

Definition of the training methodology

D3.1 (WP3): Definition of the training methodology

Responsible partner: IPAG

Contributor(s): UC3M, CIMNE



Document information table

Contract number:	723360
Project acronym:	ProdPhD
Project coordinator:	CIMNE
Document responsible partner:	IPAG
Deliverable type:	Report
Document title:	Definition of the training methodology
Document ID:	D3.1
Dissemination level:	Confidential, only for members of the consortium (CO)
Filename:	D3.1
Status:	Final version

Authoring and Review

Name	Role	Partner	Date
DIEP Tuong Bao	Author IPAG		January 2022
Elías Sanz CASADO	Contributor	UC3M	December 2021
Clara GARCÍA	Contributor	Scipedia	December 2021
Julio García ESPINOSA	Reviewer	CIMNE	January 2022

Please cite this publication as:

Diep, Tuong Bao (2021). Definition of the training methodology

The dissemination of results herein reflects the sole author's view, and the European Commission is not responsible for any use that may be made of the information it contains.

The information contained in this report is subject to change without notice and should not be construed as a commitment by any members of the ProdPhD Consortium. The information is provided without any warranty of any kind.



EXECUTIVE SUMMARY

This document presents the educational methodology aimed at providing PhD candidates with the necessary knowledge and skills to start and run their business, be they aspiring or confirming entrepreneurs. It addresses the way the training should be done, the training programme content in terms of 'training pills' and for each one, specify the rationale, the intended learning outcomes and the content, and suggest the activities to be undertaken, the duration and additional information sources.



TABLE OF CONTENTS

Executive Summary	2
Table of Contents	3
1. INTRODUCTION	8
2. METHODOLOGY	8
2.1. OBJECTIVES OF THE TRAINING PROGRAMME	8
2.2. LEARNING-BY-DOING APPROACH	10
2.3. REVERSE TRAINING	
2.4. Training tools	11
3. Educational content specification	
3.1. Presentation	12
3.2. Content	12
3.2.1. BUSINESS STRATEGY MODULE	15
3.2.1.1. DESCRIPTION	15
3.2.1.2. Intended learning outcomes	15
3.2.1.3. CONTENT	
3.2.1.4. SUGGESTED ACTIVITIES	
3.2.1.5. Duration	
3.2.1.6. Information sources and complementary resource	s17
3.2.2. BUSINESS MODEL	
3.2.2.1. DESCRIPTION	
3.2.2.2. Intended learning outcomes	20
3.2.2.3. CONTENT	21
3.2.2.4. SUGGESTED ACTIVITIES	22
3.2.2.5. DURATION	
3.2.2.6. Information sources and complementary resource	s24
3.2.3. BUSINESS FORMS AND STATUSES	26
3.2.3.1. DESCRIPTION	
3.2.3.2. Intended learning outcomes	
3.2.3.3. CONTENT	
3.2.3.4. SUGGESTED ACTIVITIES	
3.2.3.5. DURATION	
3.2.3.6. Information sources and complementary resource	s28



3.2.4.	BUSINESS PLAN	29
3.2.4.1.	Description	29
3.2.4.2.	Intended learning outcomes	29
3.2.4.3.	CONTENT	29
3.2.4.4.	Suggested activities	30
3.2.4.5.	Duration	31
3.2.4.6.	Information sources and complementary resources	31
3.2.5.	Marketing	32
3.2.5.1.	DESCRIPTION	32
3.2.5.2.	Intended learning outcomes	32
3.2.5.3.	CONTENT	32
3.2.5.4.	SUGGESTED ACTIVITIES	34
3.2.5.5.	Duration	34
3.2.5.6.	INFORMATION SOURCES AND COMPLEMENTARY RESOURCES	35
3.2.6.	FUNDING	36
3.2.6.1.	DESCRIPTION	36
3.2.6.2.	Intended learning outcomes	36
3.2.6.3.	CONTENT	36
3.2.6.4.	SUGGESTED ACTIVITIES	37
3.2.6.5.	Duration	38
3.2.6.6.	INFORMATION SOURCES AND COMPLEMENTARY RESOURCES	38
3.2.7.	HUMAN RESOURCE MANAGEMENT	39
3.2.7.1.	DESCRIPTION	39
3.2.7.2.	Intended learning outcomes	39
3.2.7.3.	CONTENTS	40
3.2.7.4.	Type of instruction and activities	40
3.2.7.5.	Duration	40
3.2.7.6.	INFORMATION SOURCES AND COMPLEMENTARY RESOURCES	40
3.2.8.	GROWTH MANAGEMENT	42
3.2.8.1.	DESCRIPTION	42
3.2.8.2.	Intended learning outcomes	42
3.2.8.3.	CONTENTS	42
3.2.8.4.	Type of instruction and activities	43



3.2.8.5.	DURATION	43
3.2.8.6.	Information sources and complementary resources	43
3.2.9. N	Anagement accounting	44
3.2.9.1.	DESCRIPTION	44
3.2.9.2.	Intended learning outcomes	44
3.2.9.3.	CONTENT	44
3.2.9.4.	SUGGESTED ACTIVITIES	46
3.2.9.5.	DURATION	46
3.2.9.6.	INFORMATION SOURCES AND COMPLEMENTARY RESOURCES	46
3.2.10.	FINANCIAL ACCOUNTING	48
3.2.10.1.	DESCRIPTION	48
3.2.10.2.	Intended learning outcomes	48
3.2.10.3.	CONTENT	48
3.2.10.4.	SUGGESTED ACTIVITIES	49
3.2.10.5.	DURATION	50
3.2.10.6.	INFORMATION SOURCES AND COMPLEMENTARY RESOURCES	50
3.2.11.	PROCUREMENT MANAGEMENT	52
3.2.11.1.	DESCRIPTION	52
3.2.11.2.	Intended learning outcomes	52
3.2.11.3.	CONTENT	53
3.2.11.4.	SUGGESTED ACTIVITIES	55
3.2.11.5.	DURATION	55
3.2.11.6.	INFORMATION SOURCES AND COMPLEMENTARY RESOURCES	55
3.2.12.	CORPORATE LAW	57
3.2.12.1.	DESCRIPTION	57
3.2.12.2.	Intended learning outcomes	57
3.2.12.3.	CONTENTS	57
3.2.12.4.	TYPE OF INSTRUCTION AND ACTIVITIES	58
3.2.12.5.	DURATION	58
3.2.12.6.	Information sources and complementary resources	58
3.2.13.	Entrepreneurship	59
3.2.13.1.	DESCRIPTION	59
3.2.13.2.	INTENDED LEARNING OUTCOMES	59



3.2.13.3.	CONTENT	59
3.2.13.4.	Suggested activities	60
3.2.13.5.	Duration	61
3.2.13.6.	INFORMATION SOURCES AND COMPLEMENTARY RESOURCES	61
3.2.14.	Self-assessment	63
3.2.14.1.	Description	63
3.2.14.2.	INTENDED LEARNING OUTCOMES	63
3.2.14.3.	Contents	63
3.2.14.4.	Duration	65
3.2.14.5.	INFORMATION SOURCES AND COMPLEMENTARY RESOURCES	65
3.2.15.	Design thinking.	67
3.2.15.1.	Description	67
3.2.15.2.	INTENDED LEARNING OUTCOMES	67
3.2.15.3.	Content	68
3.2.15.4.	SUGGESTED ACTIVITIES	69
3.2.15.5.	Duration	7C
3.2.15.6.	INFORMATION SOURCES AND COMPLEMENTARY RESOURCES	7C
3.2.16.	LEADERSHIP	72
3.2.16.1.	Description	72
3.2.16.2.	INTENDED LEARNING OUTCOMES	72
3.2.16.3.	Content	72
3.2.16.4.	Suggested activities	73
3.2.16.5.	Duration	74
3.2.16.6.	INFORMATION SOURCES AND COMPLEMENTARY RESOURCES	74
3.2.17.	COMMUNICATION	75
3.2.17.1.	Description	75
3.2.17.2.	INTENDED LEARNING OUTCOMES	75
3.2.17.3.	CONTENT	76
3.2.17.4.	Type of instruction and activities	76
3.2.17.5.	Duration	76
3.2.17.6.	INFORMATION SOURCES AND COMPLEMENTARY RESOURCES	77
3.2.18.	Teamwork	78
3 2 18 1	DESCRIPTION	78



3.2.18.2.	INTENDED LEARNING OUTCOMES	78
3.2.18.3.	CONTENT	78
3.2.18.4.	SUGGESTED ACTIVITIES	79
3.2.18.5.	Duration	80
3.2.18.6.	INFORMATION SOURCES AND COMPLEMENTARY RESOURCES	80
3.2.19.	PUBLIC RELATIONS.	81
3.2.19.1.	DESCRIPTION	81
3.2.19.2.	INTENDED LEARNING OUTCOMES	81
3.2.19.3.	CONTENTS	81
3.2.19.4.	Type of instruction and activities	82
3.2.19.5.	Duration	82
3 2 19 6	INFORMATION SOURCES AND COMPLEMENTARY RESOURCES	82



1. INTRODUCTION

The goal of prodPhD is to implement innovative social network-based methodologies for teaching and learning entrepreneurship in PhD programmes. The multidisciplinary teaching and learning methodologies will enable entrepreneurship education to be introduced into any PhD programme, providing PhD candidates with the knowledge, skills, and motivation to engage in entrepreneurial activities. The entrepreneurship content is developed partly upon the survey and in-depth interviews carried out by WP2's task T2.1 to identify PhD and faculty' needs and expectations.

- Among other findings, PhD student surveys and in-depth interviews show that a large majority
 of them had not received any training on entrepreneurship. They deemed instrumental skills –
 especially those that are in relation to decision making, problem solving, leadership, and
 strategic planning are very valuable for entrepreneurship. They also think that training should
 especially emphasise planning, resource procurement and management, product presentation
 and sales strategies, and examples of business success.
- Faculty members among other viewpoints think direct contact with entrepreneurs as a key point of training on entrepreneurship. They particularly highlighted the development of skills such as the ability to bring a project/idea to the market, business plan development and training for innovation and creativity.

The partners have designed the entrepreneurship training programme for PhD candidates taking into account these conclusions they complemented these conclusions with their experience on entrepreneurship training of a large panel of trainees, from undergraduate and graduate students to vocational training of professionals and aspiring entrepreneurs.

2. METHODOLOGY

The courses address PhD candidates who aspire to create a business or want to apply business skills in companies as 'intrapreneurs', rather than students undertaking a training programme to be graduated. The courses were therefore designed to provide the PhD candidates with the exact necessary and sufficient skills needed to start and run his or her business. They are designed to develop experiential knowledge, involving academics, entrepreneurship experts, and mentors in its development and implementation. The material to be developed should be suited or easily adapted to social networking in view of crowdsourcing new ideas, improving methodologies, and stimulating academics' entrepreneurial skills.

2.1. Objectives of the training programme

The programme has as its overall goal to provide PhD candidates with the necessary and sufficient knowledge and skills to start and run a business from ideation to management.

The programme is aimed at turning an initial business idea into a viable business project. As depicted by the following figure, the main milestones are obviously related to the following phases:

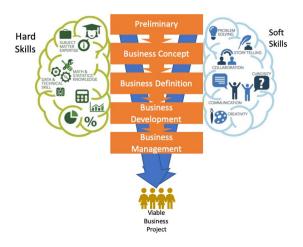
- Concept: related to outline and define the business idea and build team commitment.
- Definition: aimed at evaluating and validating the business opportunity, involving business internal and external analysis, business model definition and design.
- Development: associated with de design and management of all the new company's processes involved with everyday operations that are: marketing and sales, operations, financing, administrative, people, legal and tax issues, etc.





• Management: related to the issues affecting the future evolution of the new firm, such scenario analysis, goal orientation, strategic approach to management, etc.

Throughout this step-by-step approach both hard and soft skills must be worked to provide participants with the intellectual and social levers they need to develop their projects in the appropriate context in which they may be necessary. This learning process requires the availability and contribution of a number of key factors that will be approached afterwards.



The courses address both the hard and soft skills needed to start and run the business. For each module, the PhD candidates will know understand the role the learnt skill will play business management and how to use them – possibly through the hiring of dedicated staff – for the running of his or her own company.

- Hard skills
 - 1. Business strategy
 - 2. Business model
 - 3. Business forms and statuses
 - 4. Business plan
 - 5. Marketing
 - 6. Funding
 - 7. Human resource management
 - 8. Growth management
 - 9. Management accounting
 - 10. Financial accounting
 - 11. Procurement management
 - 12. Corporate law
- Soft skills
 - 1. Entrepreneurship





- 2. Self-assessment
- 3. Design thinking
- 4. Leadership
- 5. Communication
- 6. Teamwork
- 7. Public relations
- 8. Corporate social responsibility

2.2. Learning-by-doing approach

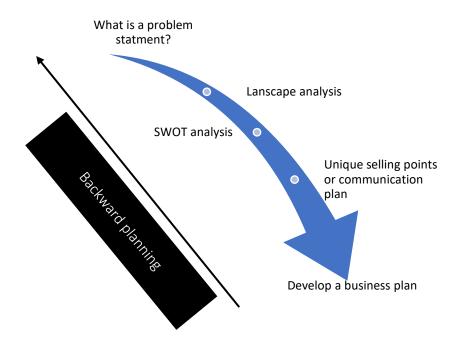
The methodology proposed by prodPhD pays extreme attention to the learning-by-doing approach, since it allows not only better comprehension of the taught concepts but encourages PhD candidates to go business or apply the learnt concepts and methods in companies as 'intrapreneurs'.

The online courses should therefore be accompanied by:

- Workshops in face-to-face and project mode where PhD candidates can work on their projects if any with the help of professionals, experts and confirmed entrepreneurs who give teams the benefit of their advice and experience
- Networking with aspiring, starting and confirmed entrepreneurs, investors, experts in relevant areas (corporate law, finance, etc.), etc. thanks to in-person meetings but also and may be more importantly through internet-based tools such as messaging, fora, collaborative edition, etc.
- Access to virtual and onsite incubators supporting PhD candidates' business projects all along the creation process from ideation to market study, business model definition and planning, partner search, status choice and registration, etc.

2.3. Reverse training

As much as possible, the training should start with the learning objectives of the PhD candidates, then establishes accordingly the learning roadmap with the topics to be covered and their corresponding durations as shown by the below picture which takes as example the development of a business plan.





2.4. Training tools

The implementation of this pedagogical methodology requires the design of a panoply of tools for achieving the project's objectives by having the would-be entrepreneurs and intrapreneurs acquire the skills they need. These tools can be classified in different categories:

- A team of trainers (teachers and specialists) and mentors or facilitators providing the knowledge and the expertise required for the teams to acquire the skills they need
- A roadmap to adapt knowledge acquisition to the process of business venturing following the inventory of skills presented above.
- A template design to develop teaching materials under the same format and structure to facilitate content coordination and homogeneity of design. This template proposal is necessary for the instructors but should be flexible for the young and senior participants, since it is the instructor who can make be best content adjustments to every entrepreneurial team.

