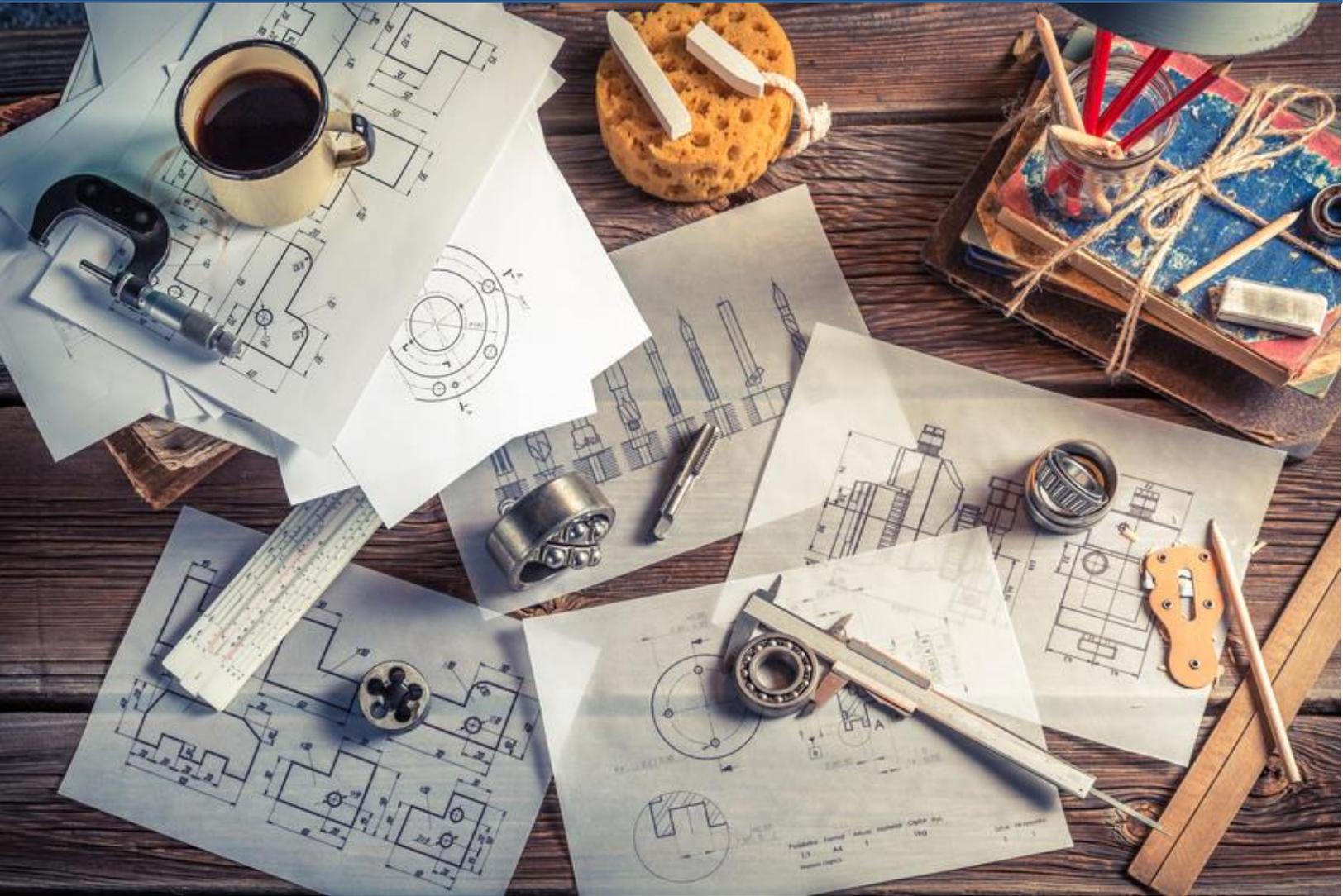


Teaching Toolkit for Entrepreneurship Education

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PREFACE

The present paper introduces the Entrepreneurship Teaching Toolkit which has been developed within the framework of the Embedding Entrepreneurship Education (EEE) Erasmus+ Project funded by the European Union (<https://eee-project.eu/>).

The aim of this entrepreneurship teaching program is the development, testing and comparison of innovative teaching methodologies in order to widen the knowledge and improve the skills of graduates and academic staff. The toolkit seeks to promote the involvement of the business sector in educational programs at HEIs (higher education institutions) and wants to support the creation of further student entrepreneurship initiatives in Europe.

The Entrepreneurship Teaching Toolkit is designed and implemented as innovative teaching material, embracing the target groups of lecturers, teachers, instructors, scholars etc. who may use and integrate the Entrepreneurship Teaching Toolkit in their educational courses and programs. A second group which is targeted indirectly are students and individuals interested in the topic of entrepreneurship, including also e.g. start-ups or inventors etc. who may be educated and trained with the help of the Entrepreneurship Teaching Toolkit.

Furthermore, the Entrepreneurship Teaching Toolkit has been designed in such a form to serve individuals coming from very different fields, independently of their already existing skills or previous knowledge base in management, business or entrepreneurship. Individuals having different backgrounds are welcome to make use of the Entrepreneurship Teaching Toolkit, and are invited to be trained in order to acquire solid entrepreneurial competences and/or to further improve them.

A modular approach has been selected for the Entrepreneurship Teaching Toolkit as it does not only support the development of new academic courses, but gives the opportunity to extend existing lectures, courses, etc., by adding and connecting them with specific, single and individually-chosen modules presented in the toolkit.

The toolkit consists of 23 single modules (hereafter also referred as tools) which can be combined in flexible ways in order to create academic courses (combination of a bundle of modules presented in the toolkit), but also to extend existing courses (using only one or some of the single modules presented in the toolkit).

The structure of the toolkit has been inspired by the EntreComp Framework, initiated and developed by the EU and the European Commission. The EntreComp Framework sees Entrepreneurship as a key competence for lifelong learning and draws out different key competences in entrepreneurship. The modules/tools in the toolkit have been developed accordingly, and assigned to the entrepreneurial competences outlined in the EntreComp Framework.

All of the presented modules focus on entrepreneurship education and introduce different aspects of theoretical, but especially also practical entrepreneurial knowledge. By applying a problem-based approach and fostering university-business collaboration, the involvement of the business sector is promoted. Accordingly, the Entrepreneurship Teaching Toolkit is transferred into interactive learning materials that pursue the successful implementation of student-business projects as a substantial learning outcome.

Moreover, the toolkit includes course material that specifically addresses and highlights the topic of social entrepreneurship with the aim to widen and deepen the knowledge in social entrepreneurship and to foster individuals engaged in entrepreneurial activities following a social purpose.

For this purpose, also three different course options are proposed on how to combine modules in order to establish:

- A basic entrepreneurship course (especially relevant for students with other backgrounds than business or management to get a solid overview and learn basics)
- An advanced entrepreneurship course (relevant e.g. for innovative thinkers or founders in the early stage and others to improve, enhance and deepen entrepreneurial skills and knowledge)
- A social entrepreneurship course (relevant for individuals interested in the social purpose of entrepreneurial activities)

The course materials will be made openly available, enabling external lecturers to implement the courses and tools in their own classrooms. The provided material allows customised creation of student-business and social entrepreneurship courses as open educational resource.

The reproduction, distribution and utilization by third parties for educational, teaching and training purposes of open educational resources developed by the EEE project, or part of them in any of the above ways, is subject to Creative Commons License (Attribution-NonCommercial-ShareAlike 4.0 international).

Finally, we would like to take this opportunity to thank our project partners of the EEE project consortium, Univations (Germany), University of Szeged (Hungary), Canice Consulting (Northern Ireland) and UIIN (Netherlands), as well as our associate partner the La Trobe University in Australia for their support and feedback which has been significant for the development of the Entrepreneurship Teaching Toolkit and was substantial for its finalization.



1. TEACHING TOOLKIT STRUCTURE OVERVIEW

As innovative learning material the Entrepreneurship Teaching Toolkit follows a **modular structure**. The modular structure of the toolkit presents a flexible and forthcoming way to introduce entrepreneurship education in academic institutions throughout different faculties and departments. The modular approach of the entrepreneurship teaching toolkit offers a variety of possibilities to design curriculum and to improve entrepreneurial thinking through the combination of different modules and their implementation in many different, individual and eligible ways, allowing also for increased creativity in designing and transmitting knowledge, especially relevant for individuals (also teachers) with a non-business/management background.

As innovative learning material the Entrepreneurship Teaching Toolkit also focuses on practice. The **practical orientation** of the toolkit is realized through a problem-based learning approach, including learning by doing, real-life examples, case studies, role-plays, simulations and interaction. To foster university-business collaboration, especially the possibility to involve external actors, as regional entrepreneurs, start-ups and experts in the ambit of entrepreneurship, has been critical when developing the contents for the Teaching Toolkit. Entrepreneurship skills can be fostered through

interactions with real entrepreneurs, making their involvement in education crucial. Involving regional stakeholders in education can establish fruitful links between academia and the business world, between practice and theory, and between individuals with an innovative idea and yet successful entrepreneurs. Thus, if the business sector and the academic sector cooperate, forming e.g. a regional alliance for entrepreneurship ([see IO2 of the Triple E project for more information on establishing a regional alliance](#)) to bundle their forces, entrepreneurship education will become even more effective and sustainable. Accordingly, every module designed for the toolkit includes suggestions how to efficiently involve external actors to enrich the entrepreneurship education experience.

The structure of the toolkit has been driven by the analysis of **entrepreneurial competences and the EntreComp Framework**, developed by the European Commission (Bacigalupo, Kampylis, Punie, & Van den Brande, 2016). EntreComp is a comprehensive, flexible and multi-purpose reference framework that sees and explains entrepreneurship as a key competence for lifelong learning. EnterComp establishes a shared understanding of the knowledge, skills and attitudes that describe what is meant by being entrepreneurial. Accordingly, entrepreneurship is defined as the competence to act upon opportunities and ideas to create value for others, including individual and collective capacity (Bacigalupo et al., 2018).

The graphical overview of the EntreComp, the EntreComp Wheel (see figure on p. 3) outlines different yet interconnected competences in the ambit of Entrepreneurship and classifies 3 main entrepreneurship competence areas:

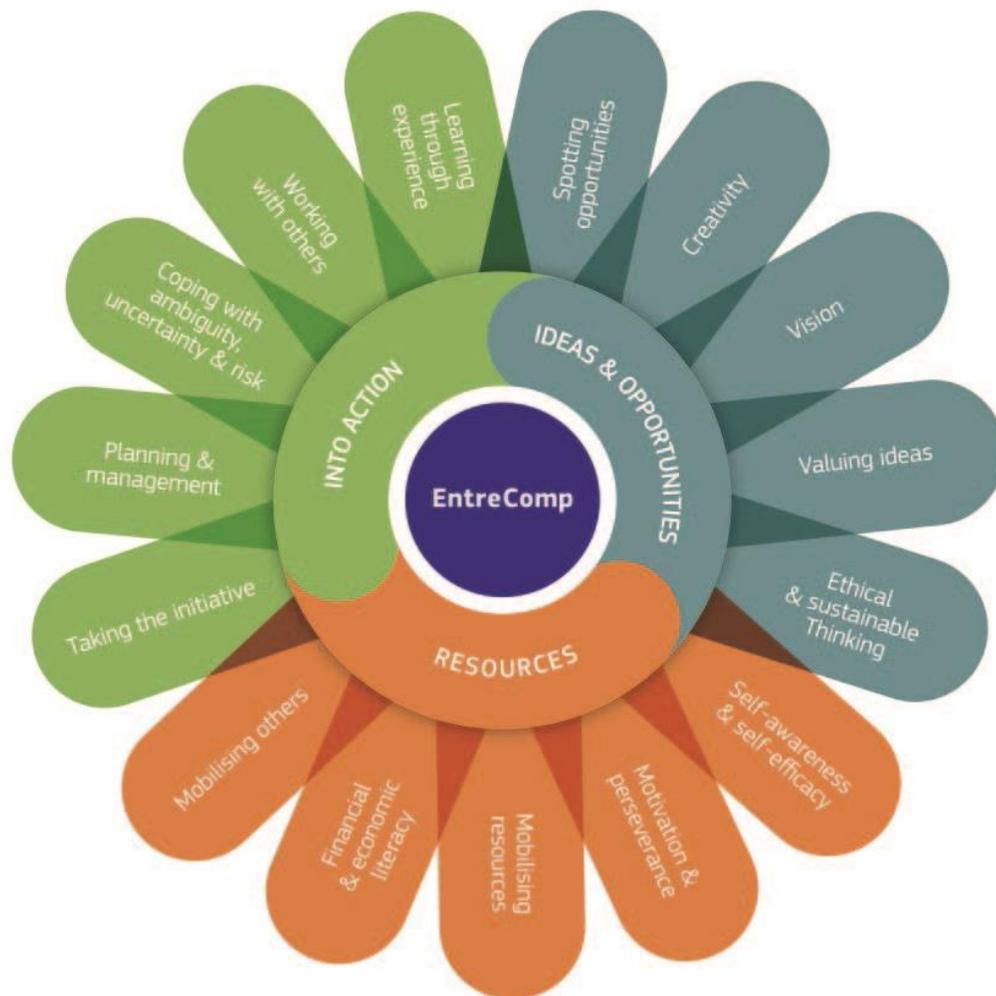
- Ideas & Opportunities
- Resources
- Into Action

Each area contains 5 sub-competences. 'Ideas & Opportunities' refer to creativity, vision, as well as to sustainable thinking. 'Resources' include aspects such as motivation, mobilizing resources, financial and economic literacy. Finally, the competence area 'Into Action' means planning and managing, working with others, and coping with uncertainty. All three categories together define entrepreneurship and describe it as an ability to turn ideas and opportunities into action that generate value.

Accordingly, the teaching toolkit has been structured in three large parts which derive from the analysis of entrepreneurship competences in the EntreComp Framework and certain modules have been developed to foster the above mentioned entrepreneurship key competences. The development of specific modules for each competence area was driven by its characteristic aspects and the 5 sub-competences, and followed a systematic process of idea generation, idea sharing, developing and testing prototypes. Hence, the process has been supported by an intensive feedback loop of project partners and associate partners (La Trobe University, Australia), which fostered a joint step-by-step improvement of the toolkit.

As competences are all interrelated, some modules in the teaching toolkit have been assigned to more than one competence area as overlaps can be observed and a strict separation would not be possible, neither reasonable in this context.

The Entrepreneurship Competence Wheel (Bacigalupo et al., 2018, p. 14).



The table below provides an overview of the modules in the teaching toolkit and draws out which specific entrepreneurial competences in the EntreComp Framework are fostered in each respective module.

Entrepreneurship Teaching Toolkit & Competences

MODULES	COMPETENCES														
	Ideas & Opportunities					Resources					Into Action				
	<i>Spotting opportunities</i>	<i>Creativity</i>	<i>Vision</i>	<i>Valuing Ideas</i>	<i>Ethical & Sustainable Thinking</i>	<i>Self-Awareness & Self-Efficacy</i>	<i>Motivation & Perseverance</i>	<i>Mobilizing Resources</i>	<i>Financial & Economic Literacy</i>	<i>Mobilizing Others</i>	<i>Taking the Initiative</i>	<i>Planning & Management</i>	<i>Coping With Uncertainty, Ambiguity & Risk</i>	<i>Working With Others</i>	<i>Learning Through Experience</i>
Idea Competition	0	0	0	0	0	0	0				0	0		0	0
Preparing the Class to Discuss				0	0				0					0	
Creativity & Inspiration (i)	0	0	0	0	0								0		0
Creativity & Inspiration (ii)	0	0	0	0	0								0		0
Opportunities	0	0	0						0				0		
Social Entrepreneurship			0		0			0		0				0	
Business Model Canvas & Social Entrepreneurship					0	0		0	0	0	0	0	0	0	0
National System of Entrepreneurship								0	0	0				0	
Reading About Entrepreneurship				0	0	0			0						
Character Traits & Motivation						0	0				0				0
Trends and Dilemmas	0	0	0	0	0		0						0		
Resource Based View of the Firm								0	0	0					0
Organizational Ecology								0	0	0			0		0
Business Model Canvas						0		0	0	0	0	0	0	0	0
Patterns of Business Models								0	0			0	0	0	0
Crowdfunding						0	0	0	0	0	0	0	0	0	0
Role Play - Failure & Grief						0	0				0		0	0	0
Decisions to Make								0	0	0	0	0			0
Strategies and Models								0	0			0	0	0	0
Final Project - Business Plan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marshmallow Challenge						0		0	0	0	0	0	0	0	0
Paper Plane Competition						0		0	0	0	0	0	0	0	0
Collaboration Game					0	0			0	0	0	0	0		0

The goal of the Triple E Project is to promote entrepreneurial activities also among individuals not familiar with management and business, thus it is especially important to design courses that can be introduced throughout different and several faculties in a university, ranging from social sciences, and liberal arts to natural sciences. Individuals coming from different backgrounds, specialized in different fields, should have the possibility to learn about entrepreneurship and to be fostered and supported in realizing their ideas and building up their own businesses.

In line with this goal, and as captured in the EntreComp, Entrepreneurship in the Teaching Toolkit is defined as a competence that applies to all spheres of life and fosters the personal and social

development to enter the job market, as well as to start a business of cultural, societal or commercial value (Bacigalupo et al., 2016).

The Entrepreneurship Teaching Toolkit combines both objectives, and is designed as one instrument to comply with the outlined demands by supporting the creation of further student entrepreneurship initiative in Europe.

References

- Bacigalupo, M., Kampylis, P., Punie, Y., & Van den Brande, G. (2016). *EntreComp: The entrepreneurship competence framework*. Publication Office of the European Union.
- Bacigalupo, M., O'Keeffe, W., McCallum, E., McMullan, L., Weicht, R., & Price, A. (2018). *EntreComp into action*. Luxembourg.



2. MODULE COMBINATION OPTIONS – COURSE SUGGESTIONS

In the following section, we will introduce three different possibilities to combine the developed modules (tools) in the teaching toolkit in an efficient manner in order to support entrepreneurial thinking and activity within different stages and levels of expertise. Respectively, modules are bundled into specific entrepreneurship courses. The presented course options should be seen as suggestions and are recommendations on how to implement entrepreneurship education, whereas many other combinations are possible and reasonable, as well as the integration of the presented modules into already existing programs and lectures. Every module introduced will be outlined in detail in the subsequent section.

The following three courses have been developed:

- **Course I:** Fostering Ideas & Recognizing Opportunities
- **Course II:** Improving Entrepreneurial Skills
- **Course III:** Encouraging Social Entrepreneurship

COURSE I: Fostering Ideas & Recognizing Opportunities

This course targets first of all newcomers i.e. individuals experimenting with entrepreneurial activities for the first time. It has the aim to foster entrepreneurial ideas coming from different fields and supports also individuals who have not yet made experiences with entrepreneurship or management before, in sharing, spreading and eventually also commercializing their ideas.

The delivery of the course through an 'Idea Competition' could have many advantages, as first of all a university-wide outreach (everybody is allowed to submit ideas from various fields). The tools 'Creativity I & II' are suggested to be included into the idea competition as preparation for the students, where they learn how to write down and present ideas using different methods as diaries or digital brainstorming tools. An interactive tool which is especially useful for beginners and fosters experimenting and exploring with innovative approaches, as well as collaboration is the 'Marshmallow Challenge'. It can serve as preparation, but also as nice distraction during the idea competition itself (e.g. before awarding ceremony). Furthermore, theoretical inputs are provided with the tools 'Opportunities' and 'Decisions to Make', making students familiar with the fundamentals of entrepreneurship. The final outcome of the course, and at the same time a base for assessment, is the tool 'Final Project – Business Plan' where students have to work out a business plan, presenting their ideas in a formal and reasonable manner.

In this course, students benefit first of all, as they can improve their creativity and learn how to spot opportunities on the market. They are supported in formulating valuing ideas and encouraged to turn and translate these ideas into visions. Hence, throughout the course especially competence area 'Ideas & Opportunities' is embraced and highlighted. A focus lies also on how to take the initiative, how to work in a team and profit thereby from the experience of peers and others as e.g. external actors involved (competence area 'Into Action'). Moreover, students' motivation is strengthened by fostering their self-efficacy and awareness (competence area 'Resources').

After this course students will be able to present their ideas on a formal basis in front of investors, costumers, organizations etc., using an elaborated and well thought out business plan. This step will bring entrepreneurial thinkers closer towards the goal of commercializing their own innovative ideas.

