first bar. If not, you have made an error.

Step 9: Analyze the diagram.

Look for a breakpoint on the cumulative-percent graph.

Step 10: Title the chart, label the “vital few” and “useful many”, and show the cumulative-percent contribution of the vital few.



Exercises

Activities

Activity 12.1

Use the Pareto Diagram method to analyze the causes of errors in order preparation and prioritize corrective actions.

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Order Date	Inventory Error	Labeling Error	Quantity Error	Destination Error	Picking Error
01/02/2023	1	0	0	1	0
05/02/2023	0	2	1	0	0
10/02/2023	2	1	0	1	0
15/02/2023	0	0	2	0	1
20/02/2023	1	1	0	2	0
25/02/2023	0	0	1	0	1
28/02/2023	1	1	1	0	0

Analysis:

Inventory Errors: 5 occurrences.

Labeling Errors: 5 occurrences.

Quantity Errors: 5 occurrences.

Destination Errors: 4 occurrences.

Picking Errors: 2 occurrences.

Activity 12.2

The spare parts procurement manager of an automobile dealership has the following information at the beginning of the month:

- Initial stock: 300 units
- Forecasted incoming quantity for the month: 70 units
- Forecasted outgoing quantity for the month: 150 units

Task 1: What should be the forecasted stock of spare parts at the end of the month?

During the month, there is a possibility that 80 parts will be required for the assembly units in the workshops. An outstanding order with the supplier is for 150 units.

Task 2: For the month, what would be:

- The available stock
- The virtual stock

The average daily withdrawals are 20 units. The normal delivery lead time is 8 days. It is possible that the supplier delivers with a delay of 2 days.

Task 3: At what stock level should a new order be placed or triggered?

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Discussion starters

1. " How do you think optimizing inventory management could improve the overall efficiency of the supply chain for a start-up?
2. What specific challenges might start-ups face in logistics compared to established large companies? How can they effectively overcome these challenges?
3. As a start-up, how do you prioritize your logistics needs? What factors are most important to you in terms of logistics management?

Self-assessment questions

	TRUE	FALSE
1. Does inventory management aim to maintain a high level of stock in case of unexpected demand?		✓
2. The logistics encompasses only the transportation of goods.		✓
3. The objective of logistics is to reduce production costs.		✓
4. Procurement involves obtaining the necessary raw materials for production.	✓	
5. Inventory management aims to maximize stock levels to meet demand.		✓
6. Automation of logistics processes can lead to a decrease in efficiency.		✓
7. Physical inventory and accounting inventory are always identical.		✓
8. The supply chain includes all stages, from the supplier to the end customer.	✓	
9. Optimizing inventory management can help reduce storage costs and avoid stockouts.	✓	
10. Collaboration among different departments in a company can improve logistics management and overall efficiency.	✓	

Examination questions

1. Explain how efficient inventory management can contribute to improving operational efficiency and reducing costs for a start-up. Provide concrete examples to illustrate your points.
2. Analyze the specific challenges that young start-ups may face in logistics compared to established large companies. Propose strategies and approaches to overcome these challenges effectively.
3. Evaluate the impact of logistics process automation on the overall efficiency of a company. Identify the advantages and disadvantages of automation and explain how it can be implemented optimally.

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4. Discuss the importance of collaboration between different departments in a start-up to improve logistics management. How can this collaboration strengthen the efficiency of the supply chain and foster the company's growth?
5. Imagine you are the logistics manager of a start-up and you need to choose between maritime and air transport to deliver goods internationally. Develop a comparative analysis of the advantages and disadvantages of each mode of transportation, considering speed, cost, reliability, and environmental impact.

Further readings and recommendations

Further readings

1. Lambert, D. M. (2018). Strategic logistics management (6th ed.). CRC Press. This textbook provides a comprehensive overview of the principles and practices of logistics management, with a focus on international logistics. It covers key concepts, such as transportation modes, customs regulations, tariffs, and supply chain management, and provides practical examples and case studies.