The following figure depicts the basic framework for developing the Instrumental materials and infrastructures needed to carry out the programme. The backbone for this purpose would be a set of contents developed for the instructors, which would provide the guidelines to work with the program's participants on a custom-made basis, depending upon each group's characteristics and the available resources. The expected output would be a set of materials with different formats and contents. They are aimed at addressing the basic contents of the hard and soft skills catalogues which, according to the local instructors' viewpoint, might be customised to each partner institution's academic and social environment. This freedom of choice is, in our opinion, keen for a successful programme implementation.

All this material will be collected, stored and delivered by the Sciepedia platform.

In addition, special attention should be paid to other secondary tools involved in the project, such as:

- Business incubators whether onsite or online, whenever possible, to provide the following services:
 - Awareness, information, orientation of candidate entrepreneurs,
 - Building a business creation project, step by step,
 - Support for entrepreneurial projects by competent and selected coaches,
 - Connecting with partners and investors in order to facilities their financing
 - Etc.
- Mobile application to deliver the following services:
 - Micro training on entrepreneurial knowledge and skills,
 - Real-time monitoring of entrepreneurial projects
 - Etc.
- Online networking with economic actors such as entrepreneurs, investors, financial organisations, workers, administration bodies, professional associations and unions, etc.
- Testimonials showing how PhD students came to start and run businesses, succeeded or more overcame their failures
- Complementary resources for team building, networking and experience acquisition
 - Business simulator





- Hackathon competitions
- Case studies and technical notes

Each participating institution should adapt this methodology to its own local conditions and the resources it has to as to optimise the success rate of the projects undertaken by its participants.

3. Educational content specification

3.1. Presentation

Each module goes with the following specifications:

- Description: the raison d'être of the module with regards to both the corporate and environmental contexts.
- Intended learning outcomes in terms of the knowledge, understanding, skills and abilities the trainees will acquire after completion of the course.
- Judgement and approach: to which business and enterprise problems and how the trainees will be able to apply the learning outcomes
- Contents in terms of taught concepts and topics.
- Type of instruction and activities: readings, lectures, teamworks, serious games, etc.
- Assessment: assignments, exams, quizzes, etc.
- Duration
- Information sources and complementary resources, mainly internet-based documents.

3.2. Content

The programme proposed by prodPhD stems directly from the responses given to the surveys and interviews by PhD students and faculty members when asked about the skills that should be included in entrepreneurship courses: as shown by the below tables, they show a requirement and need to be trained both on hard and soft skills, both at theoretical and practical levels as shown by the below tables (deliverable D2.1 – Needs and Requirements Analysis).

Entrepreneurship courses	1	2	3	4	5
Theoretical concepts behind setting up and running a business	3	14	56	29	8
Encouragement for students to set up and run their own business	4	19	40	32	15
Strategies for managing and ensuring the growth of established companies	0	9	23	48	29
Training in marketing and finance	1	10	30	40	29
Conditions that favour business creation	0	8	35	51	16
How to move/make the transition from traditional employment to self-employment	0	7	29	49	26
Presentation and review of real cases of entrepreneurship	0	2	26	46	36



Business plan development	0	2	18	48	42
Training in innovation and creativity	2	8	30	39	31
Understanding how different kinds of businesses work	0	7	29	47	27
The competences and skills that make a successful entrepreneur	0	6	26	48	30
How to obtain resources to create my own business	0	3	18	38	51
Problem-solving skills	3	9	30	32	36
Dealing with failure	3	10	18	38	41
How to work under pressure	5	13	22	41	29
How to bring my project/ideas to the market	0	3	12	43	52

Table 1 shows the students' responses, 1 meaning they 'strongly disagree' with the sentence and 5, that they 'strongly agree'.

Entrepreneurship abilities	1	2	3	4	5
Theoretical concepts behind setting up and running a business	2	8	11	5	3
Encouragement for students to set up and run their own business	1	5	4	12	8
Strategies for managing and ensuring the growth of established companies	5	2	8	11	4
Training in marketing and finance	3	3	12	7	5
Conditions that favour business creation	4	4	10	7	5
How to move/make the transition from traditional employment to self-employment	4	2	10	10	4
Presentation and review of real cases of entrepreneurship	1	4	8	6	11





Business plan development	2	1	5	12	10
Training in innovation and creativity	3	1	5	11	10
Understanding how different kinds of business work	4	2	8	15	1
The competences and skills that make a successful entrepreneur	3	2	10	10	5
How to obtain resources to create my own business	3	2	8	12	5
Problem-solving skills	2	2	6	13	7
Dealing with failure	2	4	6	7	11
How to work under pressure	2	7	7	9	5
How to bring my project/ideas to the market	3	1	3	15	8

Table 2 shows the faculty members' responses, 1 meaning they 'strongly disagree' with the sentence and 5, that they 'strongly agree'.



3.2.1. Business strategy module

3.2.1.1. Description

A business strategy is the combination of all the internal and external decisions made and actions undertaken to achieve business goals. It is the backbone of the business as it is the roadmap which leads to the desired goals. Although a given business may have different goals and it may take different routes to fulfil a same goal, any strategic error can result in the business getting lost. Starting or running a business without a strategy is no more a gamble. While it is easy to understand what business strategy is about, it is more challenging to design and execute a successful one. The three factors driving the success of a business strategy are:

SWOT

- Strengths and weaknesses: it is of utmost importance to know about one's strengths and weaknesses while formulating a strategy to reinforce the former and eliminate the latter.
- Opportunities and threats: in parallel, it is equally essential to have a sound knowledge of the current and future opportunities and threats so to design a strategy to exploit opportunities and mitigate threats.
- Competitive advantage: a business strategy focuses on taking advantage opportunities and capitalising on the strengths of the business and using it as a competitive advantage to position the offered product or service in a unique way. This gives an identity to business and makes it unique in the eyes of the customer.
- Effectiveness and efficiency which encompass planning and control
- Business strategy is a part of a business plan. While the business plan sets the goals and objectives, the strategy gives you a way to fulfil those goals. When every step is planned, every resource is allocated, and everyone knows what is to be done, business activities become more efficient and effective automatically. Control ensures that everything is following the planned path and that the interim goals are achieved. This makes it easy to control the activities and see if they are going as planned.

3.2.1.2. Intended learning outcomes

The purpose of this module is to teach PhD candidates how to apprehend, design and implement their company's strategy.

On completion of the module, the participant will be able to undertake a strategic diagnosis, make strategic choices, deploy the designed strategy, and manage it.

Knowledge and understanding

The student will understand the nature and the role of the different factors driving the company's strategy: political factors, economic factors, social factors, technological factors, legal factors, and environment factors.

The student will understand the five forces of the Porter's competition model: the threat of new entrants, the threat of substitutes, the bargaining power of suppliers, the bargaining power of customers, and the competition rivalry.

The student will be able to identify the factors and forces of its business ecosystem.

• Skills and abilities

The student will be able to characterise the factors:





- Political factors: stability, tax policy, foreign trade, social protection, etc.
- Legal factors: labour code, occupational health and safety laws, hygiene law, anti-monopoly law, etc.
- Economic factors: economic cycles, GDP, employment, monetary policy, etc.
- Social factors: demography, education, standard of living, lifestyle, etc.
- Technological factors: R&D investment level and structure, technology transfer, obsolescence rate, discoveries, etc.
- Environmental factors: environmental law, energy regulation, waste regulation, etc.

The student will be able to characterise the five forces of Porter met by his or her business:

- Threat posed by new entrants: differentiation, economies of scale, capitalistic intensity, transfer costs, access to retailers, etc.
- Threat posed by substitute products or services: use, function, appreciation, etc.
- Supplier bargaining power: diversified vs. undiversified suppliers, varied vs. unvaried customers, customer change costs, supplier change costs, downstream integration threats, etc.
- Customer bargaining power: diversified vs. undiversified customers, varied vs. unvaried suppliers, supplier change costs, customer change costs, upstream integration threats, etc.
- Environmental factors: environmental law, energy regulation, waste regulation, etc.
- Judgement and approach

Upon completion of the course, the student will be able to:

- Appreciate the strengths and weaknesses of its original business project against the opportunities and threats posed by his or her business' stakeholders: customers, competitors, suppliers, legislation, societal trends, etc.
- Evaluate the improvements he or she has to bring to his or her business model so to reinforce the strengths, reduce the weaknesses in order to exploit the opportunities and mitigate the threats.

3.2.1.3. Content

Concepts

The main concepts to be acquired include:

- What strategy audit, strategy design, strategy deployment and strategy management are all about
- How strategy allows the business to design and achieve its goals and objectives by increasing
 its strengths and reducing its weaknesses with regard to its stakeholders in order to exploit
 the benefits and mitigate the threats posed by the environment.

Topics

The topics covered by the module encompass:

- The differences between primary and support functions
- The role played by knowledge management in the firm's strategic capacity





- The different levers to create a competitive advantage against competitors: price strategy, upward, onward and hybrid differentiations, focalisation strategy, market penetration, business consolidation, business diversification
- The different ways to develop the business: product vs. market development, internal vs. external growth, etc.

3.2.1.4. Suggested activities

- Topics for debate
 - The phenomenon of start-ups
 - Small business as a basis of economics
 - Business and taxes
 - Business ethics and general ethics
 - The cultural differences of business in different countries
 - Defining the targeted audience
 - Diversity of personnel: is it good for business?
 - Calculating risks in business
 - Monopolies and their impact on the market
 - Business and personal relationships. Can family business ruin a family?
 - Franchises: what differentiates them from business "from scratch"?
 - Market of services
 - The changes in consumer behaviour induced by the Internet
 - Outsourcing in business, its advantages, and disadvantages
 - The balance of increasing production and ecology
- Practical activities

The course can combine (from less to more informal and less to more trainees' participation):

- Lectures
- Seminars
- Workshops

3.2.1.5. Duration

The course should last 18 hours.

3.2.1.6. Information sources and complementary resources

- Bibliographic references
 - Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant by W. Chan Kim and Renée Mauborgne
 - Strategy Beyond the Hockey Stick by C. Bradley, M. Hirt and S. Smit
 - 7 Powers: The Foundations of Business Strategy by H. Helmer
 - Competitive Strategy: Techniques for Analysing Industries and Competitors by M. Porter
 - What is PESTLE Analysis? by P. Newton





- Web references
 - https://businessjargons.com/business-strategy.html
 - https://www.business-case-analysis.com/business-strategy.html
- Multimedia contents
 - https://www.youtube.com/watch?v=0cMdPH6jZCM
 - https://www.youtube.com/watch?v=EvvnoNAUPS0



3.2.2. Business model

3.2.2.1. Description

One of the milestones to be achieved by the entrepreneur when trying to turn a market opportunity into a business project is to define the business model. This means explaining in the clearest and most concise way how you're going to compete in the market, how you'll generate value for someone, how you'll use your resources to generate and deliver that value, and how you'll structure your relationships with customers and other agents in your industry to sustain and grow from the benefits you can generate. In essence, you have to explain how you're going to earn revenue in a scalable, recurring, and cost-effective way.

While not a novel concept in the business field, business modelling has proven to be a very valuable tool in times of profound technological, social and business changes, when new needs and opportunities arise in virtually all sectors. In particular, it has proven very useful to start new companies based in disruptive innovation, some on them being unimaginable a few years ago, which are constantly challenging traditional businesses.

The way to describe a model should be understandable, simple, and pointing out the most relevant points of the company's operation but without entering into detailed complexities. Sometimes it is confused with the Business Plan. However, while the business model aims at describing how the company competes and provides an idea of the strategy it will follow and the positioning it seeks in the market, the Business Plan is a more thorough analysis that will not only justify the business model but will allow you to justify the commercial and financial economic viability of the project.

In order to design the new business model, the entrepreneur should be aware of the market, the sector of activity and its trends, the business models of other competitors, as well as the habits of their potential customers to guide their value proposition. Then it will be time to detail the Business Plan.

The contribution of Alexander Osterwalder and Yves Pigneur on how to describe a business model has been widely accepted in the business world. This model proposal explains the four main areas of the business -customers, the value proposal, infrastructure and economic viability. The main topics related to these areas are:

- Customers, that is, the "target market" segment to be addressed by the new business.
- The value proposal to the customer, including not only the basic product or service to be delivered, but also those other attributes that make it unique and differentiated from other competitors, and thus acceptable by the customer.
- The business infrastructure, that is, all that we need to materialise the value proposition. It can be related to the channels that are used to deliver the value proposition to the customer, how do we interact with those channels, what activities will be key to provide that value proposal, and, therefore, identify what resources (intellectual, physical, human and economic) are essential, and the alliances to be established with suppliers or any other collaborator that favor the development of a successful value proposal.
- The economic viability, based on the study of the sources of income and a complete list of the costs incurred to carry out the entire proposal.

There are nine elements describing the business model:



- Market segment/s. The groups of customers to which the value proposition will be addressed. It is essential to have a thorough knowledge of the needs of this target customer.
- Value proposition. That is, the value that the company generates for a segment. It will be the factor or advantage main reason why a customer is inclined to choose a company.
- Customer relationship. The type of relationship the company will establish with each segment of the market. Here we find from very personalised relationships to very automated and even collaborative ones.
- Channels. How you're going to get your value proposition to customers. Know well the different functions that our channel needs, either to provide information about our products or services, or helping to evaluate options, purchase, delivery and after-sales service.
- Sources of income. It is about defining the different sources of income that the company may have responded to what each segment are willing to pay. It is an essential issue to further calculate the project's profitability.
- Key activities. They are the most important actions that a company must undertake to create and offer its value proposition, reach customers, stay in touch with them and get revenue.
- Key resources. These are the resources that are essential to develop key activities, create and offer your value proposition, reach customers and even receive revenue. In sum, these are the resources for all key activities and modules above to be developed.
- Key associations. Identify the network of suppliers and partners contributing to the business operation. This includes the agreements and contracts required to acquire resources, optimise activities, reduce risks, together with the strategic alliances to increase capacity or to develop new business models.
- Cost structure. This module attempts to identify all the costs involved in setting up the business
 model, including value creation and keeping customer relationships, the distribution channel
 and the generation of income. Until the above modules have been defined, costs cannot be
 addressed. It is about identifying the fixed costs, the variable costs, but we must bear in mind
 that the focus of the model is not always on costs, there are models that are more oriented
 toward value creation optimisation.

This method is graphically presented with the so-called "Business Model Canvas", which includes these nine elements and altogether they present the logic of "what I want to do, who I want to sell it to, how I'm going to make it and how much profit I could make". It is a very visual and useful form of representation during the process of designing the business model, which will help you to reflect on the business idea and make decisions allowing it to be materialised. It is widely used in the all-around the business world, allowing the comparison of business models of very different companies and being the starting point to look for new opportunities.

Having a clear business model will allow the entrepreneur to:

- Have a reference to continuously update as you become more aware of the market.
- Focus attention on how all parts of the business fit together, therefore making the project consistent.
- Identify and be willing to work on key resources, activities, and partnerships.
- Represent the business logic to be shared with different pressure groups, including employees.