FOSTERING IDEAS & RECOGNIZING OPPORTUNITIES
 min. 7.5 ECTS

Outline	Tools / ECTS	Description	Involvement of External Actors
Delivery	IDEA COMPETITION max. 3 ECTS	This module helps to structure and organize the course in an attractive, flexible and inviting manner (also throughout different departments and faculties possible – university-wide competition)	<ul style="list-style-type: none"> • Jury members • Presentation about the key elements of a successful participation in an idea competition • Speaking about experiences as successful participants in an idea competition / as a jury member
	CREATIVITY & INSPIRATION (I) + (II) max. 2.25 ECTS	This module supports students in developing and presenting ideas. The overall idea is to induce a novel perspective. The ideas and inspirations developed in this module can be the basis for a business plan or for a business plan sketch.	<ul style="list-style-type: none"> • To commenting on the insights or ideas the students present
	PREPARING THE CLASS TO DISCUSS max. 0.25 ECTS	The aim of this module is to ensure that students in the class can freely discuss and share insights and ideas. This will be accomplished by having students sign a confidentiality agreement.	<ul style="list-style-type: none"> • Adapting the non-disclosure agreement to the national legal regulations • Presentation about legal issues pertaining to secrecy
Interactivity	MARSHMALLOW CHALLENGE 0.25 ECTS	Through this tool teamwork and prototyping skills are fostered. Teamwork is a relevant competence which lies at the core of all entrepreneurial activities.	<ul style="list-style-type: none"> • Role of the observer during the challenge • Discussants in the reflection section after the challenge
Content	OPPORTUNITIES 0.5 ECTS	This module provides an overview of finding opportunities for entrepreneurial activities.	<ul style="list-style-type: none"> • Inviting external actors that are knowledgeable about trends • Arranging an excursion to a company in your region and discuss how this company responds to certain trends
	DECISIONS TO MAKE 0.5 ECTS	This module teaches students how to make decisions of strategic relevance, applying two basic analyses: – industrial structure analysis (Porter's five forces) – PESTEL analysis.	<ul style="list-style-type: none"> • Including entrepreneurs who report about their decisions
Outcome/ Assessment Base	FINAL PROJECT – BUSINESS PLAN max. 3 ECTS	Target for the module is to induce students to think about their entrepreneurial idea and prepare a business plan sketch or a business plan (depending on the time available to students).	<ul style="list-style-type: none"> • Involving start-up coaches or entrepreneurs in the grading process

COURSE II: Improving Entrepreneurial Skills

This course targets student entrepreneurs and start-ups in their early stage. The course aims at improving the knowledge about entrepreneurship and supports individuals in becoming successful entrepreneurs. The course thereby especially tackles the competences motivation, mobilizing resources, financial and economic literacy in the competence area 'Resources'. But it also supports the competences planning and management, coping with uncertainty, and working with others (competence area 'Into Action').

In this regard, gaining theoretical knowledge in different business areas is emphasised (market analysis, financing, planning, strategy, innovation, entrepreneurship, etc.). Furthermore, the use of role-plays or simulations is helpful to create a lasting learning effect. In this course, we propose the 'Failure & Grief' topic to be transferred through role-plays. Of course, also other topics are suitable to be transferred in the same manner. Finally, the module 'Paper Plane Competition' fosters interpersonal skill development, and prototyping, two competences which are considered essential in entrepreneurship. The aim of the course is supporting students in the development of a 'Business Model Canvas', which serves at the same time as evaluation basis.

After the completion of this course, students will have a sound and profound knowledge in the ambit of entrepreneurship, and have acquired a bundle of crucial entrepreneurial skills and competences necessary for pursuing a successful future. Hence, students do not only recognize an important need on the market, but also know how to satisfy this need. They are able to clearly draw out their USP, and know how to commercialize their ideas and how to capture value out of it. They have a clear business model in mind and know important key data as target customer, core competences and partners, cost structure and revenue streams. Hence, students are supported in creating a whole business around their initial ideas.

IMPROVING ENTREPRENEURIAL SKILLS min. 7.5 ECTS			
Outline	Tools	Description	Involvement of External Actors
Delivery	ROLE PLAY – FAILURE & GRIEF max. 2 ECTS	This module focuses on how students "feel" and helps students manage the emotions of learning from failure through role-plays.	<ul style="list-style-type: none"> As guest speakers who experiences or experienced failure Guest speakers explaining how to manage emotions of employees and how this impacts organizational learning
Interactivity	PAPER PLANE COMPETITION max. 0.25 ECTS	The module fosters team-building and social skills and trains students in prototyping.	<ul style="list-style-type: none"> Role of the observer during the challenge Discussants in the reflection section after the challenge
Content	READING ABOUT ENTREPRENEURSHIP max. 3 ECTS	This section suggests extensive reading about entrepreneurship.	<ul style="list-style-type: none"> External actors can be included in a flipped classroom setting - students interview external actors from the entrepreneurship community.
	CHARACTER TRAITS OF ENTREPRENEURS & MOTIVATION 0.5 ECTS	This module focusses on the character traits of entrepreneurs and on their motivation.	<ul style="list-style-type: none"> Regional entrepreneurs can contribute to the course by providing their take on the questions asked e.g. as testimonials (Skype interview webinar course, flipped classroom).
	RESOURCE-BASED VIEW 0.5 ECTS	The module provides theoretical knowledge about entrepreneurship. It embraces the Resource-Based View of the firm which explains how resources can foster and create competitive advantage.	<ul style="list-style-type: none"> Giving insights on the implementation of the resource-based view in practice, share experiences with students during class discussion.
	PATTERNS OF BUSINESS MODELS max. 1 ECTS	The module gives an overview of different types of business models and on how business models can be innovated efficiently and successfully.	<ul style="list-style-type: none"> Students analysing business models of regional entrepreneurs given the 55 pattern of business models As discussants and supporters
	ORGANIZATIONAL ECOLOGY 0.5 ECTS	The module provides theoretical background about entrepreneurship. It embraces the Organizational Ecology Theory which deals with the survival, growth and mortality of organizations.	<ul style="list-style-type: none"> Business man and entrepreneurs from large companies / start-ups bring further insights as well as share practical and personal experiences with students during class discussions
	CROWDFUNDING 0.5 ECTS	Target of the module is to give students an overview on the topic of crowdfunding, and making them aware of the relatively new but yet efficient financial instrument.	<ul style="list-style-type: none"> Inviting founders of start-ups who speak about their experiences of using crowdfunding instrument
	STRATEGIES & MODELS 0.5 ECTS	Target for the module is to induce students to think about entrepreneurial strategies and business models.	<ul style="list-style-type: none"> Including entrepreneurs who report about their strategies and business models
Outcome	BUSINESS MODEL CANVAS max. 1.5 ECTS	Target for this module is to provide students with a Canvas tool to develop the business model for their entrepreneurial idea.	<ul style="list-style-type: none"> Sharing practical experiences about using Business Model Canvas Giving feedback on students' start-up ideas and their business models

COURSE III: Encouraging Social Entrepreneurship

This course deals with the topic of social entrepreneurship which is a sub-discipline within the field of entrepreneurship. This kind of entrepreneurship highlights the social value and the social purpose of entrepreneurial activities and includes different services as e.g. food and water provision, education, medical services etc. for people in need. Thus, the course especially seeks to foster the competence area 'Ideas & Opportunities'.

Target group of this course are first of all individuals with ideas that foster a social purpose, independently of their background or knowledge base. Furthermore, it is also open for individuals interested in the topic of social entrepreneurship in general, and for business students who like to deepen their understandings within the broad area of entrepreneurship in general.

The aim of this course is to:

- encourage students coming from different backgrounds to foster social purposes with entrepreneurial activities
- embed students with a more social entrepreneurial mind-set
- stimulate student engagement with their region by building up knowledge
- promote social entrepreneurship through projects with and for the region

For this purpose, first of all, students get to know the basics and are familiarized with the theoretical model of 'Social Entrepreneurship' and its definitions. In a second step, and to stimulate student engagement within the region, the modules 'National System of Entrepreneurship' and 'Trends and Dilemmas' are introduced. As delivery, again an 'Idea Competition' might be useful in order to encourage and reward explicitly ideas with a social purpose and to promote social entrepreneurship through projects with and for the region. The idea competition may be part of the course or used as delivery framework for the whole course. The module 'Collaboration Game' helps embedding students with a more social entrepreneurial mind-set. It demonstrates how helping each other and working together (with competitors) might actually lead to a better overall outcome, especially relevant in the context of social entrepreneurship activities. The final aim of the course is the development of a 'Business Model Canvas in Social Entrepreneurship' which also builds the evaluation basis for grading.

After the completion of this course students will benefit from a sound and profound knowledge in the ambit of social entrepreneurship. Students will know the difference between entrepreneurship and social entrepreneurship and related models, strategies and processes. Finally, students are also encouraged to develop their own business models which can satisfy an urgent need in society in general, or in the local region. Accordingly, especially competence area 'Ideas & Opportunities' and the respective competence ethical and sustainable thinking can be strengthened.

ENCOURAGING SOCIAL ENTREPRENEURSHIP
 min. 7.5 ECTS

Outline	Tools	Description	Involvement of External Actors
Delivery	IDEA COMPETITION max. 3 ECTS	This module helps to structure and organize the course in an attractive, flexible and inviting manner (also throughout different departments and faculties possible - university-wide competition)	<ul style="list-style-type: none"> • Jury members • Presentation about the key elements of a successful participation in an idea competition • Speaking about experiences as successful participants in an idea competition / as a jury member
Interactivity	COLLABORATION GAME max. 0.25 ECTS	The collaboration game provides students with experiences of fundamental dynamics of teamwork. Students can experience the power of mutual trust and collaboration and learn how a cooperation with competitors can lead to even better results/outcomes.	<ul style="list-style-type: none"> • Role of the observer during the challenge • Discussants in the reflection section after the challenge
Content	SOCIAL ENTREPRENEURSHIP max. 1.5 ECTS	Target of the tool is to give students an overview and a solid knowledge base on the topic "social entrepreneurship".	<ul style="list-style-type: none"> • Inviting social entrepreneurs who speak about their experiences in the field of social entrepreneurship
	NATIONAL SYSTEM OF ENTREPRENEURSHIP 0.5 ECTS	This module will introduce a systemic view on innovation and entrepreneurship and is designed to change the view of the participants from a linear to a more systemic idea of innovation and entrepreneurship.	<ul style="list-style-type: none"> • External actors can be included in a discussion about the national system of entrepreneurship
	TRENDS & DILEMMAS 0.25 ECTS	The aim of this tool is to sensitize students towards the dichotomy of trends and counter trends, and to show them the potential that lies buried in this tension.	<ul style="list-style-type: none"> • External actors could be involved to speak about their personal experiences with trends and dilemmas
Outcome	BUSINESS MODEL CANVAS & SOCIAL ENTREPRENEURSHIP max. 1.5 ECTS	This module introduces a variant of the Business Model Canvas that can be used for social entrepreneurship ideas.	<ul style="list-style-type: none"> • Inviting social entrepreneurs and have the students explore the business model of their social enterprise.



3. MODULES OF THE TEACHING TOOLKIT

In the following chapter we introduce the single modules which have been combined to form courses before, and present them in detail. The chapter is structured according to the EntreComp Framework, in the three entrepreneurial competence areas:

- Ideas & Opportunities
- Resources
- Into Action

All modules have been assigned to one or more of these three competences (see table on p. 4 - because of reasons of parsimony, every module is only introduced once hereafter) and are all structured in the same manner. We briefly outline the structure of the single modules hereafter.

Every module introduced, starts with a quick **overview**, relevant for getting a first idea about the context, and to capture its essence.

Next, we assigned all modules to the specific **entrepreneurial competences** in the EntreComp Framework. The entrepreneurial competences listed with each module describe what kinds of competences are especially fostered through the participation in the respective module.

Furthermore, **learning outcomes** are specified, drawing out certain learning goals which should have reached upon completion of the respective module.

Prerequisites for the students as special requirements or skills, as well as the **preparation of the teacher** are also outlined in detail in every module.

Time and assessment options are introduced, which should serve first of all as suggestions and orientation, so that every institution is flexible enough to adapt them to its specific context. Time refers thereby to specific ECTS credits which correspond to the European Credit Transfer System. Assessment refers to different possibilities how to evaluate student outcomes, and on occasion also specific options how to grade are presented.

Every module also contains a separate section referring to the **involvement of external actors**, which explains how external actors and actors from the surrounding region can be involved to support students to better understand the outlined contents. Vice versa practitioners have the possibility to create and improve relations with academia by exchanging views and creating an extended entrepreneurial network.

Competence I – Ideas & Opportunities

The following part introduces modules (tools) that foster first of all the entrepreneurial competence ‘Ideas & Opportunities’ as drawn out in the EntreComp Framework by Bacigalupo et al. (2016).

This area refers to the entrepreneurial competence where especially the individual traits as spotting opportunities, creativity, vision, valuing ideas, ethical and sustainable thinking are highlighted.

Individuals should be fostered to use their imagination and ability to identify opportunities, but at the same time to recognize needs and challenges on the market. In order to support entrepreneurial activities, it is important to support students in the creation of creative and purposeful ideas. Hence, students should be induced to explore

and experiment with innovative approaches and to combine knowledge and resources to achieve valuable outcomes.

Students should learn to work towards their vision of the future by imaging the future, developing visions to turn ideas into action and visualise future scenarios.

Especially important is the maximal exploitation of ideas and opportunities by recognizing the potential of an idea or opportunity, making out the most of it. Moreover, also the assessment of consequences and the impact of ideas and actions should be considered. Reflecting about sustainable long-term goals is especially useful here, as well as responsible acting (Bacigalupo et al., 2016).

References

Bacigalupo, M., Kampylis, P., Punie, Y., & Van den Brande, G. (2016). *EntreComp: The entrepreneurship competence framework. Publication Office of the European Union.*

Bacigalupo, M., O’Keeffe, W., McCallum, E., McMullan, L., Weicht, R., & Price, A. (2018). *EntreComp into action.* Luxembourg.

Idea Competition

Overview

The idea competition module consists of two parts. The aim of part one is to give an overview on how an idea competition could look like, how such competition might be structured and organized.

The purpose of part two of this idea competition module is to support students in preparing for a successful participation in an idea competition.

Entrepreneurial Competences

- Spotting Opportunities
- Creativity
- Vision
- Valuing Ideas
- Self-Awareness & Self-Efficacy
- Motivation & Perseverance
- Taking the Initiative
- Planning & Management
- Working with Others
- Learning through Experience

Learning Outcomes

Part one the module intends to give helpful input on how to organize an idea competition. Part two of this module provides the students the tools they need to successfully participate in an idea competition and to arouse the students' interest in participating in such a competition.

After the completion of this module students are aware of what is needed to participate successfully in an idea competition. Furthermore, they know how to give a good elevator pitch and are aware of the importance of a good structured business plan.

Prerequisites

No prior knowledge is required.

Preparation of the Teacher

Online

If this module is used in an online or blended learning setting you have to make sure to involve the students in a proper way. Prepare some group work where the students are asked to write a submission for an imaginary idea competition. Make sure to set up a space in your online tool where students can upload their group work. This should be accomplished by a forum or a discussion board to enable discussions between the students and between the students and the teacher.

Presence

To make your lesson more vivid, provide the students an example of an idea competition's entry form and ask them to fill it out. Alternatively, prepare a group work where the students are asked to write a submission for an imaginary idea competition. It could also be a good experience to organize a small idea competition where some of the students act as jury members and the other students (or groups of students) act as participants in an idea competition and present their idea / product / service.

Involvement of External Actors

External actors can be involved

- as jury members
- by giving a small presentation about the key elements of a successful participation in an idea competition
- by speaking about their experiences as successful participants in an idea competition or about their experiences as a jury member

Time

2-3 ECTS.

Assessment

In a first step, different student groups should develop an idea competition on their own and present it to the class. Afterwards, students should try to fill out the application forms developed by the classmates and present their work and experience to the class.

Content

Part 1: How to organize an idea competition

1. Engagement matters

Running an idea competition can be a great instrument to keep people engaged with your business, your brand, your mission etc.

A successful idea competition requires a good planning and execution (see <http://kickpoint.ca/how-to-plan-and-execute-a-successful-social-media-contest/> as well as <http://de.scribd.com/document/106786193/How-to-Organize-Busines-Idea-Competition>).

This chapter will help you to prepare and to run a successful idea competition.

2. Planning

2.1. Outline your goals

At the beginning of the process it is important to outline your goals. Ask yourself what you want to accomplish by launching the idea competition. To know what your goals are will help you to structure the process and will also help you to find out if whether or not the competition was successful.

2.2. Set up the competition

Once the goals have been outlined, it is time to set up the competition. This is the most time-consuming phase in the process, but taking enough time for this will help to get a well-structured and successful idea competition.

The following aspects should be considered:

- Who is the target group of the idea competition?

- **Determine the assessment criteria:**

An independent jury will evaluate the entrepreneurial ideas according to the following criteria:

 - degree of innovation
 - customers' benefit
 - market potential
 - USP
- Make sure that confidentiality is assured for the content of all submissions. There is no charge for entry to the competition. The prizes will be awarded at the discretion of the jury. The jury's decision is final and cannot be contested by legal action.
- When does the idea competition take place? What other dates, events, holidays etc. may have to be taken into account in order to avoid overlapping to reach as many participants as possible?
- The start and the end of the submission deadline must be defined. Is the submission deadline sufficient? It is important to schedule the option for a potential extension of the submission deadline already in the planning.
- When planning the time frame of the idea competition it is important to be aware of the time needed for reviewing the submissions (do not underestimate!). The submissions will be evaluated during the first jury session according to predefined criteria. The ten best submissions take part in the second phase and will be presented by the participants during the second jury session.
- Who is on the jury? It is worthwhile if the members of the jury cover a wide range of subjects and topics and if they are practitioners. Make sure that there are enough jury members:
 - jury members for the first jury session
 - jury members for the second jury session
- Which premises are required for the first and second jury session? (room size, seating, technical equipment, catering etc.)
- Free presentation training for the ten best finalists has to be organized. The presentation training must take place some days before the second jury session.
- Creation of the participation forms. Team submissions will also be accepted.
- **The idea competition is divided into two phases.**
 - **Phase I: submission and evaluation of the ideas**
 - **Phase II: presentation of the ten best ideas in front of a jury.** This is followed by the official announcement of the best ideas during the prize-giving ceremony.
- **First jury session:**

- Designation of the jury members.
- When and where does the first jury meet?
 - date and time (from – to)
 - location
 - room (room size, technical equipment, beverages etc.)
- Ensure that the jury members receive all submissions in time and that they are informed about the evaluation criteria and procedure.
- After the end of the first jury session, the results will be communicated to the organizational team.
- **Second jury session:**
 - The organizational team informs the participants of the second round. The participants will be informed about the presentation of their submission at the second jury session. In addition, the participants of the second round are asked to submit their PowerPoint presentation to the organizational team within the day before the second jury session.
 - Time management: Each final round participant will be given ten minutes for the presentation and five minutes for the jury's questions. After the first five presentations, a ten minutes break will take place.
- **Presentation of the best submissions, second jury session and prize-giving ceremony:**
 - Designation of the jury members
 - Small welcome gift for the jury members
 - Preparing the evaluation documents for the jury members:
 - Ensure that the jury members receive the submissions of the second round in time and that all jury members are informed in advance about the evaluation criteria and the evaluation process.
 - overview on the time schedule (i.e. when which submission will be presented)
 - arranging the printed PowerPoint presentations according to the time schedule
 - evaluation sheet for each presentation
 - When and where will the presentation of the submissions and the second jury session take place?
 - date and time (from – to)
 - location
 - room (room size, technical equipment, beverages, catering etc.)
 - Sponsors' invitation to the prize-giving ceremony
 - Who leads through the prize-giving ceremony?
 - Who is responsible for the welcome speech?
 - Who is holding a speech?
 - Who will award the prize?

a. Determine the prize

To give an incentive for the participants the organizer of the idea competition has to think about the prizes for the winner or the winners. In the best case the prizes are related to the organizer's company. This is a good opportunity to show what the organizer's business or company has to offer, to attract people who are genuinely interested in what the business or company of the organizer is doing and to make the brand visible to a wider market.

- Which sponsors can be attracted? Maybe they can be attracted from the organizer's network. Are the sponsors suitable for the idea competition?
- Type of sponsorship:
 - financial sponsors (cash sponsors)
 - in-kind sponsors (companies that offer products or services for free in exchange for a similar level of sponsorship)
 - media sponsors
 - ...

b. Prize ideas

It is important to make sure that the prize is worth the effort it takes to win. The organizer of the idea competition has to think about prizes that are attractive, and which represent an added value for the participants. Here are some examples for prizes:

- use own products
- award money
- provision of free consultation, free trainings etc.
- provision of free participation in selected events, conferences, workshops, summer schools etc.
- voucher
- a unique experience that cannot be purchased
- ...

c. Competition length

The length of the idea competition is a very important aspect when planning the competition. The organizer has to be sure that the competition is not running for too short of time. However, the organizer has to ensure that participants will not lose their interest by running the contest too long.

The length of the competition should correspond to the requirements and to the scope of the idea competition.

d. Clarify the rules

It is very important to make the idea competition very clear and easy to understand. The organizer has to make sure that the competition is well structured, including dates for entry, and all steps the participants have to take. Furthermore, it has to be clear how the winner or the winners will be chosen and contacted. It is important to ensure that confidentiality is guaranteed for the content of all submissions. The organizer should provide information about if there is or if there is not a charge for entry to the competition. In addition, it is important to emphasize that the prizes will be awarded at the discretion of the jury. The jury's decision is final and cannot be contested by legal action.

e. Create the layout

It is a good advice to add an eye-catching graphic to the idea competition. Use graphics and colours that will be recognizable and which are related to the organizer's company or institution. The creation of the layout includes

- the design and number of posters
- the design and number of flyers
- the design and number of checks for the best five participants
- the design of the participation certificates for all participants

3. Promotion

It is important to make sure that the interested people will know all about the relevant details of the idea competition. A good advice is to make use of all your promotion channels such as your website, newsletter, social media (Facebook, LinkedIn, Twitter etc.) and to ask your followers to share the idea competition with their social network. Furthermore, create flyers and posters to draw attention to the competition.