APA reference: Lambert, D. M. (2018). Strategic logistics management (6th ed.). CRC Press.

2. Coyle, J. J., Bardi, E. J., & Langley, C. J. (2017). The management of business logistics: A supply chain perspective (9th ed.). Cengage Learning. This textbook provides a broad-based perspective on the management of logistics and supply chain management, with a focus on international logistics. It covers key concepts, such as transportation modes, customs regulations, tariffs, and supply chain management, and provides practical examples and case studies.

APA reference: Coyle, J. J., Bardi, E. J., & Langley, C. J. (2017). The management of business logistics: A supply chain perspective (9th ed.). Cengage Learning.

3. World Trade Organization (WTO). (2021). International trade statistics 2021. This report provides a comprehensive overview of global trade trends, including information on the volume of trade, the direction of trade, and the composition of trade by product and region. It is an excellent resource for students interested in gaining a deeper understanding of international trade and its impact on international logistics.

APA reference: World Trade Organization (WTO). (2021). International trade statistics 2021.

4. International Transport Forum (ITF). (2021). Transport outlook 2021. This report provides a comprehensive overview of the state of the global transport sector, including information on transportation modes, infrastructure, and the impact of technological developments on the sector. It is an excellent resource for students interested in gaining a deeper understanding of the key trends and challenges facing the international logistics industry.

APA reference: International Transport Forum (ITF). (2021). Transport outlook 2021.

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5. Council of Supply Chain Management Professionals (CSCMP). (2021). Supply chain quarterly. This journal provides a forum for discussion and analysis of the latest trends and issues in the field of supply chain management, with a focus on international logistics. It is an excellent resource for students interested in staying current on the latest developments in the field.

APA reference: Council of Supply Chain Management Professionals (CSCMP). (2021). Supply chain quarterly.

6. Ballou, R. H. (2017). Business logistics/supply chain management (7th ed.). Upper Saddle River, NJ: Pearson Education.
7. Chopra, S., & Meindl, P. (2017). Supply chain management: strategy, planning, and operation (7th ed.). Upper Saddle River, NJ: Pearson Education.

Web links

1. UN Comtrade Database (<https://comtrade.un.org/>): This database provides access to international trade data for over 150 countries, including information on trade volumes, trade balances, and the composition of trade by product and region. It is a valuable resource for students interested in gaining a deeper understanding of the patterns and trends of international trade.
2. World Bank Logistics Performance Index (<https://lpi.worldbank.org/>): This index provides a ranking of 160 countries based on the efficiency and effectiveness of their logistics systems, including indicators such as the time and cost of exporting and importing goods. It is a valuable resource for students interested in evaluating the competitiveness of different countries in terms of international logistics.
3. International Air Transport Association (IATA) (<https://www.iata.org/>): This website provides information on the global air transport industry, including data on air traffic trends, airline performance, and the impact of regulatory and technological developments on the sector. It is a valuable resource for students interested in learning more about the air transportation component of international logistics.
4. World Port Source (<https://www.worldportsource.com/>): This website provides information on over 7,000 ports worldwide, including data on port infrastructure, cargo volumes, and port rankings. It is a valuable resource for students interested in gaining a deeper understanding of the role of ports in international logistics.
5. United Nations Conference on Trade and Development (UNCTAD) (<https://unctad.org/>): This website provides a wealth of information on international trade, investment, and development, including data on trade patterns, foreign direct investment flows, and the competitiveness of different countries. It is a valuable resource for students interested in gaining a broader understanding of the global trade and investment environment and its impact on international logistics.

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<https://industri.fatek.unpatti.ac.id/wp-content/uploads/2019/03/264-Global-Supply-Chain-Management-and-International-Logistics-Alan-E.-Branch-Edisi-1-2009.pdf>

<http://www2.nkfust.edu.tw/~translab/globalLogisticsManagement/chapter01-v2.pdf>

https://www.ascdegreecollege.ac.in/wp-content/uploads/2020/12/Logistics_and_Supply_Chain_Management.pdf

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