3.2.2.2. Intended learning outcomes

This module aims to develop the following generic skills in PhD candidates:



- Knowledge and understanding
 - What is a business model?
 - Differentiate business model from the business plan
 - Relationship between business model and market positioning
 - How to describe a business model?
 - What advantages can it bring to the entrepreneur in order to analyse the business model?
- Skills and abilities
 - Improve creativity to find new ideas and propose solutions.
 - Team-work abilities.
 - Leadership capacity.
 - Ability to work autonomously.
 - Ability to present work, ideas and opinions in public.
 - Ability to synthesise information
 - Critical thinking
 - Negotiation capacity
- Judgement and approach
 - Development of critical reasoning in the analysis and synthesis of information.

3.2.2.3. Content

Concepts

- Market positioning. It's the way we want a consumer to perceive our brand, product line or company. Differentiation is an important factor within positioning. The more difficult it is to imitate by others, the more sustainable it will be through time.
- Business model. describes how the company creates, provides, and captures value (A. Osterwalder, I. Pigneur, 2011).
- Market segment/s. Homogeneous groups of stable, and identified consumers, with substantial differences from other groups and relevant enough in our market to provide a business opportunity.
- Value proposition. Once we have detected a market opportunity, either because we have identified a dissatisfaction or because we understand a competitor's proposal is improvable, we have a new value proposition, that is, a factor or group of factors by which consumers opt for our company compared to others.
- Channels. Means or ways to reach the customer. We can distinguish communication, distribution or sales channels. Channels can perform different functions including product or service information, support to evaluate options, purchase, delivery and after-sales service.
- Sources of income. Origin of a company's revenue. It is a question of recognising the different lines of income that the company may have that will obey the different value propositions that the segment is willing to pay for. Among these proceeds from sale of products or services, there can also be income from use, rent, license, etc., advertising



revenue, by intermediation, etc. It is an essential component to later evaluate the project's economic viability.

- Income. Amounts a company receives in exchange for its products or services.
- Funding Sources. Origin of the funds necessary to start or sustain a business. We are talking about funding capital or external financing, internal or external, in the short or long term.
- Key activities. They are the most important actions that a company must undertake to create and offer its value proposition, deliver it to its customers, be in contact with them and collect its revenue.
- Key resources. It refers to the inputs that are essential to create and offer a value proposition. They can be either physical, economic or human resources.
- Key associations. Identify the network of suppliers and allies contributing to the operation
 of the business model. Agreements to acquire resources, optimise activities, reduce risks,
 increase capacity, etc. These alliances can be between customer-supplier, between noncompetitive companies, between competing companies, between companies and other
 relevant institutions.
- Cost structure. These are the costs we incur to create and offer our value proposition. In general, two types of costs can be distinguished: fixed costs, which are not sensitive to changes in the activity level of the company, and variable costs, that vary depending on the level of activity of the company.
- Business Model Canvas. Graphical representation of the business model on a canvas where nine modules are analysed (value proposition, market segments, channels, customer relationship, revenue source, key activities, key resources and key alliances). As a whole it explains how the company creates, provides and captures value.

Topics

- Description and representation of the business model.
- Relationship between the model's elements to have a consistent model.
- Redefine the model until a good and profitable value proposition is found.
- Importance of maintaining an attitude of continuous monitoring of trends: technological evolution of the market, evolution of its market segments and their consumption habits, new business models

3.2.2.4. Suggested Activities

Activities to be carried out as a team to stimulate the creation of ideas and critical thinking:

- Analyse upcoming or well-known businesses and try to represent their business model on a canvas.
- Find companies within the same sector of activity but with different business models. Each group will focus on representing and describing the business model of one of those companies and then an open discussion will be open to compare the different companies relate it to the market positioning of each company.





- Have the participants propose a business idea, as prospective entrepreneurs, and then make them define the corresponding business model on a canvas template. Then discuss the positioning that their company would have in the market related to other competitors.
- Based on a need detected in the market, pose to teams the challenge of building a business model providing a solution. Then, have them present their team approaches to the whole group, and bring out the comparisons between the different models. Question them and establish a debate. Another variant is to pose different challenges to each team.

• Topics for debate

- Look for an already made Business Model Canvas and analyse the consistency of its representation and how all the pieces on the canvas fit together, and that any change in one of them causes others to need to be rethought.
- Relationship between the business model and the company's positioning in the market.
 Since any market necessity can be approached by companies with different business models,
 they can be positioned differently in the market
- Discuss the differences between a business model and a Business Plan
- At what point in the business plan methodology it is appropriate to have the business model defined? The business plan must be drafted once we are clear about the business model. But the business plan methodology is a methodology that will allow you to build the business model once the environment, market, activity sector, competitors and market study of potential customers' consumption habits have been analysed. Subsequently, once the model has been defined, the business plan can be defined in detail and the feasibility of the company can be analysed.
- How new value propositions can be formulated on the basis of a consistent business model.

• Practical activities

Practice 1

It is intended that a business model is built by all PhD candidates as the result of analysis and critical thinking, and after a debate to reach a consensual result.

Teams will be worked on and will be done in four stages. Each stage will generate results that will be exposed and discussed to provoke a debate among PhD candidates to agree on a single result that will be the starting point of the next stage.

There will be a problem or need that is currently being detected in a social group or a market segment.

That result achieved at each stage will be pasted onto the Business Model Canvas template so that it is visible to everyone. The process to follow has five stages:

- o First stage: whose purpose will be to define the value proposition and segment/s of the market to which it is aimed.
- O Second step: the objective will be to indicate how the value proposition will be delivered, and how the relationship with the customer will be.
- O Third stage: the objective will be to indicate how the delivery will be carried out by identifying the essential activities, the necessary resources and the partnerships to be established.



- Part Four: the objective will be to analyse its economic viability, identifying the source of revenue and operating costs
- o Fifth part: whose purpose is raised conclusions by making an overall assessment of the model, its coherence, its position in the market, and chances of success or further changes to be made for its implementation.

- Practice 2

Choose a Business Model Canvas showing a business model, such as that made in a previous practice, or any other. Discuss new value propositions or new company growth strategies, and how they might affect the configuration of the initial business model.

Practice 3

Analyse the evolution of the business model of a well-known company like Zara, Uber, Mercadona.

3.2.2.5. Duration

The course should last 18 hours.

3.2.2.6. Information sources and complementary resources

Different types of resources can be used to deepen into the Module's content or to prepare the suggested practices.

- Bibliographic references
 - A. Osterwalder, I. Pigneur (2011): "Generación de Modelos de negocio" Deusto SA Ediciones.
 - J. Mullins, R. Komisar (2010): "Mejorando el modelo de negocio: como transformar el modelo de negocio en un plan B viable". Alianza.
 - Ricart, J. (2009). "Modelo de negocio: El eslabón perdido en la dirección estratégica".
 Universia Business Review, 23: 12-25.
 - Zott, C., Amit, R. & Massa, L. (2011). "The business model: recent developments and future research". Journal of Management, 37(4): 1019-1042.
 - Hayashi, A. M. (2009). Do you have a "plan B"? MIT Sloan Management Review, 51(1), 10-11. Retrieved from https://search.proquest.com/scholarly-journals/do-you-have-planb/docview/224966927/se-2?accountid=14478

• Web references

- How to design a business model with a Business Model Canvas template
- http://ciberopolis.com/2011/08/20/como-hacer-un-modelo-de-negocio-con-un-canvas-o-lienzo/
- https://javiermegias.com/blog/2012/05/resena-del-libro-tu-modelo-de-negocio-busines-model-you/
- Analysis of Harvard' business case on Mercadona
- http://www.yorokobu.es/harvard-analiza-el-exito-de-mercadona/
- How to adapt the Business Model Canvas model for a Start-up
- https://javiermegias.com/blog/2012/10/lean-canvas-lienzo-de-modelos-de-negocio-parastartups-emprendedores/





• Multimedia contents

- YouTube "Modelo de negocio CANVAS explicado paso a paso en 6 minutos?" https://www.youtube.com/watch?v=ZQgXyiozmYY
- YouTube "El Modelo de negocio que revolucionó al mundo:Uber" https://www.youtube.com/watch?v=HzWNBwrPfGI
- Other resources
 - Business Model Canvas template





3.2.3. Business forms and statuses

3.2.3.1. Description

The legal requirements and procedures for the creation of a company vary from one country to another. Nevertheless, business forms and statutes are similar around the globe. Before stating a business, is vital to understand the different legal forms it can take and the conditions and benefits each form has. Besides, the selected legal form may defer depending on the number of associates, the available capital, the social purpose, and the legal responsibilities incurred by the associates and managers.

This module serves the entrepreneur to choose the most suitable legal form for its business. Besides, the module delves deeper in the administrative procedures for the creation of a business. In the case of this project the module should adapt to the country in which is being taught.

3.2.3.2. Intended learning outcomes

- Knowledge and understanding
 - Understand the differences between the legal forms of a company in terms of the capital, responsibility, and number of associates.
 - Learn about the fiscal aspects each legal form assumes.
 - Understand the characteristics of each legal form and identify the best option according to the needs and aim of the business.
 - Get to know the administrative procedures related to each legal form.
 - Understand the limitations and advantages of each legal form and its administrative procedures.
- Skills and abilities
 - Decision-making.
 - Ability to analyse information.
 - Ability to search for information.
 - Critical thinking
- Judgement and approach
 - -Development of critical reasoning in the analysis and synthesis of information.

3.2.3.3. Content

These contents should respond to the module's purpose and should be related to the practice activities to be carried out in point 4.

These contents may be presented in any viable format, be either a PPT file or any other resource listed in point 5.

- Concepts
 - Legal form: The legal form recognises the legal status of a legal person. The classification of legal forms is based on the legal responsibility assumed by the owners, the capital requirements, and on the requirements of tax regulations.
 - Natural person: a human being as distinguished from a legal entity (such as a corporation) created by a legal procedure.



- Legal person: a body of persons or an entity (as a corporation) considered as having many
 of the rights and responsibilities of a natural person and especially the capacity to sue and
 be sued.
- Limited liability: a situation in which the owners or other shareholders of a company are not responsible for all its debts if the company fails. An important characteristic of corporations and other business organisations is that investor's liability is limited to the extent of their investment. That is, if the company loses a lawsuit or has other debt, the judgment is against the company, and not its owners, or shareholders. If the judgment or debt makes the company go bankrupt, the shareholders would lose the value of their shares, but, because of the concept of limited liability, the judgment is not enforceable against the shareholder's other assets.
- Unlimited liability: a situation in which the shareholders of a company are responsible for all its debts if the company fails financially. Unlimited liability is the legal obligation of company founders and business owners to repay, in full, the debt and other financial obligations of their companies. The legal obligation generally exists in businesses that are sole proprietorships or general partnerships. Under the two business structures, each company owner is equally responsible for repaying the business' financial obligations.
- Taxation: Taxation is how a government, or the taxing authority, imposes or levies a tax on its citizens and business entities. From income tax to goods and services tax (GST), taxation applies to all levels.

Topics

- Types of liabilities: limited and unlimited
- Business legal forms
- Statutes and administrative procedures for the constitution of a company

3.2.3.4. Suggested Activities

This part is aimed at providing a set of possible activities to be conducted both by the whole group or by teams, so they achieve the learning objectives proposed in the learning unit.

- Topics for debate
 - Why is important to establish an adequate legal form?
 - Which are the most common legal forms chosen by entrepreneurs?
 - What kind of liability suits better to one business or another?
 - What are the differences between unlimited and limited liabilities?
- Practical activities

Teamwork, fieldwork, case discussions, problems and exercises of all kinds to reinforce knowledge and experience acquisition.

Each student is assigned a different company with a different legal form. They should make a presentation of why each company or entrepreneurial initiative has chosen that legal form and whether it was the correct choice according to the number of associates, responsibility and liability, and capital available.

Each presentation should be of 10 minutes. After all the PhD candidates has exposed their topic, a group discussion will be made.

3.2.3.5. Duration





The course should last two hours.

3.2.3.6. Information sources and complementary resources

• Bibliographic references

- O'Kelley, C. R., & Thompson, R. B. (2019). Corporations and Other Business Associations:
 Selected Statutes, Rules, and Forms, 2019. Aspen Publishers.
- Arando, S., Peña, I., & Verheul, I. (2009). Market entry of firms with different legal forms: An empirical test of the influence of institutional factors. International Entrepreneurship and Management Journal, 5(1), 77-95.
- Ogus, A. (2004). Comparing regulatory systems: institutions, processes and legal forms in industrialised countries. Leading issues in competition, regulation and development, 146-164.
- O'Kelley, C. R., & Thompson, R. B. (2019). Corporations and Other Business Associations:
 Selected Statutes, Rules, and Forms, 2019. Aspen Publishers.

Web references

- https://plataformapyme.es/es-es/IdeaDeNegocio/Paginas/IdeaDeNegocio.aspx
- https://plataformapyme.es/es-es/IdeaDeNegocio/Paginas/FormasJuridicas-Descripcion.aspx?cod=EIN&nombre=Empresario%20Individual%20(Aut%C3%B3nomo)&idioma=es-ES
- https://www.doingbusiness.org/en/data/exploreeconomies/spain#DB sb
- https://www.doingbusiness.org/en/data/exploreeconomies/sweden
- https://www.doingbusiness.org/en/data/exploreeconomies/france

Multimedia contents

Search www.YouTube.com for specific subjects



3.2.4. Business plan

3.2.4.1. Description

There are four pillars for a viable business project: a competent and cohesive promoting team, a feasible business opportunity coping with market needs, access to a minimum of material and financial resources, and, fourthly, but not less importantly, an itinerary describing the project to be developed and how it will be carried out. This last requirement is the so called "business plan".

In other words, the business plan is an instrument catalysing the ideas and efforts of the promoting team which sets them out in a clear and conclusive document that both serves to give the promoters the confidence of potential success, and to present the project to potential investors, lenders, and other agents interested in the new venture.

However, to prepare the business plan, an efficient working method is needed that allows the promoting team to take the appropriate steps. And this approach is also called "The Business Plan Method", understood as the work process that leads to the development of the final document mentioned above. This is the way to align the four key elements mentioned above.

Thus, The Business Plan Method consists of a sequence of steps aimed at evaluating the different aspects of the business project and concluding whether the project is viable or not. These steps coincide with the most common structure of a business plan and are addressed in other modules of this training programme.

3.2.4.2. Intended learning outcomes

This module aims to develop the following generic skills in PhD candidates:

- Knowledge and understanding
 - Assimilate the importance of applying a proven method to evaluate the viability of a business opportunity.
 - What a Business Plan is for.
 - What steps to take to develop a business plan.
- Skills and abilities
 - Development of creativity to find new ideas and propose solutions.
 - Ability to work in a team.
 - Leadership capacity.
 - Ability to work autonomously.
 - Ability to present work, ideas and opinions in public.
 - Ability to present written reports.
- Judgement and approach
 - Development of critical reasoning in the analysis and synthesis of information.

3.2.4.3. Content

Listing of knowledge pills and concepts to be acquired.

These contents should respond to the module's purpose and should be related to the practice activities to be carried out in point 4.