One of the most important promotion activities is to send an email to the idea competition's target group. It is necessary to consider beforehand when the mailing should be sent out. It is important to schedule a reminder in case the deadline will be extended. If the deadline will be extended, a corresponding mailing must be sent.

4. Monitor the idea competition

Once the idea competition has started, check regularly if everything is going according to your plan. Make sure that you answer any posts, messages and questions interested people may have about the competition.

5. Presentations, jury session and prize-giving ceremony

Each final round participant will be given ten minutes for the presentation and five minutes for the jury's questions. After the first five presentations, a ten minutes break will take place.

After the end of all presentations, the jury will discuss the presentations taking into account the evaluation criteria and determine the winner or the winners. As soon as the result is fixed, the organizational team will be informed and writes the name of the respective prize winner or the winners on the checks for the prize-giving ceremony.

During the prize-giving ceremony the winner or the winners will be announced and awarded.

After the prize-giving ceremony a reception will take place.

The days after the prize-giving ceremony all participants receive a certificate of participation. The prize money will be transferred to the award winner or the winners. The winner or the winners will be publicized on the organizer's website, on the social media channels, in the newsletter, in a press release etc.

6. Review

After the idea competition has ended it is time to reflect on the idea competition carried out.

- Was it worth it?
- Did you as organizer of the idea competition accomplish the goals you outlined before launching the idea competition?
- What worked and what do you want to do different next time?
- How can you make your next idea competition even better?

Part 2: How to participate successfully in an idea competition

In this chapter we want to give you some helpful input on how to participate successfully in an idea competition.

1. Selection of the idea competition

The first step is to select the appropriate idea competition with focus on themes and audiences aligned with your idea / product / service etc.

Read the application form very carefully. All idea competitions are different in their purpose, requirements, and target groups. Therefore, it is important that the submission is in line with the goal of the idea competition. It is helpful to have a deeper look on the details of the application form, to look at the submission guidelines, and to stick to them strictly. Furthermore, it is important to be clear about the assessment criteria, the requirements, as well as about the submission deadline. A helpful summary of all these aspects can be found at <https://studentcompetitions.com/posts/5-tips-to-win-business-plan-competitions--3>.

2. Filling in the application form

It is essential that you as applicant answer all the questions and that you are aware of what the tendering company or institution is asking for.

An application form might enclose the following questions related to the entrepreneurial idea / product / service and its potential in detail:

- **The entrepreneurial idea / product / service (max. 400 words):**
 - How would you describe your idea / product / service?
 - What was the point of departure / background to the idea / product / service?
 - What is the current status of the proposal (initial idea, design phase, prototype etc.)?
 - What is the driving force behind the idea / product / service for you (and your team)?
 - How do you intend to implement the idea / product / service?
- **Benefits to customers (max. 200 words):**
 - What idea / product / service do you intend to offer?
 - Who are the potential customers for your idea / product / service?

- Why will customers be interested in your idea / product / service?
- What fundamental problem or problems will your idea / product / service solve for customers?
- What are your customers' needs in the context of your idea / product / service?
- **Market potential (max. 200 words):**
 - Can you describe the market / segment in which your idea / product / service will offer benefits?
 - How big is the market / segment?
 - What are today's trends on this market / segment?
 - Is the market / segment growing or shrinking?
- **Competition (max. 200 words):**
 - Who are the players on this market / segment?
 - What competitor products or alternatives are there on the market / segment?
 - What are the key arguments employed by other vendors?
- **Development potential: USP (max. 200 words):**
 - What is the innovative aspect of your entrepreneurial idea / product / service?
 - What is the advantage of your idea / product / service compared to your competitors?
 - Does your idea / product / service have an USP?
 - How big is the information or time gap between you and potential imitators?
- **Development potential: risk (max. 100 words):**
 - What are the greatest risks in the implementation of your idea / product / service?
 - How much time (months / years) and which resources (financial, personnel, equipment etc.) will you need to implement the idea / product / service?
 - What are the next planned / necessary steps?
- **Summary of the entrepreneurial idea / product / service (in one sentence):**
 - Can you formulate the unique nature of your entrepreneurial idea / product / service in a single sentence?

Keep in mind that the first impression counts. This applies not only to persons, but also to application forms and presentations. Therefore: Make your application and presentation stand out from the crowd.

Business plan

Make sure that your business plan addresses the core subject of your idea / product / service. Ensure that your business plan is realizable and practicable by having all the right numbers and statistics, indicating from which you have obtained them.

Be an expert on your developed idea / product / service, on its market, including potential competitors, and on its future customers. Make sure that your business plan covers all relevant data, figures and information, and that it is well structured, and easy to understand.

The more time you have for writing the business plan the better it is. You should be able to explain your idea / product / service in a clear way, so the members of the jury – maybe not experts in the specific field of your idea / product / service – can easily understand what and how you want to do it.

It is important that you are able to answer questions related to the potential market for your idea / product / service, about competitors, and how you will finance your idea / product / service. If you can present a serious market research by showing the results of a customer survey or of pilot sales programs, the members of the jury would be impressed.

3. Presentation

When creating your presentation, please avoid long text blocks and descriptions. Instead, insert interesting pictures, figures, and statements in order to draw attention to essential and important points and explain them in a clear and comprehensive way.

Design your presentation in a way that looks professional, clear, and easy to understand.

Some participants make the mistake to being vague in their presentations and to not having a concrete concept about their idea / product / service. Being concrete and precise about what you are presenting shows that you have thought about the details of your idea / product / service, and that you know and understand what you are talking about.

A helpful summary about how to prepare for a presentation can be found at <http://www.rohitbhargava.com/2013/07/7-tips-to-win-a-business-competition-or-pitch-contest.html>.

As for the members of the jury it might become almost impossible to remember the details of all presentations, it is the more important to make your presentation stand out from the

crowd. You have to capture the audience. This could be achieved by telling a story to underline why your idea / product / service is important and worthy to be realized.

Keep in mind that the buying behaviour of all of us is based on emotion. Only in a second step we justify our buying through logic. To deliver a successful presentation it is essential to get your audience to self-identify with your idea / product / service.

Material

The following example of an application form of an idea competition will show you how an application form could look like.

Business Idea Sketch

ENTRY FORM / DETAILS OF ENTRANT

DETAILS OF ENTRANT	
Name (contact):	
Private address: street, city, ZIP code, country	
Telephone:	Email:
Study program: (if the idea competition is organized by a University or a Higher Education Institution)	

* In case of team submissions, please list the names of all participants on the last page.

TITLE OF THE ENTREPRENEURIAL IDEA
Title:

THE ENTREPRENEURIAL IDEA AND ITS POTENTIAL IN DETAIL

THE ENTREPRENEURIAL IDEA (max. 400 WORDS)

Questions:

- How would you describe your entrepreneurial idea?
- What was the point of departure / background to the idea?
- What is the current status of the proposal (initial idea, design phase, prototype, etc.)?
- What is the driving force behind the idea for you or the team?
- How do you intend to implement the idea?

BENEFITS TO CUSTOMERS (max. 200 WORDS)

Questions:

- What product or service do you intend to offer?
- Who are the potential customers for your product / service?
- Why will customers be interested in your product / idea?
- What fundamental problem will your product / service solve for customers?
- What are your customers' needs in the context of your product / service?

MARKET POTENTIAL (max. 200 WORDS)

Questions:

- Can you describe the market / segment in which your product / service will offer benefits?
- How big is this market / segment?
- What are today's trends on this market / segment?
- Is this market / segment growing or shrinking?

COMPETITION (max. 200 WORDS)**Questions:**

- Who are the players on this market / segment?
- What competitive products or alternatives are there on the market?
- What are the key arguments employed by other vendors?

DEVELOPMENT POTENTIAL: USP (max. 200 WORDS)**Questions:**

- What is the innovative aspect of your entrepreneurial idea?
- What is the advantage of your product /service compared to your competitors?
- Does your idea have an USP?
- How much of a knowhow and time advantage do you have over imitators?

DEVELOPMENT POTENTIAL: RISKS (max. 100 WORDS)**Questions:**

- What are the greatest risks in the implementation of your idea?
- How much time (months / years) and what resources (financial, personnel, equipment, etc.) will you need to implement the idea?
- What are the next planned / necessary steps?

SUMMARY OF THE ENTREPRENEURIAL IDEA (1 SENTENCE)**Question:**

- Can you formulate the unique nature of your entrepreneurial idea in a single sentence?

DETAILS OF TEAM MEMBERS**Name:****Private address:**

street, city, ZIP code, country

Telephone:**Email:****Study program: (if the idea competition is organized by a University or a Higher Education Institution)**

Useful literature and helpful links

The following list contains helpful links for a successful idea competition.

- 8 tips to successfully deal with competitors: <https://talentgarden.org/en/2017/02/06/8-suggerimenti-per-affrontare-i-tuoi-competitor-al-meglio/>
- General overview on entrepreneurship, social innovation, generating an idea, strategy etc.: http://www.fox.temple.edu/cms_research/institutes-and-centers/innovation-entrepreneurship-institute/startup-services/resources/
- Helpful information on and useful tools for business plans: <http://www.bplans.com/>

- Article on checklists for a business start-up:
<http://articles.bplans.com/business-startup-checklist/>
- Article on how to write a business plan:
<http://articles.bplans.com/how-to-write-a-business-plan/>
- How to give a good elevator pitch:
<http://articles.bplans.com/the-7-key-components-of-a-perfect-elevator-pitch/>
- Video: What is a business plan?
<http://www.bplans.com/downloads/one-page-business-pitch-template/>
- 12 things that successfully convert a great idea into reality:
<https://www.forbes.com/sites/glennllopis/2013/04/01/12-things-successfully-convert-a-great-idea-into-a-reality/#6add83f64e86>
- A very helpful overview on what a successful business plan should include: Warrington College of Business – University of Florida: The nuts and bolts of great business plans:
<http://warrington.ufl.edu/centers/cei/docs/NutsAndBoltsOfGreatBusinessPlans.pdf>
- Archive of podcasts and videos of lectures delivered at Stanford University by entrepreneurs from companies such as Google and Facebook:
<http://ecorner.stanford.edu/>
- MagPortal.com: Search directory for finding online magazine articles. This portal helps start-ups by providing access to magazine articles about their product / service and industry of interest. Since January 2016, there are no new articles added:
<http://www.magportal.com/>
- European Patent Office: Is your idea a good business opportunity?
<https://www.epo.org/learning-events/materials/inventors-handbook/competition.html>
- Useful tips for brainstorming: <https://www.mindtools.com/brainstm.html>
- Six reasons to participate in student competitions:
<https://www.topuniversities.com/blog/six-reasons-participate-student-competitions>
- Helpful tips to understand your competitors (although the website is created by the Chamber of Commerce of Metropolitan Montreal, Canada, the general content is useful regardless where you are from):
<http://www.infoentrepreneurs.org/en/guides/understand-your-competitors/>

- 10 strategies to be successful in business:
<https://www.successharbor.com/5-simple-strategies-to-make-your-business-more-successful-08292014/>
- Helpful article on how to write a business plan:
<http://articles.bplans.com/how-to-write-a-business-plan/>
- 8 common business plan mistakes:
<http://articles.bplans.com/common-business-plan-mistakes/>
- How to develop your business strategy:
<http://articles.bplans.com/how-to-develop-your-business-strategy/>
- What business plan do I need?
<http://articles.bplans.com/what-type-of-business-plan-do-i-need/>
- Business term glossary:
<http://articles.bplans.com/business-term-glossary/>
- How do you know if you have a good idea for a business?
<http://articles.bplans.com/business-ideas/good-ideas-for-business/>
- Is your business idea feasible?
<http://www.smarta.com/advice/starting-up/business-ideas/is-your-business-idea-feasible/>
- The crucial steps for getting your business off on the right foot:
<https://www.thebalance.com/what-to-do-with-ideas-for-business-1200673>

Preparing the Class to Discuss

Overview

The aim of this organizational module is to ensure that students in the class can freely discuss and share insights and ideas. This will be accomplished by having students sign a confidentiality agreement.

Entrepreneurial Competences

- Valuing Ideas
- Ethical & Sustainable Thinking
- Financial & Economic Literacy
- Working with Others

Learning Outcomes

- Students realize that secrecy can be achieved through agreements.
- Students sign a non-disclosure agreement and make it available to all other students in the course.

Prerequisites

None.

Preparation of the Teacher

Online

If the confidentiality agreement is used in an online or blended learning setting, then you have to prepare a template for the confidentiality agreement and make it available online. It is also very important to set up a space where students can upload the confidentiality agreement in a way that each student can observe that all other students have signed the agreement as well. This can be accomplished through a forum or a discussion board in the LMS you are using.

Presence

Prepare a template, bring enough copies to the class and have students sign the template in class. You might also give time for students to think about the document they are signing. You might therefore offer the possibility to students to sign it until the next class and email the signed agreement to you. Make sure you use about 5 minutes in the next class to ensure all the students that all other student have signed the agreement.

Involvement of External Actors

Below you find a draft version of a non-disclosure agreement. This can and maybe has to be modified to fit to the national regulations.

External actors can be involved

- through adapting the non-disclosure agreement to the national legal regulations
- by giving a small presentation about legal issues pertaining to secrecy

Time

If you want to assign credit points, you can assign students up to 0.25 ECTS. The assignment of credit points is however not obligatory within this module, and depends upon its integration into the course.

Assessment

None.

Content

This section uses 'you' to address students directly.

Please share your ideas! Sharing your ideas and insights in this course is essential. By sharing your ideas - i.e. by writing about your ideas, by sketching out your ideas and by talking about your ideas - you will benefit in two ways.

First, you will realize that it is quite a step to take from having an idea in your head to be able to formulate what it is, what it is about, how it will work, what the benefits are and what the associated risks are. In our heads ideas always look more complete, more convincing and more detailed than they actually are.

Take the advice of a German writer and poet about the construction of ideas while speaking about them. In 1805 the German writer and poet Heinrich von Kleist (1805) wrote the following:

Über die allmähliche Verfertigung der Gedanken beim Reden

Wenn du etwas wissen willst und es durch Meditation nicht finden kannst, so rate ich dir, mein lieber, sinnreicher Freund, mit dem nächsten Bekannten, der dir aufstößt, darüber zu sprechen. Es braucht nicht eben ein scharf-denkender Kopf zu sein, auch meine ich es nicht so, als ob du ihn darum befragen solltest: nein! Vielmehr sollst du es ihm selber allererst erzählen. Ich sehe dich zwar große Augen machen, und mir antworten, man habe dir in früheren Jahren den Rat gegeben, von nichts zu sprechen, als nur von Dingen, die du bereits verstehst. Damals aber sprachst du wahrscheinlich mit dem Vorwitz, andere, ich will, dass du aus der verständigen Absicht sprichst, dich zu belehren...

Concerning the Gradual Formulation of Thoughts While Speaking

If there is something you want to know and cannot discover by meditation, then, my dear, ingenious friend, I advise you to discuss it with the first acquaintance whom you happen to meet. He need not have a sharp intellect, nor do I mean that you should question him on the subject. No! Rather, you yourself should begin by telling it all to him. I can see you opening your eyes wide at this and replying that in former years you were advised never to talk about anything that you do not already understand. In those days, however, you probably spoke with the pretentious purpose of enlightening others - I want you to speak with the reasonable purpose of enlightening yourself...

Kleist essentially says that you should talk about your thoughts but not with the intention to educate others about your ideas but with the intention that you learn about your thoughts and ideas while you speak.

The second benefit you will receive from talking about your ideas is that you receive feedback on your ideas. You receive information about whether or not the assumptions

underlying your ideas are plausible or even correct. You will not get this feedback if you let your ideas stew in their own juice.

You certainly see the benefits of talking about your ideas. However, you will certainly have a bad feeling in your guts that when talking about your ideas (in whatever stage they are) you are revealing too much and others might jump on those ideas. In certain situations this can really be an issue. What can you generally do to prevent this and to establish secrecy for your ideas. What can you do that you do not have to be afraid that sharing your idea will impact its novelty?

A confidentiality agreement is a good tool to make sure your ideas are not communicated to others or used by others. This holds also for this course.

We will provide a Non-Disclosure-Agreement / Confidentiality agreement that all students must sign and return. This agreement binds everybody in the course that all ideas, inspirations, inventions etc. are not to be used or communicated to others.

Hence, keep in mind now that your ideas are save in this course. You can discuss your ideas openly with your fellow students.

Material

The following text is a suggestion for a confidentiality agreement. It was developed in collaboration with Guido Donath from Donath Law.

CONFIDENTIALITY AGREEMENT

Name: _____

(hereinafter „**Undersigned**“)

I, the Undersigned, hereby represent as follows:

- 1) In the context of the course _____, taught at the _____, files, information, documents, records, data and facts may come to my attention (irrespective of method), which pertain to other individuals or undertakings, e.g. lecturers, personnel, students (hereinafter, collectively and individually, “**Disclosing Party**”) and/or constitute a valuable asset of Disclosing Party and may not be generally known or accessible. This may include, without limitation, information concerning research and development, production-processes, test results, production facilities, methods, systems, processes, products, know-how, business secrets, ideas, inventions, patents/utility models, designs,

works under copyright, plans, sketches, drawings, graphics, photographs, software/computer programs, customer base, actual/potential contractual relations, contract partners, corporate data, corporate-, marketing-, sales- and distribution-strategies, financial information, business-forecasts, business-plans (hereinafter, separately or jointly, irrespective of form, appearance, carrier or method of making accessible, “**Confidential Information**”).

- 2) I, the Undersigned, hereby irrevocably undertake and warrant to
 - a. keep the Confidential Information in strict confidence and secret at all times and not to disclose the same or make the same accessible to third parties without the prior written consent of Disclosing Party;
 - b. refrain from using the Confidential Information for own and/or third-party purposes, irrespective of whether this were for commercial or non-commercial purposes;
 - c. employ suitable measures to ensure that the Confidential Information in my sphere of responsibility is at all times and sustainably secured against access;
 - d. instruct employees, representatives, contract partners and other persons in my sphere of responsibility about the content of this Confidentiality Agreement in suitable form and obtain from the aforementioned respective declarations of obligation (unless a confidentiality obligation on their behalf is already in place, provided, that the scope of protection for Disclosing Party envisaged by this Confidentiality Agreement is sufficiently secured).
- 3) Any and all rights and titles in and to the Confidential Information and in connection with the same (including, without limitation, any and all intellectual property rights) vest in and remain exclusively with Disclosing Party. I understand, that I do not acquire any license, right of usage or other right therein.
- 4) Upon Disclosing Party’s request, any and all files, documents, data-carriers (of any form) as well as reproductions, which contain Confidential Information shall be returned to Disclosing Party, completely and without delay. This applies irrespective of who has produced or made the same. No retention right or similar right will be asserted in respect thereof.
- 5) I understand that my obligations hereunder remain in full force and effect also upon termination of the contact or relationship with Disclosing Party, in perpetuity.
- 6) Should any provision of this Confidentiality Agreement prove to be or become invalid or legally ineffective, the overall validity of the Confidentiality Agreement shall not be affected thereby. Until the parties agree on an amended provision, the invalid or

ineffective provision shall be deemed to be replaced with a valid and effective provision accomplishing as far as possible the purpose and intent of the parties.

- 7) This Confidentiality Agreement shall be governed, construed, performed and enforced in accordance with the laws of the Republic of Austria, excluding its conflict-of-laws provisions and the UN Convention on the International Sale of Goods (CISG). In respect of any dispute arising out of or in connection with this Confidentiality Agreement, the parties agree to submit such dispute to the exclusive jurisdiction of the competent court for the registered domicile of Disclosing Party.

Date, signature

Creativity & Inspiration (I)

Overview

This module suggests how you can build a fruitful bridge between jotting down entrepreneurial inspiration with paper and pencil and the digital sphere that facilitates discussion of ideas even across time zones or geographies.

Entrepreneurial Competences

- Spotting opportunities
- Creativity
- Vision
- Valuing Ideas
- Ethical & Sustainable Thinking
- Coping with Uncertainty, Ambiguity & Risk
- Learning through Experience

Learning Outcomes

This module contributes to the students' ability to visualize ideas and insights.

Prerequisites

No prior knowledge is required.

However, it is helpful to work through this module before you embark on a journey that offers you continuous input for your inspiration. The journey does not have to be a journey with all the travel and so forth. It can also be a (virtual) journey, which can be a sequence of events or inputs that finally lead to inspiration.

Preparation for the Teacher

Prepare a padlet at www.padlet.com. Have the padlet password protected and write down the link to the padlet and the password you created. It will be important for your students to access the padlet and to work with it.

It is important here that students sign an NDA, which is provided in the module 'Preparing the Class to Discuss'. The combination of notebooks and padlet as a sharing platform require that good ideas are not public. The NDA should take care of that.

Involvement of External Actors

You can also involve external actors to comment on the insights or ideas the students post to padlet.

Time

As this is only a supporting tool for the idea generation and inspiration. It will probably take less than an hour to get familiar with the notebook and the app (if used). If you need to assign credit points you can assign up to 0.25 ECTS.

Assessment

This module will not be graded as this only gives students a tool to present their ideas in analogue and in digital space.