These contents may be presented in any viable format, be either a PPT file or any other resource listed in point 5.





Concepts

- Business project. Expression of the way in which the promoting team expects to develop a business opportunity. At first, this can be imprecise and informal. However, a rigorous effort to formalise it should culminate in a formal proposal defining which is the value proposal to a specific target market.
- Business plan method. Work process aimed at evaluating all aspects related to the viability
 of a business project and culminating in the preparation of a conclusive document called the
 Business Plan.
- Business plan. It is a document, which, desirably, has to be prepared by the promoting team itself, describing the details of the business project and justifying its viability both for the promoting team and third parties. In addition, it can be considered the "roadmap" to be followed to start the project.
- Feasibility analysis. Systematic study of the different parts that make up the proposed project in order to evaluate the extent to which they can be put into practice with current skills and resources. If these feasibility analyses provide a positive result, then detailed business plan should be written. If the result is negative, then the project should be reformulated, or abandoned.

Topics

- General flow of the Business Plan Method. Purpose and exit points
- Importance of a consistent and complementary project team
- Importance of a good market-customer definition
- Importance of maintaining an objective attitude during the process

3.2.4.4. Suggested activities

This part is aimed at providing a set of possible activities to be conducted both by the whole group or by teams, so they achieve the learning objectives proposed in the learning unit.

• Topics for debate

- Use a diagram of the Business Plan Methodology and discuss its logic. Comment on the circumstances under which it should be applied.
- Use the diagram of the Business Plan Methodology and comment which would be the "exit points" of the process, and what options would there be in each of them?
- There are circumstances in which the promoters of a project consider that it is not necessary to develop a business plan. What would these circumstances be? Do you think that, despite this, they should not apply the Plan's work methodology? Why?
- The Lean-start-up approach is also a useful method to start a business. When is it useful? What is the complementarity between the two approaches?
- One of the main obstacles that a promoter team may encounter when preparing its business plan is the search for external information. What are the main areas in which this occurs? How can this difficulty be addressed?
- A lot of confidential information is collected in a business plan that can be used by imitators or competitors. How can this risk be dealt with?





• Practical activities: bring some examples of business plans, distribute them among participant teams, have the teams analyse the business plans for 30 minutes and bring out the main issues calling their attention.

3.2.4.5. Duration

The course should last 12 hours.

3.2.4.6. Information sources and complementary resources

This is an open section in which resources of all kinds can be added, depending upon the Module's content and the capability to access the most suitable sources.

It is suggested that these resources are available in the participants mother language and are suitable for their comprehension level. As a general suggestion, reference books and material used in occupational training programmes.

- Bibliographic references
 - Muñiz, L. (2010): "Guía práctica para mejorar un plan de negocio: cómodiseñarlo, implantarlo y evaluarlo". Ed. Profit, Barcelona. http://bit.ly/quRul8
 - Muñiz, L. (2010): "Planes de negocio y estudios de viabilidad", Ed. Profit, Barcelona. http://bit.ly/qhr5iT
 - Stettinius, W.; Wood, D.R., DoYle, J.L. y Colley, J.L. (2009): "Plan de negocio: comodiseñarlo e implementarlo". Ed Profit, Barcelona. http://bit.ly/gncyO2
- Web references
 - What is a business plan? http://bit.ly/qNmhCr
 - The business plan: structure, importance, methodology and context: http://bit.ly/r2MRVw
- Multimedia contents
 - YouTube "How to develop a business plan?" http://bit.ly/oho1zc
 - YouTube "How to develop a successful business plan" http://bit.ly/oGclRv





3.2.5. Marketing

3.2.5.1. Description

This module introduces the key concepts, models and methods of the marketing process within a firm.

3.2.5.2. Intended learning outcomes

• Knowledge and understanding

Understanding of:

- what marketing implies in practice and of marketing as a firm-spanning process,
- basic marketing concepts, models and methods,
- general consumer behaviour and the demand for variety,
- the relationships between consumers and brands,
- the basic content of business to business marketing,
- the scope, role and tasks of marketing communication and the communication environment,
- the advantages and disadvantages of different marketing tools, and
- the use of marketing information within a firm.
- Skills and abilities

Ability to:

- analyse marketing problems related to consumer and business to business marketing from a firm perspective,
- identify factors, which influence consumer behaviour,
- develop suitable solutions to the marketing problems,
- perform simple market analyses,
- develop a simple marketing strategy, marketing plan, marketing budget and communication model, and
- apply simple digital tools and techniques for market communication.
- Judgement and approach

Capacity to:

- conceptualise how what the firm offers to the market is apprehended by both business and consumer customers,
- evaluate the firm's marketing strategy, and
- develop a constructive critical approach to different marketing efforts.

3.2.5.3. Content

Concepts

This module gives a broad introduction to market research, market analysis, marketing and market communication including

Best practices of marketing and marketing quality,





- Basic principles of consumer and business to business marketing,
- Customer value and interaction with customers,
- Social interaction, lifestyle and consumer behaviour,
- The role of market research and market analyses,
- Dimensioning of marketing budgets,
- The role of marketing communication,
- Interaction and network approaches,
- The use of digital technologies,
- Target group analysis,
- The communication of offerings to target groups,
- The choice of marketing channel,
- The choice of distribution channel, and
- Environmental aspects.

Topics

Important topics include

- overall marketing management,
- the competitors and the strength and weaknesses of their offerings and how they interact with their customers,
- the risk that new competitors may enter the market,
- the unique characteristics and aspects of the own product, i.e. its competitive advantage,
 and its potential to compete with product characteristics instead of price,
- market research and market analysis to establish market size and growth and to estimate which market share the product may gain in the short and the long term,
- the characteristics and dynamics of the market, the market segments and the marketing environment where the product shall compete,
- the demand for variety and the potential of the own product to be offered in different versions with varying characteristics, and thus the potential for market segregation,
- the choice of distribution channels,
- marketing strategy, i.e., how to enter the market, how to increase sales, how to attain a sustainable competitive advantage and how to earn profits,
- the choice of pricing strategy,
- the choice of location,
- the development of a marketing plan considering the above aspects,
- the development of a marketing budget with clearly stated goals
- the 8 P's: price, product, promotion, placement, people, physical environment, process and packaging,
- choice market massage and communication channels, and





the measurement of marketing effectiveness and marketing performance analysis.

3.2.5.4. Suggested activities

This part is aimed at providing a set of possible activities to be conducted both by the whole group or by teams, so they achieve the learning objectives proposed in the learning unit.

• Topics for debate

Topics for debate include:

- What problem does my product solve and how does it solve it?
- What makes my offer unique?
- How do I brand my product?
- How do I identify the market niche/segment for my product, i.e., what niche/segment will it fill?
- What is my main selling point? Price or product characteristics?
- How do I estimate the size of the market for my product in the chosen market niche/segment?
- How do I estimate the long-term potential for the chosen market segment?
- Who are my potential customers, where are they and what characteristics do they have?
- What is considered value among my potential customers?
- How do I identify and learn to know my competitors?
- What differentiates my product from the competitors' products?
- How do I develop and maintain a competitive advantage in my market niche/segment?
- What are the risks and threats I meet in the actual market niche/segment? What can I do to mitigate them?
- How much and what type of market research do I have to do?
- How do I use the 8 P's to sharpen my offer to the market?
- How do I determine the distribution channel(s) for my product?
- How do I decide which communication channel(s) to use for my marketing?
- How do I develop and maintain long-term relationships to my customers?
- Which are the necessary components of marketing plan?
- How do I determine how big marketing budget I need?
- How do I evaluate the efficiency of my marketing?
- How do I feed customer reactions back to the marketing planning and to product development?
- Practical activities

Introductory lectures, case analyses and practical exercises in making a basic market research, a basic marketing plan and a basic marketing budget.

3.2.5.5. Duration

The course should last 18 hours.



3.2.5.6. Information sources and complementary resources

This is an open section in which resources of all kinds can be added, depending upon the Module's content and the capability to access the most suitable sources.

It is suggested that these resources be suitable for the participants.

- Bibliographic references
 - The Fundamentals and Practice of Marketing (1984); E. Kaynak and R. Savitt, ed.
 - Comparative Marketing Systems (1986); E. J. McCarthy and W. D. Perreault, Jr.
 - Basic Marketing (10th ed. 1990); J. H. Ellsworth and M. V. Ellsworth
- Multimedia contents
 - marketing 101, understanding marketing basics, and fundamentals YouTube
 - MBA, marketing course YouTube
- Other resources: software
 - Active Campaign
 - Sleeknote
 - Geolid
 - Sprinklr





3.2.6. Funding

3.2.6.1. Description

Every business project has a financial economic side to the extent that all the material and human resources it needs have an economic valuation, as well as the purchases and investments to be undertaken for its operation. All these financial needs require financing, which can both come from the promoting team itself, as well as from other external sources.

It is therefore necessary to design a financial strategy that defines how the team will get the necessary financial resources to support the start of the project and its activity until reaching its financial stability. This balance between financial resource needs and the sources of funding available is critical to the feasibility of the project.

Therefore, this Module will address the creation of a company from a financial economic perspective.

3.2.6.2. Intended learning outcomes

- Knowledge and understanding
 - Understand the fundamental concepts related to the financial strategy of starting a new business.
 - Inventory the elements the entrepreneurial team must acquire to start the business, price them, and identify the financial resources it has at reach.
 - Understand the need to plan in time for both the investments to be made and the sources of funding to turn to.
 - Understand the risks, costs and alternatives involved in setting up a business.
 - Learn how to handle calculation tools for financial purposes, such as Excel and understand the results provided.
- Skills and abilities
 - Teamwork.
 - Decision-making.
 - Ability to analyse information.
 - Abstraction capability.
 - Ability to search for information.
- Judgement and approach
 - Result orientation
 - Confidence.

3.2.6.3. Content

Concepts

- Investment consists of allocating capital for the acquisition of a good (something material, such as a computer, or intangible, as a license) that will be used for a number of years in order to make a future profit. An investment should not be mistaken with an expense, which is related to a purchase of a material o service that will be used or consumed in a short time period.
- Investment plan. It consists of a temporary planning of the investments the company needs to start its operations and run over time. This planning considers the different resources that the company acquires and needs at the time it will start its operation.





- Investor. It is the person or entity that provides resources (either money or other assets) in a company expecting to obtain a future return on that investment. In the business world there is a wide range of potential investors, either close to the entrepreneur (family, friends, co-workers...) or professionals (private investors or Business angels, venture capital firms, banks, etc.) whose motivation is to invest in projects in search of a good return.
- Financing. Whereas an investment is related to the acquisition of the physical or immaterial means needed to start a company, financing is related to the origin of the monetary resources needed for that acquisition. If the money is provided by the owners, it is called "Equity" would be called Own Funds; if it provided by a third party (such as a bank or lender) and must be payed-back at some future time, it would be called "Debt". There are many kinds of debts, being the most important the so called "Loan".
- Equity. It is the amount of money provided by the owners when starting a new company. It
 will evolve through tine depending on the company's ability to generate profits, thus
 fostering its self-financing for the future.
- Loan. It is a debt contract by which one party, the lender –usually a bank-- grants the other party, the borrower --this is, the company-- a certain amount of money, with specific conditions related to pay-back period and interest rate. Sometimes, prospective company owners may get a personal loan to finance their purchase of equity of the new company.

Topics

- Types of Investments: long and short-term
- Funding Sources: long and short-term
- Investment-Finance Table
- Which are the basic financial statements for a new company?

3.2.6.4. Suggested activities

This part is aimed at providing a set of possible activities to be conducted both by the whole group or by teams, so they achieve the learning objectives proposed in the learning unit.

- Topics for debate
 - Why is debt necessary?
 - Which are the usual funding sources for a modest entrepreneur?
 - Which is the reasonable balance between equity and debt?
 - How to use financial statements to follow up a business.

Practical activities

- Any new business will require a series of investments to start operating. Now think about the busines you have in mind. Can you list the main investments to be made?. What concepts are considered expenses and which investments?
- How would you finance the concepts identified above?
- In your opinion, for each of the options showed below, which financing option is most appropriate:
 - o Buy or rent the machinery you need to operate your business.
 - o Pay for the investments you need at the start of the activity or defer them over time. In this second case, when and how would you finance them?
 - o And if sales do not behave as expected, or even temporarily decrease, what can you do to stay in business?



 Bring into the classroom several simplified examples of financial statements and discuss their meaning and structure.

3.2.6.5. Duration

The course should last 9 hours.

3.2.6.6. Information sources and complementary resources

This is an open section in which resources of all kinds can be added in the language most suitable for participants.

- Bibliographic references
 - Besley, S. y Brigham E. (2008): "Fundamentos de administración financiera". Cengage Learning Editores.
 - Burk, J. y Lehmann R. (2006): "Financing your small Business". Sourcebooks.
 - Gitman, L. (2003): "Principios de administración financiera". México, Pearson Educación, 10 edición.
 - Massons i Rabassa, J. (2008): "Finanzas: análisis y estrategia financiera". Barcelona, Editorial Hispano Europea SA. Colección ESADE.
 - Van Horne, J.C. (2002): Fundamentos de administración financiera. Editorial Pearson (11ª ed.).

Web references

- Asesores bancarios y financieros: www.abanfin.com
- Documentación sobre el plan económico financiero, "Plan Económico-Financiero I.
 Inversiones/ Financiación": www.cuadernalia.net/documentos/plan6.pdf
- Portal web del Servicio Regional de Empleo de la Comunidad de Madrid: www.emprendelo.es
- Portal web de la Junta de Castilla y León: www.emprendiendo.com
- Portal web de la Fundación Incyde, Consejo Superior de las Cámaras de Comercio: www.incyde.org
- Portal web de la Dirección General de Política de la Pyme, Ministerio de Industria, Turismo y Comercio: www.ipyme.org
- Portal web de Bancaja: www.jovenesemprendedoresbancaja.com
- Calculadora de préstamos: www.todoprestamos.com



3.2.7. Human resource management

3.2.7.1. Description

The course considers the concepts, practices and major functions of human resource management as they relate to the overall organisational goals and objectives. It is designed to familiarise PhD candidates with the basic principles of human resource management. Based upon classical and contemporary theory and empirical research, this course forms a humanistic and legal analysis of organisations, focusing on the role of human resource management in the creation of organisational strategy. Examines managers and leaders within organisations and their responsibility to optimise performance and make decisions based on ethical criteria.

3.2.7.2. Intended learning outcomes

The course begins with an overview. Work analysis and workforce planning, recruiting, staffing, and training are also examined. This foundation is used to examine how the human resource manager manages compensation and the safety and health of employees. The course concludes by analysing related concepts in a global context.