Content

Tasks for the Students: Bridging Analog and Digital – Get a Notebook!

This section uses 'you' to address students directly.

During this course you will certainly be inspired by discussions you have, by stories you hear and by assignments you have to complete. If you are a part time student or a working professional, these insights and ideas will enable you to look at your current business from a slightly different angle. If you are not working, yet, then these ideas and insights might trigger a business idea that you might want to explore during your studies or after graduation.

All this seems important to me as it will – hopefully – support you in generating insights and getting inspiration that will finally lead you to develop an idea for your final business plan project.

You can also see that visualizing ideas is important in Herting and Willems (2016), which also contains good advice how to sketch certain components of your ideas.

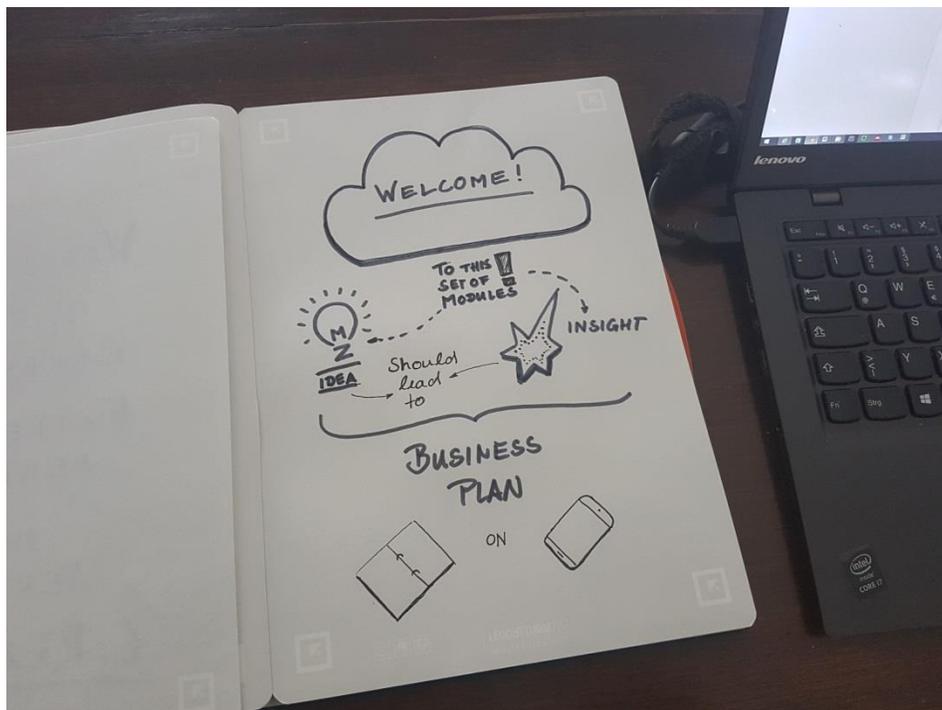
1. Get a notebook!

I strongly feel that inspiration and insight sometimes need the tactile dimension of a paper notebook, pencil, ink, or water-colour. So please drop by the closest stationery shop and get a blank book. I recommend at least A5 sized books, A4 or letter sized books are preferable. I prefer plain or dotted notebooks to ruled or squared ones. But you may have other preferences, which is totally fine.

I have pretty good experience with Moleskin Notebooks or with notebooks by Leuchtturm 1917.

If you purchase a notebook I recommend purchasing one that supports capturing with your smartphone camera. This should facilitate the sharing of your insights and ideas (see below).

Leuchtturm 1917 white lines is one of those. This particular notebook – through the white lines technology – has the nice property that the content can easily be scanned with the White Lines smart phone app. This app seamlessly integrates with your Email, Evernote or Dropbox. It works perfectly with iOS phones and with Android phones.



This is how a Leuchtturm 1917 whitelines notebook looks like.



This is how the sketch looks like when it is scanned by the Whitelines App.

Also, Moleskin notebooks from Moleskin's Evernote collection are pretty nice as well.

Please set the notebook aside and use it for your inspirations related to entrepreneurship and for the ideas and inspirations during this course only.

- Write down inspirations.
- Jot down ideas as they come.
- Draw sketches of new products and services.

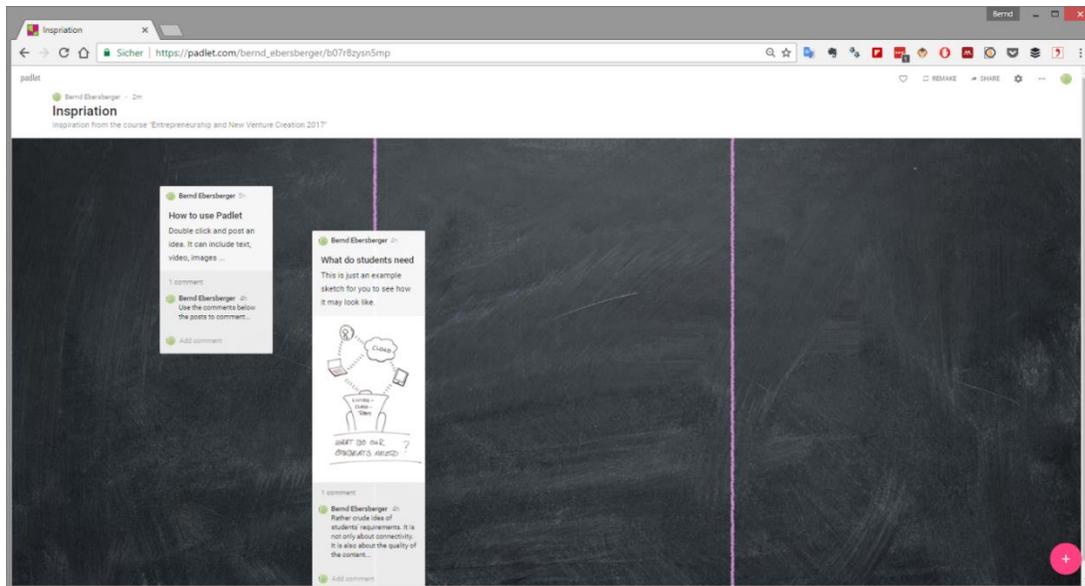
Make the notebook your companion for the duration of the entrepreneurship course. Take it with you, wherever you go. At night put it on your bedside table to have it available when ideas strike in the middle of the night.

Please share your ideas! You do not have to be afraid that sharing your idea will impact its novelty. I will provide a Non-Disclosure-Agreement that I ask all of you to sign and to send back to me. So, your ideas are safe within the group.

2. Share your insights on padlet.com

To be able to share your insights and ideas, to provide inspiration to others I have decided to change the platform and head over to www.padlet.com.

You can imagine a padlet as large blackboard, where you can post all sorts of media: text, images, sounds, videos. Everybody in the group can see and comment.



Please access the padlet through [Link] and use the password: [Password].

References

Herting, N., & Willems, H. (2016). *Draw your big idea: the ultimate creativity tool for turning thoughts into action and dreams into reality*. San Francisco: Chronical Books.

Creativity & Inspiration (II)

Overview

This module offers a set of interventions that can be used as assignments or tasks to spark the inspiration of students. The overall idea is to look at everyday issues and to induce a novel perspective. The ideas and inspirations developed in this module can be the basis for a business plan or for a business plan sketch that, in the end, can be the final paper for an entrepreneurship course.

Entrepreneurial Competences

- Spotting Opportunities
- Creativity
- Vision
- Valuing Ideas
- Ethical & Sustainable Thinking
- Coping with Uncertainty, Ambiguity & Risk
- Learning through Experience

Learning Outcomes

Students experience how interesting it can be to look at familiar issues from a new or changed point of view. Students use these changes in the point of view to get inspirations for entrepreneurial ideas. After this module each and every student has developed his or her way to scribble down, write down or record (otherwise) the ideas that originate from this inspiration. Additionally, students can discuss the ideas of others and can defend their own ideas, accept criticism and improve and refine initial ideas.

Prerequisites

There are no prerequisites for this module.

Preparation for the Teacher

In this sequence of messages there is one that points students to padlet.com. This facilitates the exchange of ideas, mutual inspiration and commenting. If you want this in your course to happen, please make sure to have a padlet set up and have the students sign an NDA.

When you prepare a padlet at www.padlet.com, have the padlet password protected and write down the link to the padlet and the password you created. It will be important for your students to access the padlet and to work with it. Make the link to the padlet and the password available to your students in the course material.

The content section below contains a number of short tasks each introduced with a short text providing the rationale for this task.

1. These tasks can be used as a creativity session at the end of each class when the course spans over the 15 to 16 weeks of a semester.
2. These tasks can also be used as interventions during the off-hours of a course. Say, between classes. These interventions can be sent to the students with whatever is available.
 - a. The announcement functionality of your LMS, if you are teaching online.
 - b. The blackboard close to your office door.
 - c. Twitter, Facebook or LinkedIn when you tell your students to follow your account on social media.

If you use this module and if you augment the list of interventions by adding your own ideas to the list, please share your interventions with the instructor [insert email address of instructor here]. The instructor will add you to the list and will of course attribute them appropriately.

Involvement of External Actors

You can also involve external actors to comment on the insights or ideas the students post to padlet.

Time

Overall this module consists of 15 interventions. In total students might work on this for 25 to 50 hours, depending on the intensity of recording and sketching ideas and insights. So, this module amounts to 1 to 2 ECTS.

Assessment

For grading of the module you can use the contribution to the padlet. However, I do not recommend trying to grade the originality of the contributions but rather the frequency (without a high number of contributions the likelihood of coming up with something good is low) and the way students respond to the ideas of others.

Content

This section uses 'you' to address students directly.

1. Inspiration - Preparation

This is about getting prepared for the exercises that I will send to you in parallel to the readings and discussions. This will be a parallel stream of activities that – I hope – will spark some insight and initiate some creativity. Maybe it is fun. Maybe it helps you to come to an entrepreneurial idea for your business plan exercise.

So, before you get started, get prepared.

- I. Take the notebook provided. This notebook will be your partner for the whole period of the course. I have already written about the bedside table that this notebook is intended to sit on during your nights. Make yourself familiar with the notebook.
- II. If you have purchased a notebook with white lines, then you can have a look at the video <https://www.youtube.com/watch?v=IXiZgVaRkSM> to learn about the notebook and its digital integration.
- III. As indicated already you should share some of the inspirations with all your fellow students' inspiration and ask for comments. I have opened a padlet for that. Please have a look at the padlet address provided in your course documentation. This should be password-protected so that your ideas are secure. The password for this group is provided in your course documentation. as well. Just have a look and try it out. As you can see you can post images to the padlet-wall. This is the very point why

I would recommend you to get an easy to digitize notebook. It should be easy for you to share visualizations of ideas and insights on padlet.

Note: The padlet will be a wall of inspiration and ideas that you all contribute to. Frankly, this is a rather new approach for me. But, if not in this course, where else could I give this a try? At the end of the course I am really interested in your feedback.

2. Inspiration - Innovation and entrepreneurship need support ... and so do you.

Companies often suffer from the fact that important innovation initiatives just disappear in everyday business life. In daily business, there is often not the time and no attention can be devoted to remotely-related matters, to wild ideas or even just to innovation.

The objective of this intervention is to prevent the exercises and inspirations I send you during the course and the activities that I intend to stimulate getting forgotten in your daily business life. Or that you direct your attention to potentially more important things.

- I. Take the notebook and start on the first blank page. Use pen, pencil, colour pencils, ink or watercolour to create a page that you like. If you are afraid to start with a blank page, search for a photo, a picture or an image that you can glue onto the first page. Or create a collage from images that you find inspiring. It is important that you personalize the book. Start creating so that you always like to open the notebook!
- II. Search for a mentor. Within the cohort of students, please build teams of two. You will be you buddy's mentor and your buddy will be your mentor during the course.
- III. As a mentor please ask your buddy at regular intervals about his or her experiences and activities. I assume that you always give benevolent feedback on your buddy's experiences, insights and ideas. Start creating, start sharing, start discussing.

3. Inspiration - Innovation is everywhere

Carefully observing your environment will help you to be creative and to be attentive to changes and you will learn to appreciate changes. As some of the exercises to follow, this will show you that taking a different perspective will offer new insights into your every-day environment. Eventually the exercise will help you to understand that every object, every service and every production process was once a successful innovation borne by some innovator's creativity and entrepreneurial spirit.

Explore your environment (mentally) ...

- I. Write down three innovations – either from your everyday environment or from your corporate environment – that were introduced between 2000-2016. Do not only write the innovation down, try to sketch it and start creating. Do so for the following two tasks as well.
- II. Write down three innovations – either from your everyday environment or from your corporate environment – that were introduced between 1970-1999.
- III. Write down three innovations – either from your everyday environment or from your corporate environment – that were introduced between 1900-1969.

Note: If you have only listed innovations that still exist today, then you have collected comparatively successful innovations.

Please, do not be discouraged by the obvious success of what still exists today. Please never think that innovations in the past have been better and you will never be able to match those products from the past. Never even start thinking along these lines! The entrepreneurs and the innovators in the past have not been greater, not been brighter, not been more creative, and not been more successful than you are!

It is all a misconception:

Just think about why we believe that the Romans were such great constructors? The answer is as obvious as it is amazing. The Romans appear to us to be so successful simply because we only perceive the works of Roman architecture, which have survived over the millennia. We no longer perceive the poorer quality buildings. Those have vanished in dust. As a matter of fact, the same is true with rather unsuccessful innovations (“flops”). Of course, they have vanished as well. Nevertheless, those flops can still teach important lessons. This will part of the next exercise.

4. Inspiration - Failures are instructive

Naming successful innovations as you have done in the previous exercise is a relatively easy exercise. A slightly larger challenge is to recall your own failures or other people’s flops. One’s own failures are often banished from the active memory by mechanisms of repression. The flops of others are often not visible because no-one likes to talk about failures. Failures are likely to be swept under the carpet.

Try it anyway in the following exercise.

- I. Try to find a few innovations that you would classify as unsuccessful. Focus here again on your everyday or your current corporate environment.

- II. Why were these innovations not successful? Try to analyse in retrospect the factors that were responsible for the failure. Collect reasons for the failure and write them down in your notebook together with the failure or flop.
- III. Now seat back and start pondering what can you learn for yourself and your company from that very failure?

Use your notebook sketch or write down your insights.

5. Inspiration - Creative destruction

Creative destruction describes the economic phenomenon of the new displacing the old. New technologies displace old technologies. New products displace old products. And new companies displace old companies. By the way, this is what you strive for as entrepreneurs!

In terms of the latter, see the German language documentation of the “Creative destroyers in the German economy” in the Financial Times Germany (FTD) at <https://web.archive.org/web/20130716014528/http://www.ftd.de/karriere/karriere/:kreative-zerstoerer/437770.html>. Please note the irony here: You can access the Financial Times Germany only through The Internet Archive (Way Back Machine) because on Dec 7th, 2012 the last issue of the FTD was printed and the Financial Time Deutschland ceased to exist. FTD could not get a sustainable foothold in the German market. It set out to rejuvenate the German landscape of management and economic journalism but failed.

Try to find examples of creative destruction. Consider also what effect the creative destruction had.

- I. Which technologies have disappeared and were replaced by others?
- II. Which products have disappeared and were replaced by others?
- III. Can you find creative destruction perhaps in other areas? Maybe in sports? Think of strategies and positions in football. Think of movement sequences during the high jump.

Use your notebook and visualize the creative destruction.

6. Inspiration - Destruction and creativity

As we have seen creative destruction is the economic phenomenon when new displaces the old. Sometimes there are things destructed - in the real sense - that give rise to new opportunities. So, this destruction has to be met by creativity to solve the problem. If you think about traditional patterns of social interaction or societal and environmental

structures that are destructed and you meet these with new ideas, then we could say that you are exercising social entrepreneurship.

- I. Think about a societal or environmental phenomenon, that you care about or the development of which makes you unhappy.
- II. Brainstorm about solutions to this problem. Even if the problem you might have in front of your eyes is huge (some speak about 'grand challenges') you might consider starting small.

Please note, that an idea that addresses a societal problem does not have to be a non-for profit organization in every case. Making profits can be really helpful even if your business is driven by a cause. To get an idea about this please talk to a management accountant who you know about how hard it is for a company to survive when it strives to make no profits at all. Talk to an innovation manager how hard it is to invest in innovation (and hence in future sustainability) when the organization may not have profits that can be invested in innovation projects.

7. Inspiration - Competence-destroying innovations

Creative destruction does not only apply to companies or products. Technological change can also make skills, abilities and knowledge obsolete. This so-called competence-destroying technological progress means that the skills, the knowledge, abilities and routines of formerly very successful companies no longer have any meaning in the context of the new, changed in technology.

Watch this short film about Polaroid <https://vimeo.com/46696217> and see what people do to struggle and to fight still exploit the technological capabilities that once created Polaroid's competitive advantage.

Technological change that destroys the expertise of companies, leads to new opportunities and changes in the sectors affected. Only companies that can quickly adapt to the technological changes can successfully weather this technological change.

- I. Look around in your sector. In doing so, pay special attention to new technologies. Pay attention to initially small changes that may affect only small areas of your current market. Do you notice signs of technological change that could render specific skills of your company obsolete?
- II. Think about which steps are necessary for the benefit of your company to take advantage of this change.

For a more theoretical take on competence-destroying and competence-enhancing technological shifts you can read Tushman and Anderson (1986).

8. Inspiration - Effects of innovation

Innovations can cause different effects. These effects can be short-term or long-term, positive or negative. They can be intended, and they can be unintended.

For example, consider the digitization of music that was ushered in with the CD as a music medium. This innovation was very successful in the short as well as in the medium-run. Just think of the prices of CDs and their associated economic successes. It's not too presumptuous to argue that precisely this digitization almost gave rise to the long-term demise of the music industry. The obsolescence of the music industry's business model was triggered by the innovation of the CD.

- I. Generally, which areas can be influenced by innovations, where might the effects of innovation occur? Do not think of economic effects only! How do these effects come about?
- II. Does it generally matter where these innovations originate from - whether these innovations originate from large incumbent companies or whether they originate from small start-up companies new to the industry?
- III. Select one of the innovations you chose for the period from 1970 - 1999. What effects did this innovation have? Can you distinguish short-run effect and long-run effects? Evaluate whether they are positive or negative effects. Please pay particular attention to the changes in the industry structure that these innovations presumably caused.

9. Inspiration - The potential of non-customers

A very simple - almost trivial - arithmetical exercise shows that the group of people, organizations or companies who do not currently belong to your customers is larger than the group that you already call your customers. So, it can be a rather entrepreneurial move in your given organization to analyse how to convert non-customers into customers.

You can learn from the group of non-customers. Perhaps there are certain barriers that prevent these non-clients from buying your products. Perhaps these non-clients do not need your products because they use other means to solve the problems that your product solves. Or because these non-clients do not appreciate the benefits that your products

(goods or services) can offer. From the knowledge of the obstacles and barriers of your non-customers you can derive opportunities for innovation.

These innovation opportunities will not only help you to increase the satisfaction of your existing customers, but also to convert a – possibly small – number of the non-customers to actual customers. So, be open not only to the problems of your customers, but also be open to the problems of individuals or organizations that are not yet among your customers.

Ask the following questions to identify new opportunities for innovation and entrepreneurship:

- I. Which people, companies, organizations are not customers yet?
- II. Which obstacles and barriers are causing this? How can you overcome those obstacles or barriers? Think about new features of existing products and services. Think about new pathways of delivery.

10. Inspiration - Without exaggeration

The German speaking economies owe much of their success to the precision engineering that accounts for a lot of innovations. But for economic reasons, these feats of engineering are disadvantageous, if customers do not or cannot appreciate this level of precision. Or if this precision gives rise to a number of functions that are used only by a small number of customers.

For the first case, consider for example, the very successful Gillette wet razors. We read that Gillette has been represented in the German-speaking countries since 1908 and was very successful with a single-blade razor. In 1971, Gillette introduced razors with two blades. In 1998, Gillette introduced razors with three blades. In 2006, the latest generation of Gillette razors already combined five blades. If we extrapolate this exponential growth in the number of blades we would expect a Gillette razor to have 70 blades in 2016. So the 'additional blade'-approach is clearly not a rational approach to innovation.

As an example of the second case Microsoft Word is often quoted, the sheer amount of functions and commands exceeds what most users require and use by some magnitude.

Please have a look at the following sources:

Picker, Randal C., The Razors-and-Blades Myth(s) (September 13, 2010). University of Chicago Law & Economics, Olin Working Paper No. 532. Available at SSRN:

<https://ssrn.com/abstract=1676444> and the link <https://www.bbc.com/news/business-39132802>.

- I. Think about what would happen if you could save 20 percent of the functionality of one of your products and thus would be able to reduce the price by 80 percent.
- II. Think about which customers you would lose by this measure, which customers you could win. Consider also what effect this measure could have on the production and product maintenance. Would this be a measure to gain new customers?
- III. Please relate your thoughts to [frugal innovation](#), which might not only be an interesting innovation strategy but also inspire a new way of thinking about entrepreneurial ideas.

11. Inspiration - Not for profit?

Throughout the course you have to bear in mind that entrepreneurship is not only about starting a business that is intended to earn enormous monetary profits.

Entrepreneurship skills can also be employed to start projects or social enterprises that address local, regional or even global challenges in a new way and hence contribute more to the societal welfare than they contribute to fattening the entrepreneur's wallet. So, during the course do not only think profits but also think societal welfare!

- I. Watch this [TED-talk](#) highlights three cases of local eco-entrepreneurship and observe that entrepreneurial spirit can attack societal and environmental problems from a completely different angle.
- II. Look at an area or a cause that you care about. Think about the problems there. How can you contribute with your entrepreneurial spirit to solve some of those problems?

12. Inspiration - Business models

Innovations often provide the possibility for completely new and innovative business models. Briefly, innovative business models consist of new products and services, a new added value logic and a new revenue logic. More detail about business model innovation is coming up during the next two weeks.

Innovative business models variously also change the way in which money is earned with products and services. Have a look at this inspiration and start thinking about business models even before we have covered them in the 'official' part of the course.

Ask yourself the following question:

- I. Investigate the business model of JC Decaux
<https://www.blueoceanstrategy.com/bos-moves/jcdecaux> and
<http://www.jcdecaux.com/blog/invention-new-business-model>. (Please copy the two links and open them in a separate browser tab.)
- II. Do you know of companies that separate payment and use like JCDecaux?
- III. Could you adapt this component of the business model to your company or specific product groups within your company? What impact might such a change have? Think about the number of customers interested in your service and also consider your price range.

13. Inspiration - Customer is King

Procter & Gamble had considerable economic difficulties at the beginning of the millennium that were caused inter alia by the fact that the organic growth targets were not achievable using conventional innovation strategies. Under the leadership of CEO H.G. Lafley from about 2000, Procter & Gamble then turned to an opening-up of innovation activities (= Open Innovation). Btw: H.G. Lafley left the company after a couple of successful years. His successor was not really successful so H. G. Lafley was brought back to P&G – I even heard that he was called back from retirement (but this may be a myth).

Check out the interview at the following link <http://www.youtube.com/watch?v=xvIU5xXrffc>

For Procter & Gamble, the customer is at the centre of the innovation.

Take this idea of Procter & Gamble.

Also place your customer at the centre of your considerations.

- I. Consider first what your client looks like. Portray your customer. Imagine an image of your customer.
- II. Where do they come from? What is their biography?
- III. What is their everyday life like?
- IV. What activities do they perform?
- V. What problems do they have to overcome?
- VI. Now write down a brief (fictional) story, create a collage using pictures of your customer. You might as well draw and sketch a picture of your customer - This is to get a picture of your customer in the metaphorical and in the real sense. If you have a clear picture of your customer it might be much easier for you to come up with new goods or services for your customer. You might have a better understanding of his or her needs.

14. Inspiration - Arrrrrgh.

The world would probably be (almost) perfect, if all products worked as the respective innovators had imagined.

Unfortunately – or thank goodness – the world is not quite so perfect. This offers certain opportunities. It allows you to improve your products continuously - it also allows you to improve on your competitors' products, if you approach this cleverly.

Observe your customer in interaction with your products.

Whenever the user of your products hesitates or curses when handling it, then you have discovered a dimension in which you can improve your product.

First, look at the user-friendliness of your products or services. For the further development of your own products, ask yourself the following questions:

- I. Which inconveniences apply when acquiring your products?
- II. Which inconveniences apply when using your products?
- III. Which inconveniences are there with the disposal of your products?

15. Inspiration - Yeah!

In the previous exercise, you started thinking about how you can reduce inconveniences in acquiring, using, and disposing of your products.

Ultimately, you want to increase the willingness to pay of your customers. This of course does not only increase with reduced inconvenience. It is also largely determined by the quality of your products.

Usually it is assumed that higher product quality also leads to a higher willingness to pay.

Now try a thought experiment to find out what you need to do if you want to increase the quality of your products. Do not be offended by the questions rather radical nature. Try to answer this, you can always downgrade and reduce. But for the time being, please stick with the radicalness of the question.

- I. First, you need to have clarity about what your customers perceive as quality. So what is the product quality for which your customers are ready to pay?
- II. What would you have to do to increase the quality of your products by a factor of 5?

- III. Which parts / modules / construction principles / processes would have to be improved in order to increase the quality of the products significantly?

References

Tushman, M. L., & Anderson, P. (1986). Technological discontinuities and organizational environments. *Administrative Science Quarterly*, 31(3), 439–465. Retrieved from <http://www.jstor.org/stable/2392832>

Opportunities

Overview

This section is about trends as one source of inspiration to find opportunities for entrepreneurial activities.

Entrepreneurial Competences

- Spotting Opportunities
- Creativity
- Vision
- Financial & Economic Literacy
- Coping with Uncertainty, Ambiguity & Risk

Learning Outcomes

After having completed this section students can identify trends. They know different sources where they can find discussions about trends. They can also work with trends and discuss the implication of certain trends on their business. They know that trends are a valuable source to point towards current or future opportunities.

Prerequisites

A basic understanding of entrepreneurship is important. Students should have completed the section that introduces entrepreneurship and the entrepreneur in detail.

Preparation for the Teacher

Make sure students have internet access in the classroom to access the websites below.

Involvement of External Actors

If you have access to external actors that are knowledgeable about trends, invite them to your classroom. You can also arrange for an excursion to a company in your region and discuss how this company responds to certain trends. The excursion is generally more

impressive the larger the company is and the more systematic the company really engages in building scenarios based on different trend trajectories.

Time

0.5 ECTS.

Assessment

You can assign students a different industry each. Have them present the industry and relevant trends that will affect the industry in 10-15 years. You can grade the presentations then.

Content

This section uses 'you' to address students directly.

Tasks for Students: Trends

Please read through Fuduric (2008) on entrepreneurial opportunity. Fuduric (2008) distinguishes between Schumpeterian opportunities and Kirznerian opportunities. You should be able to distinguish both. Fuduric (2008) argues that an entrepreneur can be described from a Schumpeterian perspective and from a Kirznerian perspective. It is not 'either ... or ...' for the entrepreneur; rather the entrepreneur can be understood as being both Schumpeterian and Kirznerian. Both views have different ideas of what entrepreneurial opportunities are. It is important for you to distinguish both for the assignment below.

Additionally, note that recognizing opportunities requires prior experience in the field and it requires hard work and openness towards unusual points of view and the unexpected insights that might follow (<https://www.fastcompany.com/3022490/why-openness-to-experience-is-the-key-to-creativity>).

Discussion: A Whole Universe of Trends

Trends are an important source of insight and provide valuable inspiration for new products, services or processes. The analysis of trends is also extremely helpful for the assessment of the potential growth trajectory your ideas and your new ventures have.

Here are some web-site that offer trend analysis.

German language:

<http://www.gdi.ch/de>

<http://www.trendbuero.de>

<http://www.trendone.de>

<http://www.z-punkt.de>

<http://www.zukunftsinstitut.de>

International:

<http://www.trendwatching.com>

<http://www.springwise.com>

<http://www.trendhunter.com>

<http://www.psfk.com/>

Some of these sites offer a small part of their analysis for free.

MCI has licensed the Trendexplorer, a trend database generated by TrendOne. In the next couple of weeks, you will receive login information so that you can explore the TrendOne's universe of trends. You can search the data base in multiple ways.

The screenshot shows the TrendOne Trendexplorer website in a browser window. The URL is <https://www.trendexplorer.com/en/cockpit/>. The page features a search bar with the placeholder text "Enter searchtext" and a "More options" link. Below the search bar, there are two main sections: "Newest Micro-Trends" and "Active researches".

Newest Micro-Trends:

- February 26, 2016: Creating game worlds in virtual reality (MORE)
- February 26, 2016: Nanopayments for online content (MORE)
- February 26, 2016: (Image placeholder) (MORE)

Active researches:

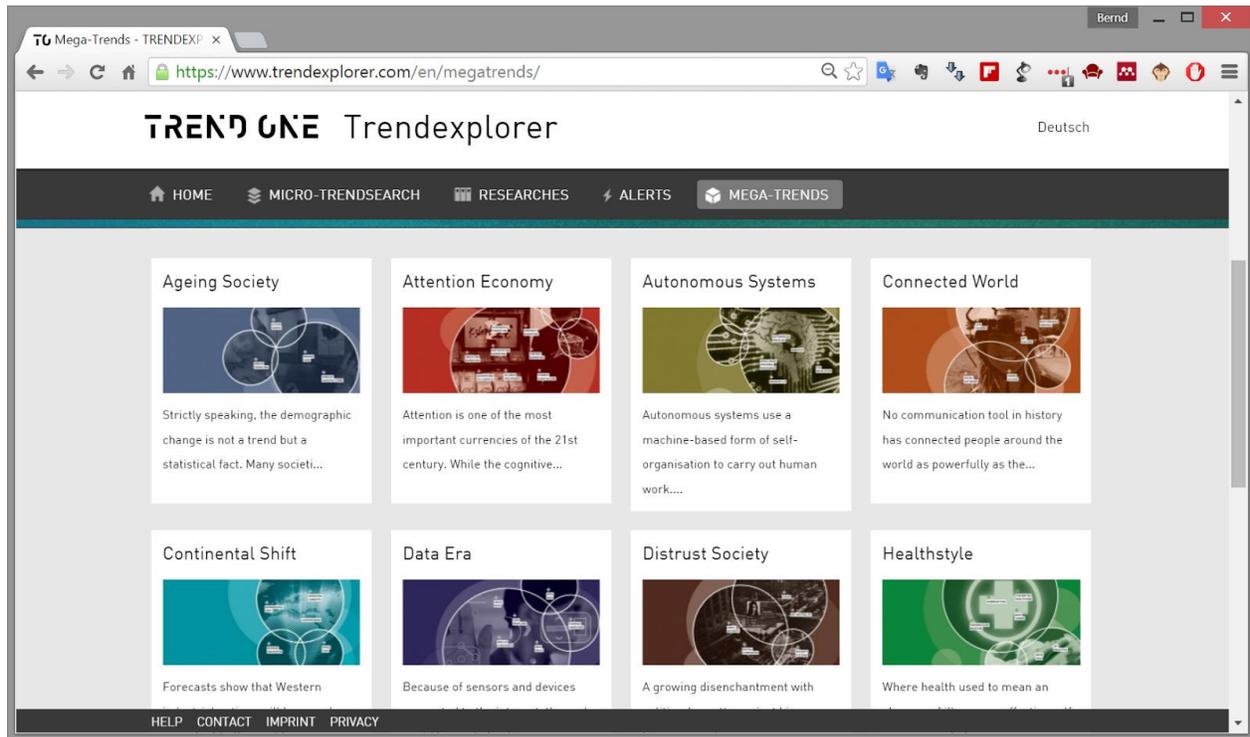
Education	0	30
Wood	0	17
Food	0	22

Active Alerts:

- Best Practice
- monthly

The footer contains links for HELP, CONTACT, IMPRINT, and PRIVACY.

The Trendexplorer aggregates the Micro-Trends into Mega-Trends:



But still I feel that the most important and the most interesting feature of the Trendexplorer are the Micro-Trends. TrendOne uses the term 'Micro-Trends' for innovations, new business models, new processes, ideas and technological developments (in the prototype-stage). The data base currently carries over 20,000 Micro-Trends. You can search these Micro-Trends by category, by industry, by megatrend, by innovation type, by country and by time frame.

Please note: During our course you can use the provided login-information to analyse trends as long as they relate to the tasks assigned during the course. Please do not use the login-information for other purposes such as consulting other individuals or enterprises or for writing and selling trend-reports with information from the Trendexplorer. This is not covered by the license we purchased for you.

Question

Please collect (from the Trendexplorer or from other sources – see above) trends that matter in your current industry or to an industry you know well. Briefly describe these

trends and discuss how these trends will change the way business is done in your industry. Please also identify entrepreneurial opportunities from these trends.

Please note that one of the key success factors for entrepreneurial success is the entrepreneurial focus on solving customer problems. When you identify entrepreneurial opportunities please focus on customer problems that might occur based on the dynamic change generated by the trends you observe.

Please also note that the identification of trends and the assessment of their importance is a rather subjective endeavour. The trends I identify are probably not the trends that you identify. But your argumentation will have more punch, if you can convince others that the trend you analyse really exerts an important dynamic. So, you might also challenge your fellow students' analysis.

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Trends and Dilemmas

Overview

This section builds on the insight that for each trend we can find a counter trend. The aim of this section is to sensitize students towards this dichotomy and to show them the potential that lays buried in this tension.

Entrepreneurial Competences

- Spotting opportunities
- Creativity
- Vision
- Valuing Ideas
- Ethical & Sustainable Thinking
- Motivation & Perseverance
- Coping With Uncertainty, Ambiguity & Risk

Learning Outcomes

After having completed this section, students will be aware of the fact that trends and counter trends depend on each other. Students will be able to talk about a couple of these tensions on a rather abstract level but can create ideas how to make use of this tension.

Prerequisites

Having an understanding of entrepreneurship and an understanding of trends is certainly helpful for completing this module.

Preparation for the Teacher

Take the dilemmas below and make them available to the students.

Involvement of External Actors

External actors could be involved to speak about their personal experiences with trends and dilemmas. Ideally, there should be an external actor who tells about how he struggled with the tensions of trends and dilemmas; and the other one about how it was possible to makes use of these tensions.

Time

0.25 ECTS.

Assessment

You can grade a presentation if you want to include one in this module.

Content

This section uses 'you' to address students directly.

Trends and Dilemmas

Usually, there are hundreds of trends such as macro trends and micro trends.

And it seems that for each trend there is a trend pointing into the opposite direction.

On the following pages I illustrate that even for rather abstract trends there is a counter-trend. This generates dilemmas. This generates a tension. And it is precisely this tension between two (or more) developments that can be used for developing novel offerings:

The trend dilemma: Openness vs. Isolation

Openness

Globalization is blurring national, economic and cultural borders. The growth of free trade and the Internet have left more openness in the exchange of goods, knowledge and customs that goes beyond geographical or social boundaries. Private information, images and experiences are made available online, and open collaboration models are expanding the horizons of traditional business models. Innovation processes are continuously reformed into open innovation models. It is increasingly recognized that the value of

knowledge increases when sharing it and when combining knowledge originating from different domains.

The radical opening of the world has contributed to the growth of affluence and liberty across the globe expanding to create a new middle class also in emerging economies such as China, India or Brazil.

Only opening our notion of a value chain can supply insights for its reconfiguration to create shared value.

Yet, openness also brings risks. There are increasing fears of uncontrolled migration, the involvement of nation-states in supranational institutions, and the fear of uncontrolled leakage of knowledge creates mutual dependencies and challenges that could lead to the collapse of the entire system.

Isolation

Protecting oneself against all that is foreign, all that is alien, or all comes from the outside is a basic strategy for survival. Systems such as organizations need boundaries. Take for instance the immune system defends an organism against outside influences, patents and other IPRs safeguard companies' intellectual property and people protect their homes with what is called siege architecture. Competition seems to rely on a notion of isolating a company's core competences.

There are signs of a return to closed systems as a countertrend to the increase openness in the world. In some areas we observe a reduction in tolerance. Fears of the opening of national borders and the growing significance of the supra-national institutions are leading in many parts of the world to a rejection of foreign influences, new protectionism and the creation of various to train and movement. More and more countries are calling for stricter measures to protect national markets, intellectual property and the security of the citizens. Yet, extreme defence mechanisms often become self-destructive. In a biological sense, organisms and in an economic sense, organizations that are completely isolated from their environment will die and vanish. People and organizations without social contact will ultimately perish. Organizations that cannot or are not willing to participate in collaborative networks can easily lose ground and fall behind.

The dilemma creates opportunities: Stability through symbiosis

The principles of openness and isolation are both becoming increasingly important. With the spread of globalization open systems will take over even more areas of society,

research and the economy. Yet as individual companies and states strive for security and competitive advantages protectionist strategies become more widespread. Ultimately, however, both radical isolation and complete openness have negative consequences. Thus, for systems to remain stable in the long term they require protection mechanisms that meet the requirements of an open world. Biology provides models for this—the immune system has developed strategies based on a balance between openness and isolation. It eliminates dangerous intruders while learning to tolerate harmless foreign influences. Plants, animals and humans can use symbiosis to benefit from the positive effects of foreign entities. The same principles also work in business and politics. What is needed is the creation of intelligent protection mechanisms that can differentiate between the opportunities and risks. Strategies of co-competition can pave the way for such a development. The future is only fit for those who can survive in the competition for markets without the isolating themselves and who can create advantages out of new conditions. This applies to both state strategies for integrating migrants and to new business models to tackle potential threats. This was the case for example when illegal Internet file sharing sites laid the foundation for commercial sales models for digital music.

The trend dilemma: Reason vs. Emotion

Reason

Ever since the Enlightenment rational argument has formed the basis of democracy, science, economics and law. Conventional medical science, for example, is based on a model of the body as a molecule machine, and economic theory is founded on the behavioural notion of the *homo economicus*, which assumes that people make purchasing decisions only based on rational consideration, by rationally comparing a range of offers.

Philosophically put rational argumentation provides the security of verifiability and provides protection against arbitrary judgement. As a result, scientific models are being applied to ever-new areas, adding to an increasing quantification of the world around us. We observe this philosophical argument in everyday life. Measurement and quantification is increasing in all areas. The huge popularity of ranking lists for universities, financial products or the quality of life in cities and the frequent uncritical way in which people use search results in the Internet are indicative of the unshaken faith in our ability to measure of the nature of things.

Yet, we are still far from being able to understand complex systems such as the human brain, financial markets or the ecosystem in completely irrational terms: explanatory models based on reason alone often fail to account for the complexity of reality.

Emotion

Everyday life, politics, business and even science are marked by emotion. Also, fear and euphoria much influence human behaviour and decision-making. Voting outcomes and stock market behaviour alike. Unlike reason, emotions have previously often been excluded from serious potential explanatory components. Yet, as image creation becomes more important for both companies, products and people, coupled with the risks of emotion driven systems such as stock market or political campaigns, emotions are increasingly becoming the focus of both scientific and business interest.

The dominance of reason is also declining elsewhere: patients also prefer treatments that concentrate more on the spiritual well-being and growing numbers of people are rejecting traditional religions and turning to new forms of spirituality in the search for the meaning of life. Yet, the new weight given to emotions and increase the danger of spontaneous instinct rather than rational consideration or experience, which can finally lead to poor decision-making.

The dilemma creates opportunities: Algorithms for emotions

Both purely rational and purely emotional models have reached their limits. The long-established insight that racial and emotional are equally important is receiving a new post in the 21st-century. Multifactor diseases cannot be understood without including the psyche, politics is based on both rational and emotional decision-making, and despite computerized trading systems the financial markets are more volatile than ever before. This calls for new concepts that combine rational models and emotional approaches as complementary systems and for their use as equal epistemological tools. If apparently irrational behaviour can be rationally explained by including an emotional component, it would one day be possible to predict stock market prices more accurately and it would allow predicting consumer decision more accurately. Politicians could provide a bearer bases for a political consensus through a better understanding of the emotional and rational elements of water behaviour. And if emotional intelligence works to make robots more likeable, they would be more socially acceptable there is in areas such as tear for the sake and elderly, for example. Interdisciplinary research disciplines such as in neuro-psychology or in neuro-economics are pioneering in this field by contributing to an understanding of the mechanisms of emotional behaviour, which can then be integrated into rationally based theories. Finally, this will lead to better decision-making.

The trend dilemma: Nature vs. Artifice

Nature

For millions of years flora and fauna have formed the basis of human civilization. It is important to note that every day the ecosystem ensures continued survival by providing fertile soil or oxygen through photosynthesis. At the same time, it serves as a retreat from the hectic pace of everyday life. Yet, the destruction of the very foundations of our life continues unabatedly as a result of our increasing hunger for resources. With the growing awareness of these dangers comes the renewed realization of the value of nature. Many people have the desire for a world of real and authentic experience.

There is a growing demand for environmentally friendly products and services, take for instance organic produce, plant-based cosmetics, renewable energy or forest kindergartens. Yet, nature is also increasingly being romanticized. Organic food, for example, is not healthier than traditional produce and natural medicine remains helpless when faced with many serious illnesses. But above all natural resources will not be sufficient in the long to meet the needs of the growing global population for food and energy.

Artifice

Human evolution was only made possible by the use of technology. Tools for hunting and agriculture ensured access to sufficient food supplies, fire allowed us to prepare and finally digest food more quickly and to use this save time more efficiently, in the Industrial Revolution contributed to men's economic roles. Yet with increased levels of technology, more and more activities that were once predominantly nature-based are being replaced by artificial alternatives. Foods, physical appearance and leisure are increasingly becoming products of technological progress. Functional foods, for example, can replace the fruits as a source of vitamins, plastic surgery is superseding natural beauty and recently gaming consoles are replacing the walk in the woods. Yet, this is also leading to a dependence on technology and alienation from the real-world experience.

The dilemma creates opportunities: Technology saves nature

Technology is increasingly taking over the world and encroaches upon more and more areas of life with intelligent everyday appliances. Society's reaction is mixed. On the one hand technical gadgets are referred to as a blessing for the modern world. On the other hand, a growing section of the population opposes the growing dependence on technology and

the danger of for example electromagnetic radiation or nuclear energy, and thus idealize this nature. Yet, in fact the borders between nature and technologies are becoming increasingly blurred. More and more technologies, for example are making the use of nature's blue prints and strategies. Biomimetic methods, the artificial reproduction genetic material or the environment friendly production of artificial meat from muscle cells could proof of great service to humanity in combating disease or famine. The organic products of the 21st-century will increasingly be grown in the laboratory. Medicine is also discovering nature's potential: sharkskin is already used as a model for germ-free surfaces. And to protect valuable land solar energy may one day be outsourced into space. Thus, with the threat to make sure as the basis for a life, the focus of technology is increasingly shifting towards the development of solutions to save the planet and humankind.