• Knowledge and understanding

The student will understand:

- The nature and diversity of employees' expectations and motivating factors
- The different components of human resource management: recruitment, labour relations, training and development, performance appraisal and feedbacks, pay and benefits
- The different approaches to managing human resources
- Skills and abilities

The student will be able to characterise the factors:

- Explain strategic human resource management and its effectiveness in a changing world.
- Evaluate the components of workforce planning and the different approaches to workforce planning.
- Apply the basic principles related to developing, implementing, and evaluating a recruiting programme for an organisation.
- Relate the different selection criteria and selection methods to organisational considerations.
- Discuss the importance of planning, designing, implementing, and evaluating training programmes in an organisation.
- Analyse the role and responsibilities of an organisation for ensuring the safety and health of its employees.
- Critically evaluate the challenges to human resource management in a global corporation and talent management.
- Formulate a compensation strategy that matches up with the organisation's business strategy and enhances motivation, productivity, and satisfaction among employees.
- Judgement and approach

After completion of the course, the student will be able to:

- Set up the recruitment process;
- Design the compensation structure;



- Draw up the job descriptions, including roles and responsibilities
- Build a labour framework favouring employees' fulfilment, commitment and crossfertilisation.

3.2.7.3. Contents

- The main concepts to be acquired include:
 - External factors
 - Industry characteristics
 - o Supranational, national, local features
 - Internal factors
 - o Company's structure: mode of operations, intra-organisational networks, coordination mechanisms, etc.
 - o Company's strategy: corporate-level strategy, business-level strategy, etc.
 - o Strategic human resource management
 - o Human resource function strategy
 - Human resource practices
- The main topics covered are:
 - General introduction to HRM
 - HRM and corporate strategy
 - Job analysis and design
 - Recruitment and selection
 - Training and development
 - Performance appraisal and management
 - Safety and health
 - Employee relations
 - What is talent?
 - Difference between HRM and Talent management
 - Talent management strategy

3.2.7.4. Type of instruction and activities

The course can combine (from less to more informal and less to more trainees' participation):

- Lectures
- Seminars
- Workshops

3.2.7.5. Duration

The course should last 9 hours. In addition, 27 hours of homework are expected from the trainees.

3.2.7.6. Information sources and complementary resources

- Bibliographic references:
 - Human Resource Management. 12th Ed., 2011, by G. Dessler, Prentice Hall





- Armstrong's Handbook of Human Resource Management Practice, 14th Ed., 2017 by M.
 Armstrong, Kogan
- Web references:
 - https://corporatefinanceinstitute.com/resources/knowledge/other/human-resourcemanagement/
- Multimedia contents:
 - https://www.youtube.com/watch?v=c8_avX9miag
 - human resource management basics and fundamentals YouTube



3.2.8. Growth management

3.2.8.1. Description

Investment decisions are the financial and strategic decisions par excellence. Rarely reversible, at least under satisfactory financial conditions, and generally mobilising significant resources, these decisions are at the origin of the company's development.

Companies achieve growth through internal or external growth.

Internal growth is achieved through the direct accumulation of production or marketing assets. It has the advantage of being more regular and therefore more easily controlled by the company. The disadvantage is that there it often takes a long time lag between the decision to invest and its expected effects.

External growth is achieved by taking control of other companies. There are many ways of achieving external growth: acquisition of shareholdings, transfer of assets, cooperation agreements, mergers and acquisitions, etc.

3.2.8.2. Intended learning outcomes

The purpose of this module is to teach PhD candidates the basic principles, methods and tools allow them to make decisions to ensure the growth of their company.

• Knowledge and understanding

The student will understand:

- The time value of money
- The general characteristics of investment
- The investment decision-making process
- The different modes of taking control of companies
- Skills and abilities

The student will be able to:

- Perform money discounting and capitalisation
- Evaluate equivalent and proportional rates
- Calculate annuities' current and final values
- Apply investment selection criteria
- Evaluate the investment risks
- Evaluate a company
- Judgement and approach

After completion of the course, the student will be able to:

- Set up strategic growth goals;
- Assess the different options in terms of costs, benefits and risks;
- Design, implement, monitor and review the growth plan according to the chosen option

3.2.8.3. Contents





- Concepts
 - Time value of money
 - Investment
 - Acquisition of companies
- Topics
 - Net present value
 - Discounting and capitalisation
 - Annual and proportional rates
 - Annuities
 - General characteristics of investment
 - Investment selection criteria
 - Investment decision and risks
 - Typology of takeover of companies
 - Business valuation
 - Account consolidation

3.2.8.4. Type of instruction and activities

The course can combine (from less to more informal and less to more trainees' participation):

- Lectures
- Seminars
- Workshops

3.2.8.5. Duration

The course should last 9 hours.

3.2.8.6. Information sources and complementary resources

- Bibliographic references:
 - The Business Growth Handbook by Colin Barrow, Kogan Page Ltd
 - Creating Business Growth by Stefan Drew, JVMM Group
 - Design Thinking for Business Growth by Michael Lewrick, John Wiley & Sons Inc.
- Web references:
 - http://freedownloadsapps.com/gatree-exe/69709-download.html
 - http://freedownloadsapps.com/dtreg/15531.html
- Multimedia contents:
 - https://www.youtube.com/watch?v=Rjv0nNXJjKs
 - https://www.youtube.com/watch?v=OWrXbul1l6l



3.2.9. Management accounting

3.2.9.1. Description

Internal management accounting systems serve a crucial role for firms

- to achieving their objectives and goals,
- to implement their strategies,
- to manage corporate governance, and
- to secure the sustainability of the firm.

This management accounting module highlights various types of management accounting systems and how they are implemented and used. A strong focus is on the costs of doing business, analysing costs and their behaviour and the design, implementation and use of budget-based performance evaluation systems.

3.2.9.2. Intended learning outcomes

- Knowledge and understanding
 Basic knowledge about fundamental concepts and models in management accounting.
- Skills and abilities

Basic skills and abilities to use management accounting concepts and models

- to make different types of cost estimates,
- to analyse the relationship between cost volume, revenues and profits,
- to identify, measure, and report risks for risk management,
- to prepare budgets and calculate relevant budget variances, and
- to identify and compute relevant performance measures in relation to different contexts and situations.
- Judgement and approach

Basic capacity to account for, analyse and critical discuss

- the consequences of costs calculation, performance measures and budgeting processes for firm actions,
- the handling of risks within a firm,
- some of the problems associated with traditional cost management, performance measures and budgeting, and
- some of the main ideas and tools for strategic cost management.

3.2.9.3. Content

Management accounting is a systematic set of procedures for recording and reporting measurements of the costs of manufacturing goods and providing services in detail and in the aggregate and to provide inputs to budgeting. It includes methods for recognising, classifying, allocating, aggregating and reporting these costs and comparing them with standard costs. Its goal is to inform the managers on how to optimise business practices and processes based on cost efficiency and capability. It provides the managers with the detailed cost information they need to control current operations and to make plans for future operations.





Concepts

The basic cost elements are

- Material costs consisting of direct and indirect material costs.
- Labour costs consisting of the wages paid to employees directly related to any specific activity of production, maintenance, and transportation, i.e. direct labour.
- Overheads including
 - o Production overhead including staff,
 - o Administration overhead including staff,
 - Sales overhead including staff,
 - o Distribution overhead including staff,
 - o Maintenance and repair including staff,
 - o Supplies including staff,
 - o Utilities,
 - o Other variable expenses,
 - o Other salaries,
 - o Occupancy,
 - o Depreciation, and
 - o Other fixed costs.
- Important classifications of costs include:
 - o By nature, or traceability: Direct and indirect costs,
 - o By function: production, administration purchases, selling and distribution and research and development,
 - o By behaviour: fixed, semi-fixed and variable,
 - o By controllability: controlled by conscious action or uncontrolled,
 - o By normality: normal costs and abnormal costs,
 - o By time: historical costs and predetermined costs, and
 - o By decision-making:
 - Marginal costs,
 - Differential costs,
 - Opportunity costs,
 - Relevant costs,
 - Replacement costs,
 - Shutdown costs,
 - Capacity costs,
 - Sunk costs





Topics

Standard cost accounting allocates the fixed costs incurred in the accounting period to the goods produced during that period. This allows the full costs of products that were not sold in the period they were produced to be recorded as inventory in the balance sheet to be carried forward to the next accounting period.

Activity-based costing is a system for assigning costs of products based on the regular activities performed in the firm that they require.

Lean accounting has been developed to provide the accounting, control and measurement methods supporting lean manufacturing and other applications of lean thinking.

Marginal costing is based upon a cost-volume-profit analysis, which systematically examines the relationship between selling prices, sales, production volumes, costs, expenses and profits. A contribution margin is calculated as the revenue excess from sales over variable costs.

3.2.9.4. Suggested activities

This part is aimed at providing a set of possible activities to be conducted both by the whole group or by teams, so they achieve the learning objectives proposed in the learning unit.

- Topics for debate
 - The central role of management accounting in the firm.
 - How to understand the various types of costs?
 - How to manage risks within a firm?
 - Why is it central for a new firm to minimise fixed costs?
 - Which are the central performance measures of a firm and how to calculate them?
 - How to understand the relationship between cost volume, revenues and profits?
 - How to prepare realistic income and costs budgets for different time horizons, and calculate relevant budget variances?
 - How to identify and value the major risks associated with the cost and income budgets?
 - How to use management accounting as an input for decision-making and planning?
 - How to gain cost advantages compared to competitors?
- Practical activities

Introductory lectures, seminars, case studies, and workshops.

Demonstrations and discussion about suitable software's. Instructions and exercises on how to use at least one software.

3.2.9.5. Duration

The course should last 9 hours.

3.2.9.6. Information sources and complementary resources

This is an open section in which resources of all kinds can be added, depending upon the Module's content and the capability to access the most suitable sources.

It is suggested that these resources be suitable for the participants.





• Bibliographic references

- Attrill, P. (2012) Management accounting for decision makers / Peter Attrill and Eddie McLaney. 7th ed. Harlow: Pearson Education Limited
- Drury, C. (2012) Management and cost accounting / Colin Drury. 8th ed. Andover: Cengage Learning EMEA.
- Proctor, R. (2012) Managerial accounting: decision making and performance management /
 Ray Proctor. 4th ed. Harlow: Pearson Education.

Relevant basic bibliography and documented contents in any format (paper, online platform, etc.)

- Multimedia contents
 - Module 1 Introduction to Management Accounting Video 1 YouTube
 - FINANCIAL vs MANAGERIAL Accounting YouTube
 - managerial accounting 101, managerial accounting definition, basics, and best practices -YouTube
- Other resources: software packages
 - Spendesk
 - Rydoo
 - Expensya





3.2.10. Financial accounting

3.2.10.1. Description

This module is designed to give an overall picture of the accounting cycle.

3.2.10.2. Intended learning outcomes

- Knowledge and understanding
 - Capacity to explain and discuss fundamental accounting concepts and the accounting cycle.
- Skills and abilities
 - To perform double entry bookkeeping and to prepare basic financial statements.
 - To analyse and interpret the financial reports of a firm.
 - To apply the accounting concepts in practice.
 - To use Excel to calculate basic accounting measures.
- Judgement and approach
 - Capacity to identify and interpret basic financial accounting problems

3.2.10.3. Content

Concepts

- Financial accounting
 - o is concerned with the summary, analysis and reporting of the financial transactions related to firm, and
 - o involves the preparation of financial statements and analyses that can be used for decision making, planning and performance evaluation by managers, boards, owners, investors and financiers.
- Financial statements:
 - o Statement of cash flows present the inputs and outputs in concrete cash within a stated period.
 - o Profit and loss statement presents the changes in value of a firm's accounts over a stated period (year, quarter, month) and makes it possible to compare the changes to changes in the same accounts in previous periods.
 - o Balance sheet, which shows a firm's assets, liabilities and own capital at a set point in time, usually the end of the accounting year and which makes it possible to compare with the financial position at the end of earlier periods.

Topics

- Basic financial accounting concepts according to the International Accounting Standards Board (IASB).
- Recording of selected business transactions.
- Preparation of annual accounts and annual reports.
- Introduction to financial ratios and their use in analysing financial statements.



 Accounting quality characteristics such as relevance, faithfulness, verifiability, comparability, understandability and timeliness.

3.2.10.4. Suggested activities

This part is aimed at providing a set of possible activities to be conducted both by the whole group or by teams, so they achieve the learning objectives proposed in the learning unit.

- Topics for debate
 - The financial plan
 - o How to define the financial goals of the firm?
 - o How to identify the necessary steps to attain these goals?
 - O How to make financial forecasts, i.e., an annual (and even more long-term) projection of a firm's incomes and expenses?
 - How to allocate future income to various types of investment, such as
 - product development,
 - market investment,
 - personnel development,
 - reinvestments,
 - capacity increases, etc?
 - The statement of cash flow
 - O How to understand the statement of cash flow, which only considers the exchange of actual cash and ignores what the firm in question owes or is owed?
 - O How to estimate what working capital is needed for the firm to continue its ongoing operations?
 - o How to estimate future cash needs?
 - How to plan on how to raise more cash through borrowing, issuing more shares, selling assets, etc?
 - The profit and loss statement

How to understand the profit and loss statement in terms of

- o Sales (revenue),
- o Costs of goods sold, selling, administrative and general expenses and depreciation/amortisation,
- o Earnings before interest and taxes,
- o Interest and tax expenses,
- o Net profit/loss?
- The balance sheet

How to understand the balance sheet in terms of



- o Current assets, i.e. cash, accounts receivable, inventory and prepaid expenses and the role of liquidity.
- o Non-current assets and the role of fixed assets and intangible assets.
- o Liabilities including current liabilities and long-term liabilities.
- o Owner's equity.
- The objectives of financial accounting:
 - o Systematic recording of transactions.
 - o Ascertainment of the financial result of the recorded transactions.
 - o Ascertainment of the financial position of the firm.
 - o Providing information for rational decision-making.
 - o Proving knowledge about the solvency position of the firm.
- The capital structure of the firm
 - o What are the sources of financing of firms?
 - o What are the advantages and disadvantages with different sources of finance?
 - o What is the optimal long-term mix of financing?
 - o How does the capital structure of a firm affect its risks?
 - o What are the advantages and disadvantages of using external debt as financing?
 - What are the advantages and disadvantages for the firm owner to open-up for external equity financing?
- Practical activities

Practical bookkeeping exercises, preparation and analyses of annual accounts and annual reports and computation of financial ratios.

Discussions and tests of suitable software packages for financial accounting.

3.2.10.5. Duration

The course should last 9 hours.

3.2.10.6. Information sources and complementary resources

This is an open section in which resources of all kinds can be added, depending upon the Module's content and the capability to access the most suitable sources.

It is suggested that these resources be suitable for the participants.

- Bibliographic references
 - Edwards, J., 1989. A history of financial accounting. London: Routledge.
 - Horngren, C. and Harrison, W., 2008. Financial and managerial accounting.
- Multimedia contents
 - FA1 Introduction to Financial Accounting YouTube
 - Financial Accounting YouTube





- Other resources: software packages
 - Mint
 - GnuCash
 - AceMoney Lite



3.2.11. Procurement management

3.2.11.1. Description

Any company, from its inception, needs to source different goods and services to carry out its activity. Sometimes, procurement and purchasing are interchangeable words, however, they have different meanings. Procurement is concerned with acquiring all the goods, services and workforce required by an organisation, and therefore includes strategic activities beyond purchasing. Procurement is broader than purchasing, which basically refers to buying goods and services.

The procurement function is very relevant not only because of its impact on operations and costs, but also because of its relevance to the company's competitiveness. Nowadays it is not only important that goods and services are obtained at a good price, but also that companies can ensure the reliability and flexibility of their suppliers.

This module introduces procurement policies by looking at the types of products and services and supplier management. It is also necessary to go into the operational management of procurement with the procurement process, the evaluation and selection of suppliers and aspects related to negotiating and contracting with suppliers.

Also, depending on the final time available for the module, outsourcing models and the motivations and risks involved in this type of decision can be included.

3.2.11.2. Intended learning outcomes

Knowledge and understanding

The student should understand:

- The elements that a company's procurement model should include.
- The types of products and services from a strategic and operational perspective.
- Supplier relationship models.
- The key aspects of procurement operations: supplier scoring, contract negotiation, managing sourcing, etc.
- How to develop the procurement function.
- Criteria and models for a proper outsourcing.
- Skills and abilities

The student should develop the following skills:

- Analytical skills
- Decision making
- Negotiation
- Ability to manage suppliers globally
- Judgement and approach
 - Business orientation
 - Flexibility and adaptation to the environment
 - Globalisation



3.2.11.3. Content

Concepts

- Procurement model is the group of strategies and policies, processes and procedures, and the organisational support structure needed to select, purchase, and bring the products and services procured from third parties to their destination, both now and in the future.
- Procurement function integrates the processes and people needed to execute the purchases.

Types of products:

- o Direct products are all the products included into the final product: raw materials, components, subassemblies, and auxiliary materials. These products are important because the production process would be interrupted without them. The procurement department must coordinate with production planning to know the requirements (quantity and time).
- o Indirect products are all products needed for maintenance, repairs and operations supplies and for support activities (sales, marketing, finance, IT, human resources, etc.). They are usually cheaper and can be purchased directly by the consuming department, although with supervision.

Types of services:

- o Direct services are part of the final service.
- o Indirect services are necessary for the operation of the company, such as water and energy supplies, construction and engineering projects, maintenance and repair, IT and telecommunications, logistics and transport, freight, legal, tax, consultancy, training, uniforms, laundry, security, waste management, catering services, cleaning, etc. A distinction is made between utility-type services and professional services based on the frequency and cost they may represent for the company.
- Acquisition of capital equipment, (such as machinery, plant and equipment) are purchases that only happen on rare occasions, involving significant investments, and are decisions involving the procurement department, the production department and are overseen by the general management.
- Procurement process represents the steps and activities that are normally included in the procurement cycle: preparation (set-up), tactical management (sourcing) and operational management (purchasing).
- RFI: Request for Information is an administrative process aimed at collecting general information about a supplier's products or services. It includes information about the requesting company, request for information about the supplier company, request to sign a confidentiality agreement, if necessary, general pricing and supply conditions together with the deadlines for the submission of the required information and next steps.





- RFQ: Request for Quotation. A request is made to different suppliers for the price of a specific service or product. It is used when the requesting company is very clear about the need to be covered and the solution it wishes to contract. It includes information on the requesting company, a specific request for the price of a product or service offered by the supplier company, specifying in detail what this product or service should include, a request to sign a confidentiality agreement if necessary, and deadlines for the submission of the required information.
- RFP: Request for Proposal. This sets out the needs of a company in a specific field, such as telecommunications, to different suppliers so that they can present their best solution to the needs proposed and the budget for this solution. It is a complex request in which it is necessary to exhaustively detail the starting point and what is expected to be achieved, not only in economic terms, but also in terms of quality, security, execution, etc. It includes signing of a confidentiality agreement, if necessary, information about the applicant company, objectives of the procurement process, description of the current situation and expected improvements, details about the project implementation and project schedule.
- SLA: Service Level Agreement is a documented agreement between a service provider and a customer that identifies both the services required and the expected level of service.
- Incoterms (derived from international commercial terms) are terms of the agreement that reflect the rules voluntarily accepted by the parties to a contract for the international sale of goods regarding the conditions of delivery of the goods. They are used to clarify the costs of international commercial transactions, delimiting the responsibilities between buyer and seller, and reflect current practice in the international carriage of goods.
- Outsourcing consists in transferring to an external third party the resources (assets and persons) to perform activities formerly done within the company.

Topics

The topics covered in the module are:

- Procurement model
 - o Types of products and services: Strategic matrix
 - Models of relationships with suppliers
- Operational management of procurement:
 - o Procurement process
 - Evaluation of suppliers (scoring)
 - Selection of suppliers
 - o Negotiation, contracts, and SLA
 - Purchasing process
- Defining procurement in the company
- Outsourcing: models, motivations and risks





3.2.11.4. Suggested activities

This part is aimed at providing a set of possible activities to be conducted both by the whole group or by teams, so they achieve the learning objectives proposed in the learning unit.

- Topics for debate
 - How does procurement management create value for the company?
 - Do you believe that good procurement management can create a competitive advantage?
 - Do service companies need to procure products and capital equipment?
 - What criteria would you use to categorise the products or services procured from a strategic perspective?
 - How do you view outsourcing? What are the advantages and disadvantages of outsourcing?
 - Do you think it is cheaper to outsource than to do it in-house?

Practical activities

Here are some activities that can be carried out in teams if the PhD candidates are grouped around a business project or individually:

- Define the products and services that need to be supplied by the company. Quantify and value them. Subsequently, categorise them from a strategic and operational point of view.
- Design the purchasing process for each product and service.
- Identify potential global (if necessary) suppliers for the products and services listed, establish
 the criteria for supplier evaluation and determine which would be selected.
- Determine which RFx document would be required in each product or service case and use a template to draft model RFx documents.
- Identify which services would be most suitable for outsourcing and define for some of them the SLA.

3.2.11.5. Duration

The course should last 9 hours.

3.2.11.6. Information sources and complementary resources

- Bibliographic references
 - Jacobs, F.R.; Chase, R.B. (2018): Administración de Operaciones: Producción y cadena de suministro. 15ª Edición. McGraw-Hill.
 - Moscoso, P.; Lago, A. (2017): Operations Management for Executives. McGraw-Hill.
 - Van Weele, A. (2014): Purchasing and supply chain management. Cengage. 6th edition.
- Web references
 - https://www.sourcing-force.com/en/the-ultimate-guide-to-procurement-management/
 - The 10-Minute Handbook on Procurement Management [2021] (kissflow.com)
 - https://www.slideshare.net/mostafaelgamala7/procurement-management-68495504
 - https://www.emprendedores.es/gestion/gestion-de-compras/





- https://www.emprendedores.es/gestion/como-hacer-plan-compras-proveedores/
- Multimedia contents
 - What is Procurement v Purchasing YouTube
 - The Basics of Procurement Management YouTube
 - Best Practices in Procurement YouTube
 - B2B Purchasing Negotiation Five Strategies to Reduce Vendor Prices YouTube
 - Importance of Procurement Importance of Procurement | Coursera
 - Procurement Processes Procurement Processes | Coursera
 - Direct vs. Indirects Directs vs. Indirects | Coursera
- Other resources
 - RFI, RFQ, RFP, SLA templates



3.2.12. Corporate law

3.2.12.1. Description

This course provides an introduction to legal areas commonly encountered in the business world: contracts, business structures and employment law. PhD candidates will be expected to learn and employ key vocabulary as a means to process and accurately communicate legal notions. It will explore the nature of a contract, the role it plays in society and business and common principles and methods shared by various jurisdictions. The range of issues that arise when entering and enforcing contracts shall be introduced, including types of contracts, contract formation and content as well as remedies for breach. The comparative contract textbook incorporates statutory and case analysis methods in both the civil and common law traditions, as well as transnational perspectives.

3.2.12.2. Intended learning outcomes

The course will provide an overview of the various business structures and the legal documents required to create them, the different players involved in setting up a legal entity, the types of liability placed on business owners, and the concepts of insolvency and bankruptcy. Finally, an introduction to employment and labour law in the concerned systems. Highlights include labour unions and collective bargaining agreements, workplace regulations and remedies, social protections and employee benefits, employment contracts and dismissals.

- Knowledge and understanding
 - Obtained a general knowledge of the regulation of companies and the legal environment in which they operate;
 - Acquired specialised knowledge in key areas of corporate law of relevance to the business community;
 - Understood the roles, functions and duties of the board of directors, management and shareholders, and their relationships with other corporate stakeholders.

Skills and abilities

- Apply the knowledge and skills they will have acquired in relation to basic economic analysis
 of the law and its practical application
- Analyse critically, evaluate and convey information, and generate ideas and solutions to complex problems from both theoretical and practical perspectives in the subjects studied in the field of corporate law
- Apply knowledge and skills to demonstrate autonomy, well-developed judgment, adaptability and responsibility as a practitioner or learner in the field of corporate law.

• Judgement and approach

- Soundly understand the changing knowledge base in the relevant area of law
- Evaluate and synthesise existing knowledge in the area
- Develop legal problem solving abilities characterised by flexibility of approach
- Advanced competencies in legal research and analysis

3.2.12.3. Contents

Concepts





The main concepts to be acquired include:

- Corporate law
- Corporate taxation
- Leaders' duties and responsibility
- Contract writing and interpretation
- Topics

The main topics covered are:

- Principles of corporate law
- Comparative corporate tax
- Contract interpretation
- Corporate governance and directors' duties
- Corporate insolvency
- Personal property securities law
- Regulatory policy and practice
- Shareholders' rights and remedies
- Legal leadership essentials

3.2.12.4. Type of instruction and activities

The course can combine (from less to more informal and less to more trainees' participation):

- Lectures
- Seminars
- Workshops

3.2.12.5. Duration

The course should last 12 hours.

3.2.12.6. Information sources and complementary resources

- Bibliographic references:
 - Smits, Jan M. (2017) Contract Law: A Comparative Introduction (2nd ed.) Elgar, ISBN: 978 1 78536 877 6
 - Adams, Alix (2017) Law for Business Students (10th ed.) Pearson, ISBN: 978 1 292 20842 8
- Web references:
 - https://www.e-elgar.com/textbooks/smits
- Multimedia contents:
 - https://www.youtube.com/watch?v=nnis4ac1-M0
 - https://www.youtube.com/watch?v= QiTPhKmoeA



3.2.13. Entrepreneurship

3.2.13.1. Description

Entrepreneurship is the capacity and willingness to develop, organise and manage a business venture along with the associated risks to make a profit. This module focuses on the entrepreneur as an actor and his/her endeavour in the process of starting and running a business. The module provides an understanding of different contents, roles and contexts of entrepreneurship and helps participants to find their entrepreneurial mindset through critical reflection and practical experimentation. One aim is to develop the necessary understanding and skills among participants to engage in creative problem-solving both as an individual and as a team member.

3.2.13.2. Intended learning outcomes

- Knowledge and understanding
 - one's own entrepreneurial goals and motivation,
 - the process nature of entrepreneurship and how this process can be organised,
 - key concepts and models around the value proposition,
 - typical challenges for new ventures,
 - the characteristics of creative processes and their role in the entrepreneurial process, and
 - the role of entrepreneurship for the individual and for society.

Skills and abilities

- identify and/or create new business ideas and business opportunities as well as their potential sources,
- use established tools and techniques to critically evaluate the feasibility and market potential of business opportunities,
- providing suggestions for overcoming identified challenges,
- develop venture ideas towards enactment in practice,
- implement new business opportunities in entrepreneurial contexts, and
- design an investor pitch.

Judgement and approach

- assess and critically reflect on one's own as well as others' entrepreneurial goals, attitudes, motivation, readiness and potential,
- reflect on the challenges and opportunities connected to the entrepreneurial process,
- appraise the creativity aspects of entrepreneurial processes and outcomes,
- assess whether suggested business solutions are novel, effective and appropriate,
- craft the own entrepreneurial mindset and how it can be sharpened, and
- reflect on ethical issues related to starting and running a business and how ethical dilemmas can be handled.

3.2.13.3. Content

Concepts





- Different perspectives on entrepreneurship,
- The entrepreneurial mindset,
- Personal goals,
- Entrepreneurial motivation,
- Entrepreneurial ability,
- Entrepreneurial readiness,
- Entrepreneurial creativity,
- Entrepreneurial opportunities,
- Feasibility of business opportunities,
- Entrepreneurial networks,
- Entrepreneurial action,
- Entrepreneurial success factors, and
- Entrepreneurship in action.

Topics

- critical evaluation of own skills, experiences, motivation, goals, readiness and networks,
- creative thinking individually and in teams to identify/create and develop new business opportunities,
- creative problem-solving,
- the fit between type of business opportunity and decision-making model,
- the identification and critical evaluation of business opportunities
- the refining of business opportunities and their competitive advantage,
- systems perspectives and the use of networks,
- the critical evaluation of the feasibility of business ideas,
- the business model (i.e., how will the new firm earn money?),
- criteria for not starting a business, and
- the documentation and communication of the business idea in a business plan.

3.2.13.4. Suggested activities

This part is aimed at providing a set of possible activities to be conducted both by the whole group or by teams, so they achieve the learning objectives proposed in the learning unit.

- Topics for debate
 - How to know if I am suitable as an entrepreneur? Do I have an entrepreneurial mindset?
 - How do I know that I have the right motivation to be an entrepreneur?
 - How do I know that I have the right readiness to become an entrepreneur?
 - How do I know that I am qualified to become an entrepreneur?
 - How and where can I/we identify business opportunities?
 - Which are the best techniques to evaluate business opportunities?



- Which criteria should I use when I evaluate business opportunities?
- How do I develop a business opportunity to a new venture ready to start-up?
 - o What problem do my product solve? What niche will it fill?
 - o How does my product solve the problem?
 - o How are my potential customers? How do I select customers?
 - o How will I market and sell the product?
 - o How do I define and differentiate my offerings?
 - o What is the size of the market?
 - o What is my business model, i.e., how will I make money?
 - o Who are the competitors?
 - o How do I enter the market?
 - o How will I maintain a competitive advantage?
 - o How can I develop my critical thinking?
 - o How do I know I have a strong business idea?
 - o What factors might increase the probability that a new business might succeed?
 - o Which criteria should be fulfilled for making it worthwhile to start a new business?
 - o How can I sharpen my value proposition?

Practical activities

The practical activities consist mainly of hands-on interactive and creative workshops and brainstorming sessions in entrepreneurial settings using group-dynamic methods, which are followed with critical evaluations and discussions. Participants will on their own and in teams identify business opportunities and select business opportunities for refinement and evaluation of feasibility ready to document in a business plan. Participants will be encouraged to critically reflect on their own and the teams creative, cognitive and decision-making processes while identifying and evaluating the feasibility of the business in an entrepreneurial context.

3.2.13.5. Duration

The course should last 12 hours.