The trend dilemma: materiality vs virtuality

Materiality

Since the dawn of humanity material goods have stood for power and security. Think about what we commonly perceive as status symbols: In the developed world status is defined through houses, cars, jewellery or electronic gadgets. They reveal one's social background, dominate the consumer goods market and have formed the basis for economic growth in recent decades. They will also dominate the consumption pattern of the emerging middle class in economies such as China, India and Brazil.

Yet, the system is increasingly reaching its limitations. In the oversaturated affluent society, it is becoming more and more difficult to continually generate demand for new products. At the same time the one-sided focus on consumer goods accelerates the exploitation of natural resources.

A society whose primary concern is materialism also runs the risk of losing its sense of the meaning of life, which – most will agree – is rather immaterial.

Virtuality

The digital revolution has fundamentally altered our relationship to the material world. Today dating, friendships and shopping increasingly take place in the virtual world. Books, music archives and film libraries are disappearing from the bookshelves in our homes, and can now be reproduced countless times and distributed in digital form in a matter of seconds. Records or books that were once rarities are now freely available online.

This may create the foundation for new business models, but it also leads to a loss of value for material goods.

At the same time the dematerialization of the world allows us to overcome the passing of time: digital information on people or institutions is stored forever in the collective memory of the internet.

Yet, the increasing dynamics of the virtual world might frighten people and accelerate the speed of life beyond what can be captured and digested by human senses.

The dilemma creates opportunities: Back to the analogue world

The virtualization of all areas of life continues unabatedly. The Internet of things is leading to a digitization of the real world in which everyday objects and people are constantly in contact via electronic networks. This leads to a further increase in efficiency and allows for an increasingly precise copy of reality as the amount of data collected grows. Yet with on-going digitization comes a growing risk of alienation between the real and the virtual worlds, with people becoming overwhelmed in an ever larger and faster world of bits and bytes. Maintaining social contacts in online networks does not necessarily lead to more intimacy, and also makes it more difficult to access the true qualities of a person hidden behind a virtual profile.

A society that has no relation to material goods will also lose any sense of their real value. Thus, it is necessary to strengthen physical reality in areas where personal relationships are of central importance in the form of analogue protected zones, similar to nature conservation areas. As impersonal and data-based transactions will no doubt continue to be digitised, more interfaces between the digital and analogue worlds are needed. Virtual environments will have to assume more and more features of the real world and assume the features of real-life experience. Musicians, for example, play their virtual instruments much more intuitively with real switches and dials than with mouse clicks. And in electronic transactions it would be make sense for traders to see the material equivalent in bank notes before they make a payment of a billion-figure sum.

The trend dilemma: Scarcity vs. Abundance

Scarcity

People, companies and states have always had to face the challenge of dealing with scarce resources. For most of human history and even today food, technology and knowledge were unequally distributed throughout the world. Thus, the prerequisites for success were

thrift, modesty and above all strategies to overcome shortages. Frankly also the scarcity of resources is an important driver for creativity.

Philosophically put, scarcity of time is the only reason why the question for the meaning in life makes sense.

With increasing efficiency in the production of foodstuffs and consumer goods and with the advent of digital networks, these former shortages have now been overcome in many areas. Now (almost) everyone in industrialized nations has access to food, television and knowledge. Yet, the increasing consumption of commodities by a growing world population is leading to new shortfalls. Basic resources such as clean air, fossil fuels or water, which used to be available in abundance and at low or even no cost in many places, are now becoming increasingly scarce. Customers more than ever cherish corporate efforts to reduce the resource consumption.

Abundance

With growing affluence around the globe coupled with falling manufacturing costs, now even luxury goods such as cars and haute couture – which used to be status symbols until recently – are widely available. Almost one in two Japanese women wears Louis Vuitton today. The spread of the Internet also leads to new abundance: digital products such as music or film can be reproduced any number of times and are losing value as a result.

As a reaction companies are attempting to create attractive designs for products with ever-changing image campaigns in the hope of maintaining profit margins or to make luxury goods rare once again through strategies to artificially limit supply.

Additionally, the digital age has swamped consumers and business leaders with an abundance of information that can easily be confusing and create an attention allocation problem.

The dilemma creates opportunities: Redefine Luxury

The availability of scarce and abundant goods is being inverted. Today's luxury goods are becoming standardized mass-produced items, whereas what until recently were seen to be resources that could be taken for granted such as clean air, fossil fuels, arable land or space to live in are becoming increasingly precious. Luxury needs to be redefined. For many people quiet residential areas, radiation-free zones without internet connections and closeness to nature have become the epitome of true luxury. Yet, although this shift in values has taken place in some people's minds, the majority might still see the horsepower

of a car as a bigger status symbol than its energy efficiency. What is needed are incentives that anchor tomorrow's scarce goods in society as luxury items. To put it differently, these items have to be perceived as precious and given a price that reflects their real market value. Thus, the costs of electricity, furniture or meat would also include the amount of water that was used for their production. Now research needs to concentrate even more on the substitution, regeneration and sustainable use of basic commodities such as land, air, food, metals, and energy sources. Politicians face the challenge of developing mechanisms that regulate efficient use of the scarce resources of the future while allowing for economic growth. For example, companies should be forced to document and pay the costs of their ecological and social footprint.

The trend dilemma: Form vs. Content

Form

We judge people and subjects primarily on the basis of their outward appearance. Good-looking people have better chances on the job market, and beautifully designed products sell at higher prices. This hierarchy of form and people's sense for aesthetics provides simplicity in an increasingly complex world and pushes inner values into the background. In the affluent society, appearance and form have become the new content. Cars, computers, books and food are increasingly judged on the basis of their design, which in turn takes on the status of a product quality itself. Is the same true of people?

Business with plastic surgery and lifestyle drugs such as Botox is booming, and models are replacing intellectuals as opinion-makers. Yet, image without content is reaching its limits. As the discrepancy between outer form and inner value grows, confidence in attractive appearances falls.

Content

Humans have always wished to understand complex phenomena. As the labour market becomes increasingly specialized, the ability to analytically examine ideas has become a prerequisite for success. In addition to the importance of expert knowledge, the humanist education ideal is also undergoing a renaissance as a source of guidance in the flood of information.

Furthermore, more and more people are rejecting material status symbols such as luxury cars or designer clothes as a reaction against the primacy of appearances and are turning to values such as integrity, honesty and sustainability. Products that are based on authenticity, functionality and ecologic value are experiencing increasing demand. The

growing support for non-profit organizations that fight for a 'good cause' is symbolic of a return to an idealistic and meaningful way of life.

Yet, even concepts such as sustainability can often only be made palatable to the public at large if they are suitably 'packaged' and convey an appealing image.

The dilemma creates opportunities: Appearance needs reality

The primacy of form is as much an illusion as that of content. Products that only focus on appearance at the expense of quality are often not successful in the long term. At the same time those that lack an attractive design often do not sell well. Only if form and content match can we judge the quality of a product by examining its outward appearance. On the one hand the combination of form and content helps us to comprehend multifaceted phenomena by means of clear structures; on the other hand, an attractive form allows us to better understand even highly complex content. Contemporary art is pioneering the trend towards the dissolution of the artificial division between form and content, envisaging possible ways of redefining product marketing and knowledge transfer. The status of consumer goods also has to be increasingly defined via values such as ethics and sustainability, and commitment to a 'good cause' earns more laurels than individualism. In future luxury cars will be carbon-neutral, mobile phones will gain added value through fair product guidelines and haute couture will be manufactured from decomposable materials. Scientists should package their research results more in attractive language and designs to reach a larger audience. And even politics faces the demanding task of making complex states of affairs comprehensible and attractive to voters.

The trend dilemma: Complexity vs. Simplicity

Complexity

Digital connections between people and markets and developments in science and technology cover the globe with an increasingly dense network of stimuli. Progress encourages innovation, improves living standards and creates affluence, but also leads to increased complexity and makes even the simplest everyday decisions into time-consuming and complicated processes. The growing complexity of the sciences and the difficulty of conveying the models they are based on increasingly undermine the rationale of science itself of explaining the world around us. The complexity of business relationships more often than not is beyond the comprehension of individual decision makers. The insight that everything is interconnected may encourage holistic thinking, but the world continues to become a *terra incognita*. The lack of transparency of complex systems heightens the

danger of overlooking risks – an apparently objective view of the world increasingly turns out to be subjects. Thus, in line with this complexity, there is also growing insecurity and a desire for clear answers.

Simplicity

The striving for simplicity is one of humanity's basic strategies. Complex matters have to be simplified in order to be able to make decisions. From an evolutionary perspective, achieving aims with less effort than others is a way of increasing one's chances of survival. By selectively perceiving the world, for example, the brain ensures that not all information is processed, and emotions allow us to ignore unimportant stimuli in difficult situations and to react swiftly. The growing complexity of life strengthens the desire for simplicity, control and order. This has led to booming markets for convenience products and has made online search engines into the most important sources of orientation in the modern world. In politics support is growing for populist parties that simplify a complex world. Yet, reducing complexity always means ignoring key aspects of a problem

The dilemma creates opportunities: Deliberate Subjectivity

The more complex the world is, the greater is the desire for simplicity – be it in the form of populist election propaganda, convenience products, headlines or ranking lists. Yet simplistic promises can often only be fulfilled in the short term or not at all. Political slogans do not provide any real solutions to complex challenges twitter posts do not create transparency and personalized search engine results only reinforce what we already know. By preselecting data that is purportedly tailored to the user's needs, they provide people not with better and more objective information but lower-quality and more subjective results. There is a growing realization that tools that promise more simplicity and clarity often only supply pseudo-objectivity. Faith in objectivity – the ideal of the knowledge society – is beginning to crumble. As a result, human instincts and emotions are playing a more central role in the search for 'intelligent' filters. Subjectivity, which has fallen into disrepute in an apparently rational age, is being rehabilitated. In the foreseeable future science will remain unable to find models to describe complex systems such as humans, ecosystems or financial markets, thus leaving us no alternative but to accept this state of affairs and to humbly recognize that everything is subjective.

Question

Analyse a dilemma between a trend and a counter-trend that you observe in your industry or in an industry you know. Maybe you find it helpful to take one of the pairs discussed

above. Discuss how this dilemma will change your industry. How does this change the product offerings in your industry? How does this change the processes in your industry? How does this affect the norms in your industry? Or does this not change the industry at all as the actors cannot decide between two equally attractive opportunities presented by the trends? (This may remind you of Buridan's ass or Aristotle's dogs – both starve to death because they cannot decide between two equally attractive heaps of hay – in the case of the ass – and bones – in the case of the dog.)

Develop ideas how you can make use of both developments, how you can bridge the dilemma.

References

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Social Entrepreneurship

Overview

The target of the course is to give students an overview of the term “social entrepreneurship” and the differences and characteristics between social entrepreneurship and commercial entrepreneurship. Finally, this module will be supplemented by further literature.

Entrepreneurial Competences

- Vision
- Ethical & Sustainable Thinking
- Mobilizing Resources
- Financial & Economic Literacy
- Mobilizing Others
- Working with Others

Learning Outcomes

Once completed this module the students know the characteristics of social entrepreneurship and are aware of the differences between social entrepreneurship and commercial entrepreneurship.

Prerequisites

Please have a look on the Module about the Business Model Canvas.

Preparation of the Teacher

The teacher should be familiar with the topic of social entrepreneurship and should use this knowledge to design the lecture and its contents.

To make the lecture more vivid and engaging, the teacher could bring in actual case studies dealing with social entrepreneurship and include interesting and helpful web links in the lecture. An overview of helpful web links including speeches of social entrepreneurs from

different fields as well as online lectures on social entrepreneurship can be found at the end of this chapter.

An up-front preparation of students before class with the literature indicated below and the subsequent discussion in class of what has been independently read/prepared at home, might also be a more varied option to structure the lecture (flipped classroom).

Involvement of External Actors

External actors can be easily involved in this module. We suggest inviting social entrepreneurs who speak about their experiences in the field of social entrepreneurship. These external experts can give helpful input and make the topic of social entrepreneurship more tangible for the students.

Time

0.5 ECTS to 1.5 ECTS.

Assessment

Students discuss with lecturers and external experts on the difference between commercial and social entrepreneurship. Furthermore, students should elaborate a presentation on a social entrepreneurship company and discuss their findings within the classroom.

Content

The term of social entrepreneurship and its differences to commercial entrepreneurship

Before speaking about social entrepreneurship, we should keep in mind the meaning of the term “entrepreneurship”. Entrepreneurship comprises the identification, evaluation, and exploitation of opportunities (Shane & Venkataraman, 2000, p. 218). Individuals or organizations use opportunities to create new products or services which can be sold at prices higher than the costs of production. This definition of the general term of entrepreneurship implicates that the underlying aim of entrepreneurial activities comprises profit generation that enables entrepreneurs to create prosperity (Certo & Miller, 2008, p. 267).

Social entrepreneurship is a sub-discipline within the field of entrepreneurship as this kind of entrepreneurship “involves the recognition, evaluation, and exploitation of opportunities that result in social value - the basic and long-standing needs of society - as opposed to personal or shareholder wealth” (Certo & Miller, 2008, p. 267). In other words, social entrepreneurship is characterized by an entrepreneurial activity with a social purpose (Martin & Osberg, 2007).

Social entrepreneurs aim to create value for the society, for marginalized groups, for the environment etc. rather than generate profit. Social entrepreneurship wants to fulfil “basic and long-standing needs such as providing food, water, shelter, education, and medical services to those members of society who are in need” (Certo & Miller, 2008, p. 267).

While, in general, the main goal of commercial entrepreneurs is to satisfy customers’ needs, to expand their business and growth, to earn revenue, and to satisfy the shareholders, social entrepreneurs are more focused on having a social mission and creating social value.

The difference between commercial and social entrepreneurship is also evident regarding the performance measurement. Commercial entrepreneurship typically measures performance in terms of financial performance such as return on assets, return on equity etc. (Austin et al., 2006). Financial performance metrics are standardized, so they are comprehensive and clear for entrepreneurs and investors. On the other hand, performance measures for social entrepreneurship are less standardized and thus less tangible (Certo & Miller, 2008, p. 268).

The difference between commercial and social entrepreneurship is also evident when it comes to attract financial resources. Commercial entrepreneurs are still more attractive for business angels and venture capitalists than social entrepreneurs and have more and easier access to capital market to reach economic success (Certo & Miller, 2008, p. 269). The reason for this fact is rather easy, as investors and venture capitalists expect returns and profits from their investments. In contrast to commercial entrepreneurs, people who are active in social entrepreneurship often need the support of donors (Kachlami, 2016, p. 352). Therefore, social entrepreneurs are forced to find funding sources and investors with the main focus on creating social value as opposed to economic value.

A similar situation shows the topic of human resources. Commercial entrepreneurs can attract employees on the basis of financial rewards in form of salary, benefits, stock options, etc. (Certo & Miller, 2008, p. 269). In many cases, social entrepreneurs do not have these possibilities and often have to rely on volunteers and employees for which creating

social value is more important than economic profit. Therefore, being a social entrepreneur requires small steps, patience and a long-term and comprehensive view.

But the rise of social entrepreneurship is favoured when commercial entrepreneurship fails to meet social needs (Austin et. al., 2002, p.2). The commercial entrepreneurship's fail to meet social needs can be an opportunity for social entrepreneurs and can raise their importance and standing.

However, the distinction between social and commercial entrepreneurship is sometimes less sharp. In some businesses there are elements of both (Austin et al., 2006, p. 3).

The entrepreneurs in-between

There are entrepreneurs that are close to both the business aspects and the social aspects of their enterprise. Such enterprises are characterized by a balance of social and economic acting "that creates both social and economic value" (Chell, 2007, p. 17). These entrepreneurs combine their social contribution with economic return.

Helpful literature and web links

Social entrepreneurship is a very complex topic. Within this chapter teachers are offered various options for their lectures on social entrepreneurship. The course can be conducted as an online course as well as a flipped classroom. If the course is conducted as an overview course, the amount of ECTS will consist of 0.5 ECTS. If the course will be offered as flipped classroom, the amount of ECTS will consist of 1.5 ECTS.

To provide the best support, the course material includes readings, videos, and helpful web links, including also online lectures on social entrepreneurship.

A further literature list and web links are intended to take a closer look at the topic of social entrepreneurship and to gain a more detailed insight on the different aspects.

A helpful overview on definitions of "social entrepreneur", "social entrepreneurship", and "social entrepreneurship organization" can be found at Bacq & Janssen (2011), pp. 397-403:

Bacq, S., & Janssen, F. (2011). The multiple faces of social entrepreneurship: A review of definitional issues based on geographical and thematic criteria. *Entrepreneurship & Regional Development*, 23(5-6), 373-403.

The following articles give an overview on different aspects of social entrepreneurship:

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Helpful web links:

- The following link offers interesting speeches of social entrepreneurs from different fields: <https://www.ted.com/search?q=social+entrepreneurship>
- This link contains articles of *The Guardian* (British daily newspaper) related to social entrepreneurship from all over the world: <https://www.theguardian.com/sustainable-business/series/social-entrepreneurs>
- The following link leads to the Global Entrepreneurship Monitor, a leading report of entrepreneurship comprising the entrepreneurial behaviour and attitudes of individuals as well as the national context and how that impacts entrepreneurship. The Global Entrepreneurship Monitor started in 1999 and contains economy profiles from countries around the world: <http://www.gemconsortium.org/>
- The following two links show two lectures on social entrepreneurship (part 1 and part 2) held by Matt Nash from Duke University (North Carolina):

Social Entrepreneurship Part 1:

<https://www.coursera.org/learn/grand-challenges/lecture/FNfVK/social-entrepreneurship-part-1>

Social Entrepreneurship Part 2:

<https://www.coursera.org/learn/grand-challenges/lecture/HEIU0/social-entrepreneurship-part-2>

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Competence II – Resources

The following section draws out modules (tools) that support the entrepreneurial competence ‘Resources’ as captured in the EntreComp Framework by Bacigalupo, Kamylyis, Punie, and Van den Brande (2016).

This category and the presented modules hereafter, refer to the competences of self-awareness, self-efficacy, motivation and perseverance, mobilising resources, financial and economic literacy, and mobilising others.

It is essential that students learn to believe in themselves and in turn develop further. Hence, a steady reflection on needs and aspiration is important, as well as the assessment of individual strengths and weaknesses. Finally, believing in being able to influence and change the course of events will lead to success.

Another crucial factor is motivation. Students should be trained in staying focused and being determined to turn ideas into actions. They should be supported to not give up and to be resilient under pressure and failure.

Moreover, students should learn how to efficiently manage and allocate resources and in turn develop also financial and economic know how. The calculation of costs and managing finances is essential to turn ideas into value-creating activities.

Finally, collaborating with others is emphasized in order to gain needed support, whereby an effective communication and persuasion are needed, as well as negotiation and leadership skills (Bacigalupo et al., 2016).

References

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National System of Entrepreneurship

Overview

This module introduces the concept of the National System of Entrepreneurship. For participants in an entrepreneurship course it is important to see that there is a whole ecosystem of actors that are relevant for successful entrepreneurship activities. This module will introduce a systemic view on innovation and entrepreneurship and is designed to change the view of the participants from a linear to a more systemic idea of innovation and entrepreneurship. In particular it is important to understand the idea of the National System of Entrepreneurship to appreciate the involvement of external actors in most of the other modules in the Tool Kit.

Entrepreneurial Competences

- Mobilizing Resources
- Financial & Economic Literacy
- Mobilizing Others
- Working with Others

Learning Outcomes

After completing this module can discuss the role of different actors in the National System of Entrepreneurship, they can identify these actors in their national or regional system. The students also know that a systemic view on innovation and entrepreneurship provides them with a good heuristic to assess and understand the performance of the entrepreneurship ecosystem and its actors.

They know the most prominent contributors to the scientific discussion about National Systems of Entrepreneurship.

Prerequisites

Students should already have an idea about the characteristics of an entrepreneur. They should also see what the motivations for entrepreneurs are and what drives entrepreneurship on the individual level.

Preparation for the Teacher

This module can be thought of as a conceptual module particularly when the entrepreneurship courses are offered to management or economics students. It can be tailored to be a rather heavy reading course. You might enrich the material below with material that makes the module compatible to any other course in economics or management, particular courses such as economics and management of innovation.

This module can be used in an online, a blended or a presence setting.

Involvement of External Actors

External actors can be included in the discussion about the national system of entrepreneurship. Ask them about their role, their intention, their motivations and their strategies.

Time

0.5 ECTS.

Assessment

You can assign papers from the text below to students or groups of students and have the students summarize these papers. I find it important that students take the material and challenge it with what they know, what they observe and what they think. So, the summary might have to be complemented with a section where students apply their critical thinking skills to the paper they have read.

Content

Tasks for the Students: Learn About the National System of Entrepreneurship

This section uses 'you' to address students directly.