3.2.13.6. Information sources and complementary resources

- Bibliographic references
 - Kurato D., Entrepreneurship: Theory, Process, Practice
 - Dollinger M.J., Entrepreneurship Strategies and resources
 - Hisrich R.-D., International Entrepreneurship Starting, Developing, and Managing a Global Venture
- Multimedia contents
 - entrepreneurship 101, understanding entrepreneurship basics and fundamentals YouTube
 - Who Even Is An Entrepreneur? Crash Course Business Entrepreneurship #1 YouTube
- Others: software packages





- Caflou
- Odoo



3.2.14. Self-assessment

3.2.14.1. Description

Owning a business is the dream of many people... starting that business converts your dream into reality. But there is a gap between your dream and reality that can only be filled with careful planning. As a business owner, you will need to avoid yourself to avoid pitfalls, achieve your goals, and build a profitable business. Going into business requires a certain personal characteristics, conditions, skills and experience. So does the entrepreneurial to be feasible. Not having them does not mean that you are necessarily doomed to fail but overcoming these gaps would increase your chance of success.

3.2.14.2. Intended learning outcomes

These questionnaires are meant to make PhD candidates self-assess their personality in relation with entrepreneurship and their readiness to start a business

Knowledge and understanding

The PhD candidates will be aware of:

- All the challenges they have to overcome to start a business
- Personal improvements they have to achieve to ensure the success of their business
- Skills and abilities

The PhD candidates will be able to assess

- Their suitability to entrepreneurship and how to improve it.
- Their readiness to start a business and the weaknesses they have to fix before turning entrepreneurial intentions to reality
- Judgement and approach

After completion of the course, the PhD candidates will be able to assess:

- their personality's suitability to entrepreneurship
- the suitability of their personal conditions to business creation and running
- the feasibility of their entrepreneurial idea

3.2.14.3. Contents

- Concepts
 - Personal characteristics
 - Personal conditions
 - Personal skills and experience
- Topics
 - Reasons to start a business

Freedom from the daily work routine	
Being your own boss	
Doing what you want when you want	
Improving your standard of living	





		Bored with your present job					
		☐ Demand for a product or service					
	□ Other						
Personal characteristics							
	Agree	Disagree					
			You are a leader.				
			You enjoy making your own decisions.				
			You turn to others when making a decision.				
			You enjoy competition.				
			You have strong willpower and self-discipline.				
			You plan ahead.				
			You like people.				
P	Personal conditions						
	Agree	Disagree					
			Are you aware that running your own business may require working 12-16 hours a day, six days a week, and maybe even Sundays and holidays?				

Do you have the physical stamina to handle the workload and schedule? Do you have the emotional strength to withstand the strain? Are you prepared, if needed, to temporarily lower your standard of living until your business is firmly established? Is your family prepared to go along with the strains they, too, must bear? Are you prepared to lose your savings? Are you aware that running your own business may require working 12-16 hours a day, six days a week, and maybe even Sundays and holidays?

Personal skills and experience

Certain skills and experience are critical to the success of a business. Since it is unlikely that you possess all the skills and experience needed, you'll need to hire personnel to supply those you lack. There are some basic and special skills you will need for your particular business.

By answering the following questions, you can identify the skills you possess and those you lack (your strengths and weaknesses).





		ness to be successful, what are needed?	List your professional training and business education	
Yes	No	Do you possess those skills?		
Yes	No	When hiring personnel, will you be able to determine if the applicants' skills meet the requirements for the positions you are filling?		
Yes	No	Have you ever worked in a managerial or supervisory capacity?		
Yes	No	Have you ever worked in a business similar to the one you want to start?		
Yes	No	If you discover you don't have the basic skills needed for your business, will you be willing to delay your plans until you've acquired the necessary skills?		

Idea assessment

- o Identify and briefly describe the product or service you want to sell
- o What unfilled need does your product or services satisfy?
- o Will your product or service serve an existing market in which demand exceeds supply?
- o How will your product or service be competitive?
- o Who are your customers?
- o What are their needs and desires?
- o Where do they live
- o Will you be offering the kind of products or services they will buy?
- o How does your business compare with other competitors?

3.2.14.4. Duration

The course should last 6 hours.

3.2.14.5. Information sources and complementary resources

• Bibliographic references:

- Entrepreneurial traits of undergraduate students at selected South African tertiary institutions, L. Louw, S.M. van Eeden, J.K. Bosch, D.J.L. Venter, International Journal of Entrepreneurial Behaviour & Research, 2003
- The Relationship of Entrepreneurial Traits, Skill, and Motivation to Subsequent Venture Growth, J. Robert Baum and Edwin A. Locke, Journal of Applied Psychology, 2004

Web references:

- https://grasshopper.com/blog/9-professional-assessmenttools/#:~:text=The%20PAVF%20entrepreneur%20self%20assessment,%3D%20Visionary%2 0and%20F%20%3D%20Friend.
- https://www.bdc.ca/en/articles-tools/entrepreneur-toolkit/business-assessments/self-assessment-test-your-entrepreneurial-potential

Multimedia contents:

https://www.youtube.com/watch?v=PLFFqdrf38chttps://www.youtube.com/watch?v=HAnw168huqA





– https://www.youtube.com/watch?v=POaaev0j2CQ





3.2.15. Design thinking

3.2.15.1. Description

This module aims to develop one of the basic soft skills entrepreneurs need, whether their activity is focused on supplying products to the market or providing services: creativity. This will be achieved with one innovative method used to evaluate problems, develop ideas, and create innovative solutions with the user in mind.

Design thinking is a strategy and mindset that can be applied to any industry to solve problems. It focuses on the importance of user understanding and the development of desirable, feasible, and viable ideas.

It is an iterative process, which brings the company closer to undiscovered, disclosed but not considered, or undiscussed, solutions and generates innovation.

Nowadays design thinking is handled with other methodologies (lean and agile) allowing the generation of synergies.

3.2.15.2. Intended learning outcomes

• Knowledge and understanding

The student should know and understand:

- What Design Thinking is, what its principles are, and the stages for its implementation.
- User-centred research skills to gain user empathy through interviews and observations.
- Describe the systematic process to define and solve product or business problems.
- Strategies to understand the user's context to identify and verify business problems.
- Ideation and visualisation techniques to generate targeted and creative solutions that integrate product configuration, functionality, and user experience with best practices for communicating your solution to stakeholders.
- Methods for evaluating and applying user feedback from testing models and prototypes to identify preferred solutions.
- Skills and abilities

The student should develop the following skills:

- Observation
- Empathy
- Creativity
- Multidisciplinarity
- Analytical skills
- Decision-making
- Judgement and approach
 - Resolve ill-defined or 'wicked' problems
 - Adopt solution-focused strategies
 - User centred
 - Flexibility and adaptation to the environment



- Globalisation
- Employ non-verbal, graphic/spatial modelling media, for example, sketching and prototyping.

3.2.15.3. Content

Concepts

Design Thinking is a human-centred way of solving problems that balances commercial and technical realities. It is a set of practices, tools, principles, and a defined process that starts with empathy for people. It values emotion as a core component of what really drives human behaviour and how people experience the world. Its objective is to create new value that is highly desirable for customers, that a business can sustainably deliver and is commercially viable.

Design thinking phases

- o Phase 1- Empathise: Practising Design Thinking implies becoming researchers of human behaviour and gaining a deep understanding of the needs of the users involved in the solution we are developing, and also of their environment. Empathising with people will help to generate solutions that are consistent with their realities. It is also very important to be aware of social, technological, and economic trends in the market.
- o Phase 2- Define: To define the challenge it is necessary to understand the strategic dimension of the proposal (new business, line of products/services, a product). Summarising the knowledge generated so far generates new and interesting perspectives. Identifying the problems and understanding them will allow structuring the opportunities on which to create innovative solutions.
- o Phase 3- Ideate: This is the moment to devise and develop solutions. There are various techniques for generating ideas, from brainstorming, thinking hats, rethinking hypotheses (what if), generating forced relationships (hybridisation), building metaphors, etc. The aim is to generate an endless number of options (divergent thinking), giving free rein to expansive thinking and eliminating value judgements. Sometimes it is the most outlandish ideas that generate visionary solutions. Subsequently, it will be necessary to converge towards the concrete idea.
- o Phase 4- Prototyping: Prototyping in design consists of materialising ideas. A prototype can be a drawing, a model or a cardboard box. It is a way of defining and transmitting an idea quickly; to create a link for communication and discussion. Being able to see or touch the ideas helps to visualise possible solutions, highlighting elements that need to be improved or refined.
- o Phase 5- Testing: This is the moment when prototypes are tested with users. This empirical validation phase is the key to being able to identify faults to be resolved, significant improvements or possible shortcomings. It is a cycle of iterations of ideation, prototyping and testing that will allow the idea to evolve until it becomes the solution that was sought.
- Minimum viable product (MVP) is the executable version of a system or a version, with only the most basic functions. It is the first version of our product with enough functionalities for the first customers to interact with it and collect validated information for the further



development of the product and the business idea. A minimum viable product can be anything from a sales story to a navigable application with a single functionality. It will depend on what we want to validate and where we are in the project or process.

- Minimum viable ecosystem (MVE) is a working collaboration based on a key functionality between initial partners in the ecosystem.
- Customer Journey Map is a Design Thinking tool that helps us to visually identify and study the customer experience from pre-purchase to post-purchase, both with a product or service brand.
- Empathy map is a visual tool used to gain insight into a user's perspective. Using one allows
 you to tap into a user's mind and gain their unique perspective. Empathy maps are great in
 all scenarios where you must consider user feelings.
- Agile is a software development process that works in iterative, incremental cycles known as "sprints". Unlike traditional development methods, agile is flexible and adaptive.
- Lean UX, based on the foundation of Agile development, is a user-centric approach that focuses on reducing the waste produced during the design cycle, and enhancing the UX through multiple iterations without spending much time on documentation.
- Design Thinking, Lean, and Agile work together. Design Thinking is a solution-based approach to exploring and solving problems. It focuses on generating ideas with a specific problem in mind, keeping the user at the heart of the process throughout. Once you've established and designed a suitable solution, you'll start to incorporate lean principles—testing your ideas, gathering quick and ongoing feedback to see what works—with particular emphasis on cross-team collaboration and overcoming departmental silos. Agile ties all of this into short sprint cycles, allowing for adaptability in the face of change. In an agile environment, products are improved and built upon incrementally. Again, cross-team collaboration plays a crucial role; agile is all about delivering value that benefits both the end user and the business as a whole.
- Together, Design Thinking, Lean, and Agile cut out unnecessary processes and documentation, leveraging the contributions of all key stakeholders for continuous delivery and improvement.

Topics

The topics covered in the module are:

- Design Thinking Fundamentals
- Empathising to Understand the Problem
- Ideation, Iteration and Communication
- Prototyping and User Testing

3.2.15.4. Suggested activities

This part is aimed at providing a set of possible activities to be conducted both by the whole group or by teams, so they achieve the learning objectives proposed in the learning unit.

- Topics for debate
 - What is the business value of Design Thinking?





- Is Design Thinking a linear or iterative process?
- How do Design Thinking, Lean, and Agile work together?
- Practical activities

Here are some activities that can be carried out in teams if the PhD candidates are grouped around a business project or individually. These activities are related to design thinking phases

- Empathise:
 - o Observation activities with the AEIOU method (activities, environments, interaction, objects, users)
 - o Detailing the customer journey with the Customer Journey Map
 - o Define user profiles
 - o Empathy mapping
 - o Define content for a user interview
- Define
 - o Map of what-if questions...? why...? what's stopping it?
 - o Opportunity exploration can involve stakeholder interviews, market research, ethnographic research, and synthesis.
 - o Identify key issues
- Ideate:
 - Apply different methods that allow the generation of ideas: Brainstorming, Thinking Hats,
 SCAMPER, etc.
- Prototyping:
 - o Represent prototypes using illustrations, story boards and low fidelity prototypes.
- Testing:
 - o Identify the value of the design process to customers using tools such as Business Model Canvas.

3.2.15.5. Duration

The course should last 12 hours.

3.2.15.6. Information sources and complementary resources

- Bibliographic references
 - Lewrick, M.; Link, P.; Leifer, L. (2018). The design thinking playbook: mindful digital transformation of teams, products, services. Wiley. New Jersey.
 - Osterwalder, A.; Pigneur, Y. (2009): Business Model Generation: A Handbook for Visionaries,
 Game Changers and Challengers. Amsterdam. Self published.
 - Osterwalder, A.; Pigneur, Y.; Bernarda, G.; Smith, A. (2014): Value proposition design. Wiley.
 New Jersey. USA.
 - Stickdorn, M.; Hormess, M.; Lawrence, A.; Schneider, J. (2018). This is service design doing.
 O'Reilly Media Inc., Canada.
 - Stickdorn, M.; Schneider, J. (2011). This is service design thinking. Wiley. New Jersey. USA.





• Web references

- Comunidad Thinkers | Thinkers Co.
- Building a design-driven culture | McKinsey
- IDEO is a global design and innovation company | ideo.com
- Sprint diferencias Design Sprint, Design Thinking, Agile, Scrum, Lean Startup (letshackity.com)

Multimedia contents

- About Design Thinking
 - o Tim Brown: Designers -- think big! | TED Talk
 - o The Design Thinking Process YouTube
 - o Design Thinking | Doreen Lorenzo | TEDxUTAustin YouTube
- About Creativity
 - o How to build your creative confidence | David Kelley YouTube
- Some examples
 - o IDEO is a global design and innovation company | ideo.com
 - o The Invisible Bicycle Helmet | Fredrik Gertten on Vimeo
 - o Meals Per Hour YouTube
 - o The Deep Dive Part 1 of 3 YouTube
 - o The Deep Dive Part 2 of 3 YouTube
 - o The Deep Dive Part 3 of 3 YouTube

Other resources

- o Tools | Service Design Tools
- o Design Kit
- o Herramientas de Design Thinking | Thinkers Co.
- o Design Thinking en Español
- o Smaply | Online tool for journey maps, personas and more



3.2.16. Leadership

3.2.16.1. Description

This module contains the basic elements for understanding leadership as a concept and how to apply it in your business. Leadership can be understood as the ability of managers to influence people towards the achievement of a goal. Specifically, leadership can be understood as the ability to inspire others, with or without authority.

In entrepreneurship, being a leader means being capable of influence through awareness of the impact of each action, ability in terms of communication and being committed to your ideas. These characteristics of leadership are key for the adaptability needed in an entrepreneurial context.

3.2.16.2. Intended learning outcomes

- Knowledge and understanding
 - Understand the concept of leadership and identify the key components that differentiate a leader from an authority position
 - Identification of skills to lead teams
 - Know the profile of a good manager
 - Understand the relationship between entrepreneurship and leadership
 - Learn how to communicate ideas and plans in an assertive manner
 - Get to know what skills each student has as a leader and what skills they miss.
- Skills and abilities

This module aims to develop the following generic skills in PhD candidates:

- Development of critical reasoning in the analysis and synthesis of information.
- Development of creativity to find new ideas and propose solutions.
- Ability to work in a team.
- Leadership capacity.
- Ability to work autonomously.
- Ability to present work, ideas and opinions in public.
- Ability to present written reports.
- Judgement and approach
 - Business orientation

3.2.16.3. Content

Concepts

– Leadership: Leadership is the ability to influence other people, with or without authority. Leadership is the art of motivating a group of people to act toward achieving a common goal. In a business setting, this can mean directing workers and colleagues with a strategy to meet the company's needs. The terms leadership and management tend to be used interchangeably, but they are not the same. Leadership requires traits that extend beyond management duties.





- Leader: A leader is someone who can see how things can be improved and who rallies people to move toward that better vision. Leaders can work toward making their vision a reality while putting people first. Just being able to motivate people is not enough leaders need to be empathetic and connect with people to be successful. Both leaders and managers must manage the resources at their disposal, but true leadership requires more.
- Manager: The person who is responsible for managing an organisation. the manager may or may not be a leader and may or may not inspire others. Besides, managers emphasise rationality and control.
- Adaptability: An ability or willingness to change to suit different conditions. It is the ability to adjust your approach or actions in response to changes in your external environment. It is a valuable skill for individuals and for businesses. You can not anticipate changes or problems that your research and intuition do not reveal. However, you can establish a standard system or method to respond to change within your business.
- Assertive communication: Assertiveness means expressing your point of view clearly and direct, while still respecting others. Communicating in an assertive manner can be helpful to minimise conflict, control anger, have your needs better met and have more positive relationships.

Topics

- Concept of leadership
 - o Difference between leader and boss
 - o Characteristics of leadership
 - o Key skills for being a good leader
- Leadership and entrepreneurship
 - Adaptability and leadership
 - o Assertive communication

3.2.16.4. Suggested activities

- Topics for debate
 - In your opinion, what are the main characteristics of a good leader?
 - Which kind of leader you are?
 - Do you think that to be a leader it is necessary to have authority?
 - How have you inspired or influenced others throughout your life?
 - What are the most relevant leaders you have known?
- Practical activities
 - Analyse the profile of several successful leaders.
 - Identify your own profile by doing a self-assessment test such as: Belbin test https://www.belbin.com/resources/free-belbin-test-looking-for-a-free-team-roles-test/
 - "Six thinking hats" activity.
 - Role-playing and discussion.





3.2.16.5. Duration

The course should last 6 hours.

3.2.16.6. Information sources and complementary resources

- Bibliographic references
 - Bennis, W. G. (1999). Managing people is like herding cats: Warren Bennis on leadership.
 Executive Excellence Pub
 - Goleman, D. (2017). Leadership that gets results (Harvard business review classics). Harvard Business Press.
 - Jackson, B., & Parry, K. (2018). A very short, fairly interesting and reasonably cheap book about studying leadership. Sage.
 - Tsu, S. (2016). The art of war. Cosimo Classics.
- Web references
 - https://simonsinek.com/discover/why-good-leaders-make-you-feel-safe/
 - https://www.skillsyouneed.com/lead/leadership-styles.html
- Multimedia contents
 - https://www.youtube.com/watch?v=o015 GXG2WM
 - https://www.youtube.com/watch?v=urntcMUJR9M
- https://www.ted.com/talks/simon_sinek_how_great_leaders_inspire_action?language=en



3.2.17. Communication

3.2.17.1. Description

One of the most interesting, and sometimes impressive, aspects of entrepreneurship is the continuous interaction with people. Managing people is as much an instinctive process as a set of principles and tactics. If you manage people or aspire to manage people or work with a team, you need to apply your interpersonal skills to get the desired results. As an entrepreneur, only your people skills will help you convince your team that the vision you have for your business can become reality.

How well we understand these relationships and how others perceive us can result in winning a major customer, a good financial negotiation, resolving employee conflicts, building effective teams or making good impressions on the media and more. The secret to influencing others, winning friends and building long-term business relationships - essential to business sustainability - is to understand that we must first earn the trust and respect of those we deal with.

The PhD candidates learn how to communicate clearly and persuasively, in a way that inspires action. They learn how to tailor communications to different audiences, apply the principles of logical reasoning in structuring communications, connect authentically with their audience through their unique leadership style, and create compelling, high- impact presentations and communications. Classes are often spent on hands-on exercises and offer ample opportunity for discussion and feedback.

3.2.17.2. Intended learning outcomes

Knowledge and understanding

The PhD candidates will understand:

- The importance of soft skills in general and communication in particular in entrepreneurship success.
- Human communication and language processes as they occur across various contexts, e.g. interpersonal, intrapersonal, small group, organisational, media, gender, family, intercultural communication, technologically mediated communication, etc. from multiple perspectives.
- Key theoretical frameworks, constructs, and concepts for the study of communication and language
- Skills and abilities

The PhD candidates will be able to:

- Apply at least research methods associated with the study of human communication to the analysis and evaluation of human communication.
- Find, use, and evaluate primary academic writing associated with the communication discipline.
- Judgement and approach

After completion of the course, the student will be able to:

 Develop knowledge, skills, and judgment around human communication that facilitate their ability to work collaboratively with others. Such skills could include communication



competencies such as managing conflict, understanding small group processes, active listening, appropriate self-disclosure, etc.

Communicate effectively orally and in writing.

3.2.17.3. Content

- Concepts
 - Active listening
 - Written communication: external and internal mails and e-mails, statements, papers, etc.
 - Oral communication: in-public expression, meetings with stakeholders, internal meetings, face-to-face meetings, etc.
 - Body language
 - Feeling communication
- Topics
 - Understanding your audience
 - Understanding your communication style (Myers- Briggs self-assessment)
 - Synthesising qualitative data
 - Synthesising quantitative data
 - Applying deductive reasoning
 - Applying inductive reasoning
 - Writing in PowerPoint
 - Developing your leadership style
 - Writing style for official letters, memos, e-mails, and social media
 - Using body language to communicate effectively and persuasively
 - Communicating to build high-performing teams
 - Developing a TED (technology-entertainment-design) talk

3.2.17.4. Type of instruction and activities

This course requires PhD candidates to work continually throughout the semester and entails a fair amount of writing, class discussion, and presentation. The class concludes with the Final Project, which will require researching, structuring, writing, and delivering a presentation.

Class sessions will be highly interactive, since best practices in communications are most effectively learned through practice rather than lecture. Therefore, we will:

- Spend most of the time in each session working through hands-on, relevant exercises
- Practice writing and presenting
- Draw on "real life" examples from a variety of industries and situations, including your own work or academic experience
- Use brief case studies from the wine industry as the basis for some in-class exercises and projects

3.2.17.5. Duration





The course should last 6 hours.

3.2.17.6. Information sources and complementary resources

- Bibliographic references:
 - Barbara Minto. (2010). The Minto Pyramid Principle: Logic in Writing, Thinking, and Problem-Solving, Pearson Financial Times
 - Belle Linda Halpem, Kathy Lubar. (2004). Leadership Presence: Dramatic Techniques to Reach Out, Motivate, and Inspire.
 - Jagdeep S. Chhokar, Felix C.Brodbeck, Robert J. House. (2007), Culture and Leadership across the World, Psychology Press.
- Web references:
 - https://www.entrepreneur.com/article/252555
 - https://www.forbes.com/sites/ryanrobinson/2019/12/13/communication-skills-entrepreneurs/?sh=1469aae878b5
- Multimedia contents:
 - https://www.youtube.com/watch?v=sEzTXTRo9L4
 - https://www.youtube.com/watch?v=HAnw168huqA
 - https://www.youtube.com/watch?v=h1fCJM1LMaY



3.2.18. Teamwork

3.2.18.1. Description

Teamwork, whether in the workplace, university or family, is of great importance to obtain better and more effective results in carrying out a project.

The purpose of teamwork is to work towards a common goal, bringing together the capacities, skills and ideas of the team members. It consists of generating synergies where everyone contributes from their experience, enriching the project. In the case of intergenerational entrepreneurship, senior and young entrepreneurs have different skills and abilities to contribute to the intergenerational team.

Teamwork stimulates creativity, empowerment, encourages multidisciplinary work, increases efficiency, and promotes a sense of belonging and creativity.

Teamwork require that the group dynamics work. To achieve this, it is essential to develop personal communication skills such as listening, asking, and debating. Also, to learn different work methods, there should be ways to divide tasks and flexibility in the team.

3.2.18.2. Intended learning outcomes

- Knowledge and understanding
 - Understand the difference between team and group
 - Differentiate the concept of teamwork from team of work
 - Identify the elements of teamwork
 - Understand the phases of teamwork
 - Get to know the different types of teams such as High-Performance Teams and Hot Groups, among others
 - Learn about virtual teams.
 - Understand the keys for the proper management of work teams
 - Identify the different types of teams required for teleworking.
 - Knowing how to differentiate the stages of a team and knowing how to position yourself.
- Skills and abilities
 - Teamwork skills
 - Decision-making
 - Critical thinking
 - Creativity
 - Multidisciplinary ability
 - Negotiation
- Judgement and approach
 - Flexibility and adaptation to the environment
 - Business orientation
 - Development of critical thinking

3.2.18.3. Content





Concepts

- Team: The set of people working together as a group in order to achieve something. Some teams have a limited life: for example, a design team developing a new product, or a continuous process improvement team organised to solve a particular problem. Others are ongoing, such as a department team that meets regularly to review goals, activities, and performance.
- Group: Several individuals working together or having some unifying relationship. A number
 of people or things that are put together or considered as a unit.
- Teamwork: Teamwork involves a set of tasks and activities performed by individuals who collaborate with each other to achieve a common objective. That objective can be creating a product, delivering a service, writing a report, or making a decision. Teamwork differs from individual work in that it involves shared responsibility for a final outcome.
- Hot Groups: A hot group is just what the name implies: a lively, high-achieving, dedicated group, usually small, whose members are turned on to an exciting and challenging task. Hot groups, while they last, completely captivate their members, occupying their hearts and minds to the exclusion of almost everything else.
- Virtual teams: A virtual team, also known as a geographically dispersed team or a remote team, is a group of people who interact through electronic communications. Members of a virtual team are usually located in different geographical regions. Since communication is not in-person, trust and good communication are crucial to the success of a virtual team.

Topics

The topics covered in this module are:

- Definition of teamwork
- Elements for teamwork
 - o Common goal
 - o Interaction of members
 - o Complementary skills
 - o Interdependence
 - o Common working methods for all
 - Synergy
- Phases of teamwork
- Types of teamwork
 - o Virtual teams
 - o Collaborative intelligence
 - o Hot groups
 - o High Performance teams

3.2.18.4. Suggested activities

These suggested activities can be conducted both with the whole group or with teams, so they achieve the learning objectives proposed in the learning unit.





Topics for debate

- How members in a group should interact? Which conditions do you think are fundamental?
- How can your skills be complemented with your partner skills? How can you improve your skills?
- What do you think is an important factor for generating interdependence to build strong teams?
- What methodologies do you know for a good teamwork?

Practical activities

The person in charge of the activity should pose several hypothetical problems that can appear during the creation of a business. Then, the group should make teams as diverse as possible, and a problem will be assigned to each group. Each team should try to figure out how to solve the problem and figure out which limitations and difficulties arose during the teamwork, both individually and as a team. The important part of this activity is that each participant identifies the areas they should work personally on so that they become better team members in the future.

3.2.18.5. Duration

The course should last 6 hours.

3.2.18.6. Information sources and complementary resources

• Bibliographic references

- Katzenbach, J. R., & Smith, D. K. (2001). The discipline of teams: A mindbook-workbook for delivering small group performance. John Wiley & Sons.
- Katzenbach, J. R., & Smith, D. K. (2015). The wisdom of teams: Creating the highperformance organisation. Harvard Business Review Press.
- Wing, Linda. (2005). Leadership in high-performance teams: A model for superior team performance. Team Performance Management. 11. 4-11. 10.1108/13527590510584285.
- Lipman-Blumen, J., & Leavitt, H. J. (1999). Hot groups: Seeding them, feeding them, and using them to ignite your organisation. Oxford University Press.
- Ferrazzi, K. (2014). Getting virtual teams right. Harvard Business Review, 92(12), 120-123.
- Blackburn, R., Furst, S., & Rosen, B. (2003). Building a winning virtual team. Virtual teams that work: Creating conditions for virtual team effectiveness, 95-120.
- Coutu, D. L. (1998). Trust in virtual teams. Harvard Business Review, 76(3), 20-22.

Web references

- https://hbr.org/2016/06/the-secrets-of-great-teamwork
- https://medium.com/@InVisionApp/next-level-collaboration-the-future-of-content-and-design-9a7c8287ab10#.n740vr3w3
- https://www.ted.com/talks/howard_rheingold_on_collaboration/transcript?language=en





3.2.19. Public relations

3.2.19.1. Description

For any product, service or brand, achieving maximum implies effective public relations (PR) based on dynamic "earn" communication, effective relationship building, market and industry knowledge. Exciting, the world of public relations constantly changes, can be fast moving, dynamic, proactive, sometimes stressful and potentially glamorous. The emphasis in this course will be on the development and consolidation of PhD candidates PR skills in that context. The module will immerse PhD candidates in the evolving communications landscape and enable them to create compelling public relations and influencing plans.

3.2.19.2. Intended learning outcomes

The course is meant to:

- Provide PhD candidates with understanding of public relations in the context of marketing mix
- Build a background on public relations including latest developments in digital public relation communication
- Apply the theoretical perspectives to real-world public relation challenges
- Give professional perspective with examples arising from the industry
- Prepare PhD candidates to drive/manage public relation duties in an organisation
- Understand why and how public relations' scope also includes influencers.
- Knowledge and understanding
 - Understood the key concepts and main trends in public relations.
 - Comprehended the process/mechanisms of public relations
 - Appreciated the role of public relations in marketing
 - Known the specifics of public relations
 - Familiarised with the world of public relations
- Skills and abilities
 - Evaluate the range of activities in public relations.
 - Measure PR performance
 - Develop and evaluate a comprehensive public relation strategy including influencers.
- Judgement and approach
 - Address the different aspects in value creation on public relations
 - Design, develop, implement, monitor and optimise their public relation strategies and plans.

3.2.19.3. Contents

- The main concepts to be acquired include:
 - Publics and their sub-groups
 - Press agentry
 - Advertising





- Propaganda
- Publicity
- Internet
- Email
- Courier
- Event
- The main topics covered are:
 - Defining Marketing Mix
 - Defining PR
 - PR, product and pricing
 - PR communication and related objectives
 - PR organisation
 - PR agencies
 - PR value chain
 - Press platform
 - Press release
 - PR events

3.2.19.4. Type of instruction and activities

The course can combine (from less to more informal and less to more trainees' participation):

- Lectures
- Seminars
- Workshops

3.2.19.5. Duration

The course should last 6 hours.

3.2.19.6. Information sources and complementary resources

- Bibliographic references:
 - Black, S., (2013), Practice of Public Relations, New-York
 - Gunning, E., (2007), Public Relations, 2nd ed., Gill Books
 - Johnston, J. and Sheehan, M., (2014), Public Relations, 5th ed., Allen & Unwin
- Web references:
 - https://muckrack.com/blog/2020/06/09/public-relations-management
 - https://www.cram.com/flashcards/public-relations-key-concepts-3063289
- Multimedia contents:
 - https://www.youtube.com/watch?v=7ptiYPcleM8
 - https://www.youtube.com/watch?v=iVa0DPEjbIw