To help you understand and appreciate the ideas that are behind the notion of the National System of Entrepreneurship it is helpful to have an understanding of what the systemic notion of *innovation* is all about (see Acs, Audretsch, Lehmann, & Licht, 2016; Acs, Szerb, &

Autio, 2015). This is important as innovation is seen as the lifeblood of firms surviving in a competitive market economy (Baumol 2002).

Looking at firms and how they innovate you will certainly observe firms when searching for the origin of innovation, they tend to break away from a previously pursued purely internal orientation based on the belief that a single firm can possess all the resources required to transform an idea into economic success and rooted in the conviction that the most valuable source of innovation can only be found within the corporate walls. Firms are breaking away from this conviction as more clearly than ever they are recognizing that they have to draw on a wide range of external ideas, component technologies and complementary capabilities for the development and production of their products (e.g. Fagerberg, Mowery, & Nelson, 2005).

Currently we live in a rather dynamic and fragmented technological and economic landscape. Think about all the technological progress that has happened over the last decade or so (see here for a nice presentation with really illustrating charts: <https://ourworldindata.org/technological-progress/>). In this dynamic environment it is virtually impossible for any single firm to keep abreast of all relevant advances that could possibly present a valuable opportunity. And, you might agree that it is vital for firms, that want to come up with new products, new processes, new marketing activities, new organizations or that want to use new materials, it is crucial to know about the current state of the art in sciences and technology, about the latest trends in the target industry and in relevant other industries, and about the most recent changes in customer or consumer preferences. Hence, growth and competitiveness of firms has become contingent on the firm's ability to compose, establish and maintain external interfaces (Nicholls-Nixon & Woo, 2003) which help them to get hold of this important information. Competitiveness depends on firms' ability to choose the right mode of governance (Fey & Birkinshaw, 2005). And it strongly hinges on their skill to effectively link these external interfaces to internal knowledge accumulation and to capability development (Kogut & Zander, 1996).

The activities by which firms do this have recently been labelled 'open innovation practices' (Chesbrough, 2003). Innovations tend to originate from firms that are continuously able to identify and link codified and scientific knowledge with their particular market insight and their specialized, often tacit, problem-solving capabilities within and outside their value chain (Jensen et al., 2007; Danneels, 2002; Hargadon & Sutton, 1997; Katila, 2002; Katila & Ahuja, 2002). This interaction creates external networks for the firms with other actors such as customers, suppliers, universities, research organizations, even competitors with whom firms exchange knowledge and artefacts. These external networks maintained by individual

firms and the learning interfaces therein represent the micro-foundations for interactive learning and knowledge development embedded in a larger innovation system (Graf, 2010).

In the mid and late 1980s the attempt to make this increasingly interactive innovation behaviour equally accessible to academics and policy makers led to the introduction of the innovation system concept (Freeman, 1987, 1988; Lundvall, 1988, 1992; Nelson, 1988, 1993). Note here, that we are talking about the *innovation* system. It is a nice anecdote that Lundvall attributes the 'invention' of the innovation system concept to Freeman and Freeman attributes its 'invention' to Lundvall.

The development of this concept echoed both academics' and policy makers' growing dissatisfaction with the linear model of innovation (Sharif, 2006), which, at that time, had already been challenged by Kline and Rosenberg's (1986) chain-linked model. If you have never heard about the linear model of innovation before and if you are not familiar with the chain-linked model, then you might want to read Kline and Rosenberg's (1986) classic piece.

Additionally, the innovation system concept also reflected the emerging inspiration from Nelson and Winter's (1982) evolutionary theory of firms and markets. Put simply, Nelson and Winter showed in a computer simulation model that taking metaphors for evolutionary biology is helpful to describe and analyse the dynamics of change in a market economy.

The concept of the innovation system provided the basis for a more systemic view on the innovation process, as it emphasizes that innovation is an uncertain, disorderly, and complex process (Sharif, 2006), which usually depends on co-development of socio-economic arrangements, new markets, new organizational configurations, and historical conditions (Markard & Truffer, 2008).

Now this is really important: In general, a system comprises a set of components that serve a common end. An innovation system is composed of a multitude of interconnected heterogeneous actors, such as

- firms,
- universities,
- research institutes,
- funding organizations or
- policy making bodies
- etc.

These actors jointly and interactively create, accumulate, and disseminate knowledge, skills, and artefacts. They thereby contribute to the development, the diffusion, and the utilization

of innovations and new technologies (e.g. Freeman 1987; Lundvall 1992; Nelson 1993; Kuhlmann, 2001). Based on the demarcation between elements that constitute the system and elements that do not, the literature distinguishes between

- **national** systems of innovation (Lundvall, 1992; Nelson, 1993; Freeman, 1987),
- **sectoral** systems of innovation (Malerba, 2002),
- **technological** systems of innovation (Carlsson, 1995; Callon, 1992), and
- **regional** systems of innovation (Cooke, Gomez Uranga, & Etxebarria, 1997).

However, on the micro level this interaction neither suggests orchestrated activities of all actors in the innovation system to collectively achieve this overall objective, nor does it presuppose that all actors' activities are individually targeted towards the overall goal of the system. Rather, under certain conditions innovation is an emergent property resulting from multiple micro-level interactions. As a consequence, the innovation system derives its dynamics from the tension and conflict between different actors' motives, approaches, and goals creating the context for Schumpeterian competition on various levels of aggregation such as technologies, products, or firms.

Actors might not even share the same goals. And in cases where they do, they might pursue these goals with different means, producing a heterogeneous set of solutions from which the evolutionary processes in a market can select.

So, now to repeat: the innovation system comprises of a set of heterogeneous actors that contribute to the generation and diffusion of innovations. The idea of the system of entrepreneurship is to take the ideas of the innovation system to the level of the individual.

"A National System of Entrepreneurship is the dynamic, institutionally embedded interaction by individuals between entrepreneurial attitudes, abilities, and aspirations, which drives the allocation of resources through the creation and operation of new ventures."(Acs, Szerb, & Autio, 2015, p.17).

For understanding and analysing the entrepreneurship system it is helpful to investigate the three as they are mentioned in the above definition: attitude, ability and aspiration.

Questions

The aim of these questions is to guide you to an understanding of the system of entrepreneurship around you be it in your national or your regional economy.

1. Read the papers Acs, Szerb, & Autio (2014, 2015) to get an overview over the system of entrepreneurship. Note, the doi at the references below provide you a direct link to the page where the journal hosts the full text versions of the paper.
2. Then start collecting corporate and public actors, institutions, and individuals in your region that are relevant components in the system of entrepreneurship. Describe their role in the system. You might also investigate which one of the three A's are affected by the activities of each one of these elements.

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Reading about Entrepreneurship

Overview

This section suggests extensive reading about entrepreneurship.

Entrepreneurial Competences

- Valuing Ideas
- Ethical & Sustainable Thinking
- Self-Awareness & Self-Efficacy
- Motivation & Perseverance
- Financial & Economic Literacy

Learning Outcomes

After students have completed this module they have basic knowledge about entrepreneurship and entrepreneurship research. They can identify the most important theoretical foundations for thinking about entrepreneurship. They can relate these theories to real world phenomena in the context of entrepreneurship.

Prerequisites

No prerequisites are required.

Preparation for the Teacher

You might want to chop the bulk of reading into smaller pieces. If you want to implement a flipped classroom then invite enough external actors to the class.

Involvement of External Actors

Involvement of external actors is certainly possible. If the reading is split over a number of weeks and the reading is broken down into topically coherent pieces, then external actors

can be included in a flipped classroom setting. Students complete their reading before class and interview external actors from the entrepreneurship community based on what they read. They summarize the interviews then.

Time

The reading is extensive, so the overall workload will lie within the range of 1.5 to 3 ECTS. The overall working load can be cut down by providing more detailed instructions what to read. In this case certain focus has to be applied.

Assessment

If you implement a course that has a theoretical (reading about entrepreneurship) and a practical part (developing an entrepreneurial idea) then you can have a mid-term exam about the theory (the reading) and a final exam about the business plan.

Content

This section uses 'you' to address students directly.

Tasks for the Students: Reading, Reading, Reading

Learning about entrepreneurship will require a lot of reading. For an overview have a look at Dollinger (2008) which provides a good overview over the topic of entrepreneurship. For a more recent exposition about entrepreneurship please refer to Byers, Dorf, and Nelson (2014) or Blank (2013).

References

Dollinger, M. J. (2008). *Entrepreneurship: Strategies and resources (4th ed.)*. Lombard, Ill: Marsh.

Byers, T. H., Dorf, R. C., & Nelson, A. J. (2014). *Technology ventures: from idea to enterprise*. New York: Mc Graw Hill.

Blank, S. (2013). Why the Lean Start Up Changes Everything. *Harvard Business Review*, 91(5), 64. <http://doi.org/10.1109/Agile.2012.18>

Additional Readings

I strongly suggest that you search for additional reading about entrepreneurship. There is a plethora of pieces on entrepreneurship in the Harvard Business Review. Here are some suggestions. I am sure there is more.

Bugg-Levine, A., Kogut B., Kulatilaka N. (2012): A New Approach to Funding Social Enterprises. In: *Harvard Business Review*. <https://hbr.org/2012/01/a-new-approach-to-funding-social-enterprises>

Chakravorti, B. (2010): Finding Competitive Advantage in Adversity. In: *Harvard Business Review*. <https://hbr.org/2010/11/finding-competitive-advantage-in-adversity>

Garvin D., Levesque, L. (2006): Meeting The Challenge of Corporate Entrepreneurship. In: *Harvard Business Review*. <https://hbr.org/2006/10/meeting-the-challenge-of-corporate-entrepreneurship>

Ignatius, A. (2013): The New Rules of Entrepreneurship. In: *Harvard Business Review*. <https://hbr.org/2013/05/the-new-rules-of-entrepreneurship>

Mullins, J. (2013): Use Customer Cash to Finance Your Start-Up. In: *Harvard Business Review*. <https://hbr.org/2013/07/use-customer-cash-to-finance-your-start-up>

Roger L. Martin, Sally Osberg (2015): Two Keys to Sustainable Social Enterprise. In: *Harvard Business Review*. <https://hbr.org/2015/05/two-keys-to-sustainable-social-enterprise>

Sahlmann, W. (1997): How to write a great business plan. In: *Harvard Business Review*. <https://hbr.org/1997/07/how-to-write-a-great-business-plan>

Sawhney, M., Khosla, S. (2015): Where to Look for Insight. In: *Harvard Business Review*. <https://hbr.org/2014/11/where-to-look-for-insight>

Schramm, C. (2012): Expanding the Entrepreneur Class. In: *Harvard Business Review*. <https://hbr.org/2012/07/expanding-the-entrepreneur-class>

Thompson, J., MacMillan, I. (2010): Making Social Ventures Work. In: *Harvard Business Review*. <https://hbr.org/2010/09/making-social-ventures-work>

There is a series in at www.inc.com that is entirely devoted to start-up: www.inc.com/startup

The Wall Street Journal hosts a number of videos that highlight issues in the context of entrepreneurship. <http://www.wsj.com/video/browse/business/entrepreneurship>

The Stanford Business School Center for Entrepreneurial Studies provides interesting information about entrepreneurship research and abstracts of their most recent

publications: <https://www.gsb.stanford.edu/faculty-research/centers-initiatives/ces/research>

The Economist has a good collection of pieces on entrepreneurship.

<http://www.economist.com/news/business/21618816-instead-romanticising-entrepreneurs-people-should-understand-how-hard-their-lives-can>

<http://www.economist.com/whichmba/entrepreneurship-teaching-risk-taking>

If you want to stack up your vacation library with books that inspire entrepreneurship you should look at <https://www.forbes.com/sites/williamvanderbloemen/2016/06/05/the-ultimate-summer-reading-list-for-entrepreneurs/#2d9a681b68f9>.

Research

I. Entrepreneurship research in general

Cuervo, Rebeiro, and Roig (eds 2007) provide a comprehensive volume to introduce you to entrepreneurship research.

II. Special foci on entrepreneurship research

For insight into social entrepreneurship research you can turn to McKenny (2014) who offers an annotated bibliography about social entrepreneurship research. Granados, Hlupic, Coakes, and Mohamed (2011) provide a scientometric analysis of research on entrepreneurship from 1991 to 2010.

In case you are interested in gender and entrepreneurship then you might refer to Link and Strong (2016) who also provide an annotated bibliography with the special focus on gender and entrepreneurship.

References

Cuervo, A., Ribeiro, D., & Roig, S. (Eds.). (2007). *Entrepreneurship: Concepts, theory, and perspectives*. New York: Springer.

Granados, M. L., Hlupic, V., Coakes, E., & Mohamed, S. (2011). Social enterprise and social entrepreneurship research and theory: A bibliometric analysis. *Social Enterprise Journal*, 7(3), 198–218. <http://doi.org/10.1108/17508611111182368>

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<http://doi.org/10.1561/03000000068>

Character Traits of Entrepreneurs & Motivation

Overview

This module focusses on the character traits of entrepreneurs and on their motivation.

Entrepreneurial Competences

- Self-Awareness & Self-Efficacy
- Motivation & Perseverance
- Taking the Initiative
- Learning through Experience

Learning Outcomes

After having finished this module students:

- are able to name important character traits and motivations of entrepreneurs
- are able to identify those characteristics in case studies of entrepreneurs
- are able to discuss characteristics and motivations and
- are able to identify those characteristics in their own personality

Finally, students are able to see that it is not only immutable character traits that make entrepreneurs successful, but entrepreneurship needs skills and competencies that can be acquired and hence can be taught in an entrepreneurship course.

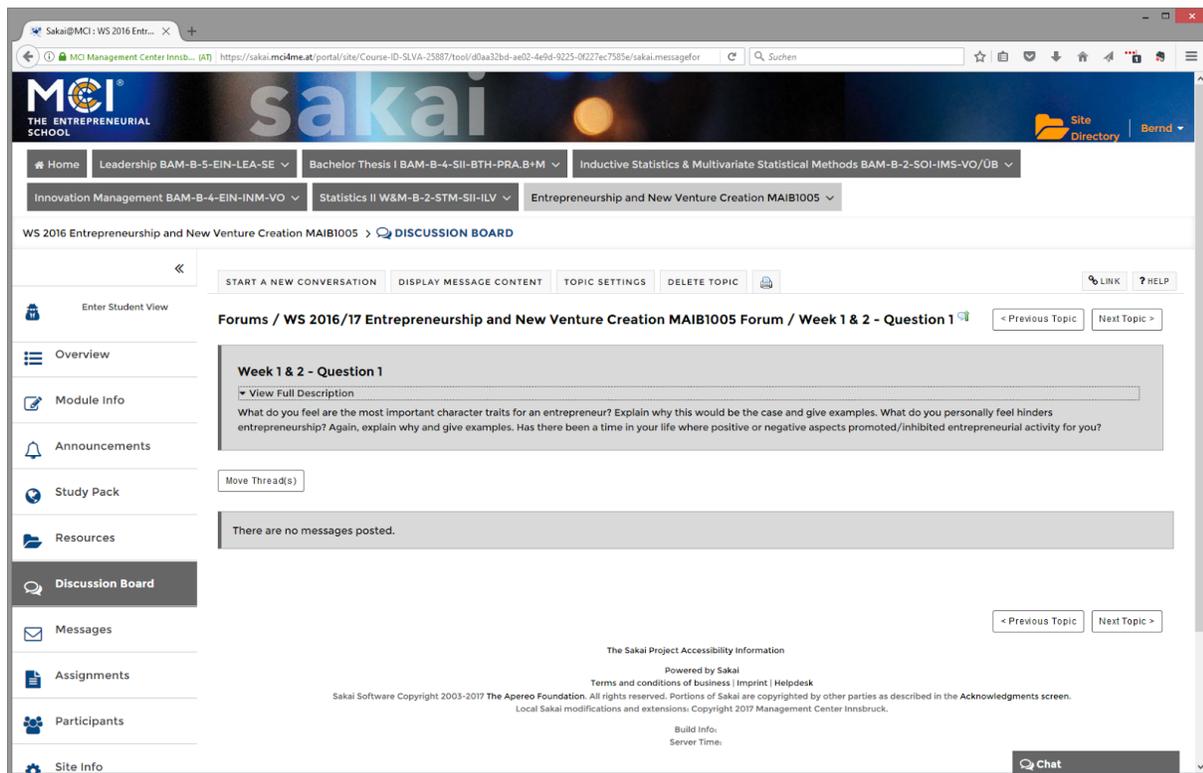
Prerequisites

This course needs some basic understanding of management and economics at the level of high school graduates.

Preparation for the Teacher

Online

Set up a discussion board online if you want to implement this module online.



Flipped Classroom

Set up the classroom in a way that facilitates the discussion among students. Assign students to smaller groups before class. Make the composition of the groups available to students.

Involvement of External Actors

External actors can be involved in this module. I suggest that you identify interesting entrepreneurs within your region or within your network. These entrepreneurs can contribute to the course by providing their take on the questions asked. These can be or will be most of the time very personal statements about what it takes to be an entrepreneur and what the motivations are to become one. The contribution can be included in the module in various ways: through a live Skype interview in the classroom,

through a webinar if the course is delivered online, through a brief testimonial or through providing provocative statements to kick off student discussion in a flipped classroom setting.

Time

0.5 ECTS.

Assessment

Online

If the module is implemented online, then each student's contribution to the discussion board or to the forum can be graded, where grading should consider quantity and quality of the contributions.

Flipped Classroom

A summary or reflection paper of each individual student or of the discussion groups can be used for grading.

Content

This section uses 'you' to address students directly

Tasks for the Students: Characteristics and Motivation of Entrepreneurs

Work through the 'Framework'-Section in the Study Pack. In particular note the tight interlinkages between innovation and entrepreneurship. Generally, we assume for the rest of the course that entrepreneurship closely relates to innovation. So, entrepreneurship is not about opening just another sausage stand. It is about the creation of an innovative economic organization.

Building an economic organization might not only mean that everybody belonging to this organization have to be in the same spot in geographical space. You can also imagine virtual organizations or distributed organizations. Two examples come to mind here. One comes to mind because its initiator – or better – its entrepreneur is from Innsbruck: Julian Mautner's Stillalive Studios (<http://stillalive-studios.com/>). The other comes to mind because the entrepreneurs write extensively about their experience (Fried & Heinemeier Hansson,

2010, 2013) and because it creates a software that you might have run into: Basecamp. I am thinking about 37signals here, which changed its name to become Basecamp (www.basecamp.com).

Try to find out about the pros and cons of a virtual or distributed organization.

Generally, we assume that entrepreneurship has a positive impact on economic growth and prosperity. The logic is simple: Entrepreneurship means the creation of new businesses. Those new businesses provide new jobs, rejuvenate the industry, deliver a better performance and productivity by leveraging technical change and innovation (Here again you see, why we concentrate on innovative entrepreneurship in this course). Cumulatively, this contributes to economic growth. Entrepreneurs are thought to rebuild capitalism (Reinventing the company, 2015).

For more information about this line of reasoning you can refer to Acs (2006) who also summarizes how entrepreneurship is measured through the Global Entrepreneurship Monitor (GEM).

However, depending on where the entrepreneurs come from there might be negative effects on the micro level as well. Think for instance about corporate spin-outs, where the entrepreneur was formerly an employee of the firm, who starts a business potentially in the same industry. In their introduction Campbell et al. (2012) highlight the potential negative effects of corporate spin-out.

When you read the psychological approach to entrepreneurship starting on page 51 in the Textbook (Dollinger, 2008) you might get the impression that those characteristics of an individual matter that we always suspected to be prevalent in a successful entrepreneur. However, you might read Bernstein (2015) and find that, if you look more closely, things are different. Additionally, in the text (Dollinger, 2008) you already find that risk-taking seems not to be a differentiating trait. This is sort of obvious: we can hardly conceive a gambler as an entrepreneur.

The following discussion will be carried out on discussion boards / forums online or in a flipped classroom setting in the classroom.

Question 1

What do you feel are the most important character traits for an entrepreneur? Explain why this would be the case and give examples. What do you personally feel hinders

entrepreneurship? Again, explain why and give examples. Has there been a time in your life where positive or negative aspects promoted/inhibited entrepreneurial activity for you?

Question 2

Explore which factor motivate entrepreneurs. Read one of the classics on entrepreneurship: Joseph Alois Schumpeter's (1911) *Theorie der wirtschaftlichen Entwicklung*, which was published in English language in 1934 – You should find what you are looking for on pages 90-95. You can also get a good overview of its relevance by studying the book review in Croitoru (2012).

Read also <http://www.wsj.com/articles/why-some-entrepreneurs-feel-fulfilled-but-others-dont-1432610236> and compare the motivations. Maybe we have to distinguish between the motivation of entrepreneurs (once in a lifetime) and the motivations of serial entrepreneurs. Self-competition can be an interesting concept that drives serial entrepreneurs. If you want to explore this further, you can optionally read Khalis (1997).

Discuss the motivation of people to choose entrepreneurship as a career path. Discuss which institutional factors in your economy support these motivations and which factors in your economy hamper these motivations. Try to assess whether this helps us to understand the international differences in the propensity to become an entrepreneur. For international comparisons you can use the OECD (2015).

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<http://www.economist.com/blogs/schumpeter/2014/02/our-schumpeter-columnist>

Resource Based View of the Firm

Overview

The module provides students with a theoretical background about entrepreneurship. It embraces the **Resource-Based View of a firm** which explains how resources can foster and create competitive advantage and lead to higher revenues and more success in turn.

The lecture is suggested to be split up in two parts. In the first part the lecturer will provide theoretical input on the resource-based view. In the second part students work in groups on a case study and present their results at the end. The involvement of external actors is possible in both parts.

Entrepreneurial Competences

- Mobilizing Resources
- Financial & Economic Literacy
- Mobilizing Others
- Learning Through Experience

Learning Outcomes

This module contributes to the students' understanding of theoretical concepts and models of entrepreneurship and the successful utilization of key resources in order to build up a competitive advantage.

It fosters students' consideration about different strategic views whereby they understand the reasons why some companies are more successful than others.

Students learn how to recognize key resources and competences and how they can be used to design and shape the organization towards success. Referring to the resource-based view, students' will be able to explain and understand how an organization can use and combine its resources and competencies in order to build up a competitive advantage and to eventually increase revenues.

Prerequisites

No prior knowledge required.

Preparation of the Teacher

The teacher should be familiar with the resource-based view of a firm and should also maintain currency with the advancements in the field, e.g. newly published papers etc.

The teacher should use this knowledge to design the lecture and the contents. It is recommended to develop a kind of script for students to work with, or alternatively a proper textbook should be selected which serves as reading for students (please see section 'Readings' to get an idea about suitable sources).

The first part of the lecture should provide theoretical background about the resource-based view and can be designed as classical frontal class. The teacher should however, be free to adapt and extend the lecture/class with creative elements (videos, articles, discussions, etc.) at any point.

The second part has the aim to make the topic more tangible and integrates a **case study**. The introduction of case studies is a very efficient method and therefore highly recommended at this point in order to transfer knowledge and theory successfully. Case studies should show how companies implement the resource-based view and how they use key resources to build up competitive advantages from a practical point of view by means of a real-world example. The case study should include tasks and exercises for students to elaborate and discuss on. Results and outcomes are presented afterwards in class.

Involvement of External Actors

External actors could bring further insights about the resource-based view and its implementation in practice, and share experiences with students during class discussion.

External actors could also be included in the second part of the lecture and invited to introduce a case study with some exercise for the students to elaborate on, which are discussed afterwards in plenum. Such a kind of involvement will enforce authenticity and increases thus the learning effect.

Time

Approximately an amount of 10-12 hours of time should be envisaged, as well as a workload of 0.5 ECTS.

Assessment

A Written Exam is recommended

Students should report what they have learned during class, in a written form. They have to learn the content presented and should know definitions, elements, details, etc. about the Resource-Based View of a Firm. Furthermore, they should be able to connect the theoretical concept to the activities of an entrepreneur. The use of open questions is recommended, in order to reassure sufficient reflection.

Final Presentation and the results of the case study

Students should elaborate on the case study in groups and should present their result in front of the class. Teachers should evaluate the presentations' structure (20%), format (10%), and especially the contents and outcomes (70%).

Content

Key resources are significant for the success of an organization, as several studies have shown. If organizations concentrate on their key resources and on what they do best, efficiency and effectiveness raise. Moreover, through the use of those unique resources (competences and skills) of the organization, innovation can unfold which in turn increases success.

As a consequence, the resource-based view of the firm developed. The resource-based view of the firm sees the competences and skills of an organization as the starting point for strategy and strategy development. The resource-based view was first introduced by Wernerfelt (1984) who claimed that also the strategic resources of an organization are sources of profit and success, and not as previously thought only the market and the sector circumstances (Porter, 1981).

Afterwards, Barney (1991) identified four necessary characteristics of resources to be able to create and foster competitive advantage:

- Resources must be precious

- Resources must be rare
- Resources must not be imitable
- Resources must not be substitutable

When an organization possesses resources with all four characteristics it can be termed as monopolist. The organization possesses resources which are rare, not imitable by competitors and create an added value for the customer.

Bailom, Matzler & Teschemernjak (2013) introduce 5 steps how to successfully implement the resource-based view in an organization:

1. Identification of the organizational strengths and weaknesses.
2. Determination of key resources (level of uniqueness and chances to build competitive advantages).
3. Selection of attractive markets to enter where the competitive advantage can be realized.
4. Development and implementation of strategies in those markets, building on the key resources identified.

Distinctive competencies or key resources shape in turn the strategy of the organization which leads to competitive advantage and superior profitability. The relationship between key resources and strategy is however indeed reciprocal, as not only distinctive competencies shape strategy, but also strategies foster the creation of competences. Hence, an adopted strategy can strengthen the existing competences, but even build up new key resources (Jones & Hill, 2013).

Johnson, Scholes & Whittington (2011) differentiate between unique resources and key competences and define them as follows.

UNIQUE RESOURCES: those resources are crucial for building up competitive advantages. They can neither be easily accessed nor imitated by competitors.

KEY COMPETENCES: skills and capabilities which make resources usable so that a competitive advantage can be established which cannot be imitated or easily reached.

Hence, the resource-based view (key resources – tangible/intangible) can be extend to the competence-based view (skills, competences in different fields), to the knowledge-based view (knowledge) and finally to the relational view (networks, relationships). If the organization succeeds to combine all four approaches, imitation becomes nearly impossible for competitors.

Case Study/Exercise

Walmart Analysis by Perez-Montesa (2012) as Case Study

⇒ <https://www.slideshare.net/lpmontesa/walmart-analysis>

Clicking on the link, slides open which show a strategic analysis of Walmart. First of all, the company is introduced with its history, backgrounds culture etc. Afterwards, an analysis from different perspectives is conducted.

The teacher should provide students with all the backgrounds of the firm (first slides, p.1-13). Afterwards, students should be able to do an analysis of the firm resources and to classify them regarding value, rareness, imitability, substitutability, so that they are finally able to determine if the analysed resource can be categorized as key resource which foster and build competitive advantages or not.



Resource - Based View Of The Firm

Competency	Valuable	Rare	Difficult to imitate	Difficult to substitute	Conclusion
Integrated technology of supply chain	Yes	Yes	Yes	Yes	Sustainable Compt. adv
Ability to generate large sales volume	Yes	No	No	Yes	Comp. Parity
Superior logistics system	Yes	Yes	Yes	Yes	Sustainable comp. adv
Operation decentralization	Yes	Yes	Yes	No	Temp. comp. adv
Strong culture	Yes	Yes	Yes	Yes	Sustainable comp. adv
Human resources (management team and employee autonomy)	Yes	Yes	Yes	No	Temp. comp. adv

Example Table for Editing Results (Perez-Montesa, 2012, p.14).

Example 3.1 Strategic Skills by Johnson, Scholes & Whittington (2011, p.133-135) as Exercise

The example is again about classifying resources, containing control questions for students, and can be adopted by the teacher in the same way.

The same questions might be also used in combination with other case studies.

PAPSTAR Group Example by Bailom, Matzler & Teschemernjak (2013, p.136-139) as Case Study

The example delivers insights about the background of the firm and analyses where key resources and competences lie. The example can be used as case study in a similar manner as in point 1., where students have to elaborate and find out which resources can be determined as unique and build the basis for competitive advantage.

Suitable Case Studies might also be available on the following websites:

- MarketLine - (<https://advantage.marketline.com/Home>) (free)
- Case Centre – (<http://www.thecasecentre.org/main/>) (registration)
- Harvard Business Review Blog – <https://hbr.org> (partly free)
- Harvard Business Manager - (<http://www.harvardbusinessmanager.de/> - German) (partly free)

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Porter, M. E. (1981). The contributions of industrial organization to strategic management. *Academy of Management Review*, 6(4), 609-620.

Additionally, you will be able to explore which intellectual heritage Porter's five forces build on. A nice interview with Michael E. Porter can be found at https://www.youtube.com/watch?v=mYF2_FBCvXw

Further Readings

Barney, J. B. (2001). Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view. *Journal of Management*, 27(6), 643-650.

Please also read Conner (1991). Although Connor (1991) is a quite dated publication you will get a different view on the RBV.

Conner, K. R. (1991). A historical comparison of resource-based theory and five schools of thought within industrial organization economics: do we have a new theory of the firm? *Journal of Management*, 17(1), 121-154.

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Organizational Ecology

Overview

The module provides students with a theoretical background about entrepreneurship. It embraces the Organizational Ecology Theory which deals with the survival, growth and mortality of organizations.

Lecture/classes are suggested to be designed as traditional frontal lectures/classes, including elements of class and group discussion. The involvement of external actors is preferable.

Entrepreneurial Competences

- Mobilizing Resources
- Financial & Economic Literacy
- Mobilizing Others
- Coping with Uncertainty, Ambiguity & Risk
- Learning through Experience

Learning Outcomes

This module contributes to students' understanding of theoretical concepts and models of entrepreneurship and the successful survival of an organization. It fosters students' consideration about different live stages of an organization and the vulnerability of companies when they transfer from one to another stage. Referring to the Organizational Ecology Theory, students' will be able to explain and understand why some companies survive while others die.

Prerequisites

No prior knowledge is required.

Preparation of the Teacher

The teacher should be familiar with the theory of Organizational Ecology and should also maintain currency with the advancements in the field, e.g. newly published papers etc.

The teacher should use this knowledge to design the lecture and its contents. The development of a script for students is advisable and/or the reference to a proper textbook, e.g. Hannan, M. T., & Freeman, J. (1993). *Organizational ecology*. Harvard University Press.

To make the lecture more vivid and engaging, the teacher could bring in actual cases of firm survival or firm death and discuss them in class (e.g. with the support of a practitioner/entrepreneur). The teacher should be also free to adapt and extend the frontal lecture with creative elements (videos, articles, discussions, etc.) at any point in time.

An up-front preparation of students before class with the literature indicated below and the subsequent discussion in class of what has been independently read/prepared at home, might be a more varied option to structure the lecture (flipped classroom).

Involvement of External Actors

As the topic is rather technical, it would be especially valuable to include an external actor in order to describe the issue from a practical point of view. Such external actors are suggested to be business man and entrepreneurs from large companies, as well as from start-ups. They could bring further insights as well as share practical and personal experiences with students during class discussions.

Time

Transferring the ideas of the Organizational Ecology Theory to students will take some time. For a combination of frontal lectures/classes and subsequent discussion rounds, approximately an amount of 10 to 12 hours of time should be envisaged, as well as a workload of 0.5 ECTS.

Assessment

A written exam is recommended. Students should report what they have learned during class in a written form. They have to learn the content presented and should know definitions, elements, details, etc. about the Organizational Ecology Theory. Furthermore, they should be able to connect the theoretical concept to the activities of an entrepreneur

in different organizational stages. Teachers are free to design open, as well as closed question, or a combination of both.

Content

Over the years researchers have investigated a lot into the phenomenon of 'organizational survive' in order to explain why some organizations survive while others die. Especially young companies and organizations are often observed to fail on the market and to die.

The **Organizational Ecology Theory** helps to explain and understand how organizations change and develop over time, and why some of them have to leave the market while others sustain (Hannan & Freeman 1977, 1989).

The Organizational Ecology Theory addressed five areas of organizational change and development:

- I. Variety of organizational forms that exist
- II. Distribution of organizations in differing environments
- III. The influence of the environment on organizations
- IV. The rate of change of organizations
- V. The creation of organizational characteristics (Hannan & Freeman, 1989)

Furthermore, researchers found out that there are at least five reasons which determine the survival of an organization:

I. Age

New organizations suffer from the "liability of newness", having limited resources, and having still to learn and establish the organization to be successful (routines, patterns etc.).

Older organizations instead suffer from the "liability of adolescence" as failure rate increases after a successful initial phase and with their age; as well as from the "liability of obsolescence" where inertia enters and the alignment to the environment becomes challenging (Baum, 1999; Ingram, 1993; Barron, West, & Hannan, 1994).

II. Size

Smaller organizations can suffer from the “liability of smallness”. For small organizations it is more difficult to raise resources and capital, as well as to cover costs, compared to large and established organizations (Aldrich & Auster, 1986).

III. Strategy

Organizations which use a wide range of resources and reach beyond their typical market segment (generalists) tend to live longer, compared to organizations which survive within a limited range of resources (specialists) (Hannan & Freeman, 1977).

IV. Relational density

Relational density relates to the number of organizations in a population and the legitimation of organizational forms within a population. If legitimacy grows, the population of organizations increases. Consequently, more new organizations form, and failures decrease. In a second step however, also competition increases which in turn makes it also more difficult for organizations to survive (Hannan & Freeman, 1987, 1988).

V. Linkages

Close relationships and collaborations with well-established institutions are an advantage for every organization and foster their survival (Baum & Oliver, 1991).

Organizations follow a **growth process of five stages**, from small to large:

- I. Creativity Stage
- II. Direction Stage
- III. Delegation Stage
- IV. Coordination Stage
- V. Collaboration Stage (Geiner, 1972; Strauss, 1974)

When organizations go from one to another stage and are ‘in transition’, they are especially vulnerable which increases failure, as the organization is exposed again to “liabilities of newness” (Hannan & Freeman, 1984).

Hence, organizations go through different stages from the founding of the company and its growth to its transformation and the decline of the organization which leads finally to its death. Newly founded and small organizations are especially vulnerable. However, also

large companies may struggle to survive if they develop too many new products, enter too many new markets and are too quickly for the environment to support.

Thus, it is essential to be aware of the current growth stage of your organization and to know the potential dangers. It is important that entrepreneurs expect crises, can cope with them in order to meet obstacles and to grow strong and to establish a stable and mature organization which can survive.

Finally, every entrepreneur should know the risk of being small and new on the market and foresee the challenges resulting from this initial stage. In this initial stage it is therefore especially important to focus on the organizational structure which should be strengthened, as it is often the reason why new companies fail.

On the other hand, entrepreneurs should also not forget about the advantages which new and small ventures are characterized by. Compared to large and established organizations, they do not suffer from inertia and are not locked on the path dependence way as they are still willing and flexible enough to change and adapt.

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Crowdfunding

Preliminary Note

Some parts of this chapter on crowdfunding were created during the FIDIAS project (www.fidias.eu) funded by the Alpine Space Program of the European Union.

The present chapter contains a revised and adapted overview on the main issues of crowdfunding.

Overview

Target of the course is to give students an overview on the topic of crowdfunding, so they are aware of the characteristics of this relatively new financial instrument.

Entrepreneurial Competences

- Self-Awareness & Self-Efficacy
- Motivation & Perseverance
- Mobilizing Resources
- Financial & Economic Literacy
- Mobilizing Others
- Taking the Initiative
- Planning & Management
- Coping with Uncertainty, Ambiguity & Risk
- Working with Others
- Learning through Experience

Learning Outcomes

After students have completed this module they have basic knowledge about crowdfunding and are aware of the definition and origins of crowdfunding. They know the different forms of crowdfunding and are able to identify the elements and the process of a crowdfunding

campaign. At the end of this module, students will be aware of how to use it as a financial instrument.

Prerequisites

No prior knowledge is required.

Preparation of the Teacher

The teacher should be familiar with the topic of crowdfunding and should use this knowledge to design the lecture and its contents.

To make the lecture more vivid and engaging, the teacher should prepare some examples and case studies of successful crowdfunding campaigns to bring the topic closer to the students and to make it more tangible. An overview on crowdfunding platform and helpful weblinks can be found at the end of this chapter.

An up-front preparation of students before class with the literature indicated below and the subsequent discussion in class of what has been independently read/prepared at home, might also be a more varied option to structure the lecture (flipped classroom).

Involvement of External Actors

External actors can be involved in this module by inviting some founders of start-ups who speak about their experiences of using the instrument of crowdfunding for their enterprise.

Time

0.5 ECTS.

Assessment

Students discuss with lectures and external experts about the pros and cons of crowdfunding. Furthermore, students develop a crowdfunding campaign for an imaginary company and present their concept in front of the classroom.

Content

In recent years, a new form of financing has evolved on the horizon of young enterprises: Crowdfunding describes a form of micro-financing where money is generated from a large number of people (“the crowd”) via the internet (Hemer, 2011, p. 2). Today, one major characteristic is its internet basis. However, the phenomenon of crowdfunding existed before the term was coined: already Mozart and Beethoven used to fund their performances and musical works through pre-subscriptions (Röthler & Wenzlaff, 2011, p. 10).

Crowdfunding is being intensively discussed all over the world and the sometimes the opinions go apart. On the one hand, crowdfunding is seen as the long-awaited revolutionary for enterprises who struggle with getting access to financial resources. On the other hand, crowdfunding is still a relatively new financial instrument for the general public and experts are not sure to which extent crowdfunding can be a viable alternative to traditional financing methods such as business angel investments, venture capital, or bank loans.

This chapter provides an overview of the topic of crowdfunding and tries to make crowdfunding more tangible for students.

A business or company, whether it is established for years or whether it is a start-up, stands or falls with the quality and structure of its financing. According to Volkmann et al. (2010, p. 284) financing involves efforts to procure capital and to optimize the capital structure by efficiently using the available financing alternatives to build a capital foundation for future investments.

Historic examples such as the dot-com bubble around the turn of the century have shown that miscalculations and speculations concerning the capital endowment of companies can have risky consequences (Volkmann et. al., 2010, p. 283). Start-ups and SMEs have to detect and react to potential menaces such as “financing crises and liquidity bottlenecks” (Volkmann et. al., 2010, p. 283) as soon as they appear on the horizon. In order to be able to react appropriately, SMEs and start-ups need an understanding of the financing alternatives and instruments as well as their functionality. It is essential for SMEs and start-ups to align their financing strategy with the company’s particular features and goals already from the very beginning on (Volkmann et. al., 2010, p. 283), not least because crowdfunding cannot be the sole financial pillar but rather needs to be integrated and aligned with other financial instruments.

In the following table we illustrate how financing alternatives are classified.

Classification of Financing Alternatives:

Criterion	Forms
Occasion for financing	Start-up financing Growth financing Take-over financing Reorganization of finances (debt adjustment)
Origin of resources	External vs. internal financing
Legal position of capital providers	Equity vs. debt-financing
Time pattern (terms)	Open-ended financing Time-limited financing <ul style="list-style-type: none"> • Short-term: up to 1 year • Medium-term: 1 to 4 or 5 years • Long-term: over 4 or 5 years
Frequency of financing acts	One-off, occasional financing Continuous, regular financing

Source: Volkmann et al., 2010, p. 284.

Most often, however, the systematization is made based on the origins of resources and the legal position of the capital providers (Volkmann et al., 2010, p. 285). Both external and internal financing can be made in form of debt or equity (Horsch, Paul, & Rudolph, 2011, p. 389).

SMEs pass through several phases during their evolution from a start-up to their liquidation (Berger & Udell, 1998, p. 622; Volkmann et. al., 2010, p. 292).

The cycle is typically characterized by an increase in

- (a) firm size and age,
- (b) revenues and profits,
- (c) available information, and
- (d) capital requirements or investment amounts.

Simultaneously, the overall risk and uncertainty surrounding the enterprise decrease over time. Depending on the respective growth phase an enterprise finds itself in, various financial requirements and opportunities arising (Berger & Udell, 1998, p. 622). Literature distinguishes three main stages consisting of multiple phases, each lasting several years: the early stage, the expansion stage, and the late stage. However, the cycle phases only show the theoretical development and ideal growth of enterprises. In practice, the firm's characteristics, background, as well as business environment influence the duration of single phases (Volkmann et al., 2010, p. 292). Therefore, the indicated length of phases and the financing alternatives are not definite but rather indicate tendencies and serve to provide the reader with a general overview (Berger & Udell, 1998, p. 622).

The above-mentioned reasons indicate that action has to be taken in order to secure the existence of SMEs and hence, ensure economic development and stability. Increased pressure to invest as well as the increasingly restrictive funding politics call for the necessity of new and innovative solutions to provide SMEs with access to finance. In recent years, crowdfunding arose as novel form of financing for SMEs and start-ups. It relates to the process through which a company raises money to finance a project and/or its business by asking the broader public to contribute small amounts that aggregate to a large sum in the end instead of approaching a small number of large investors (Ahlers et. al., 2012, p. 1; e.g., Belleflamme et al., 2013, pp. 2, 4; De Buysere et al., 2012, p. 6; Mollick, 2013, p. 2). As a form of early-stage financing, crowdfunding can help reduce initial hurdles and facilitates the raising of capital. SMEs benefit in so far as they are enabled to present their innovative idea to a large group of people without the necessity for references or equity. Nevertheless, crowdfunding is only one puzzle piece in the jungle of financing and its risks should not be neglected. On the following pages we will give an overview on the topic of crowdfunding starting with a definition, followed by different forms of crowdfunding, and leading to challenges of this form of financing.

Definition and origins of crowdfunding

Crowdfunding is the process through which a company raises money to finance a project and/or its business by asking the broader public to contribute small amounts that aggregate to a large sum in the end instead of approaching a small number of large investors (Ahlers et. al., 2012, p. 1; e.g., Belleflamme et. al., pp. 2, 4; De Buysere et. al., 2012, p. 6; Mollick, 2013, p. 2). This public invitation to the crowd is non-restrictive, that is, nobody can be excluded from participating, and it is usually placed via online platforms or social networks, hence eliminating financial intermediaries. Moreover, crowdfunding is based on self-selection, which means that a large group of individuals that has faith in the company's idea, such as investors, donors, or sympathizers, is able to voluntarily support the project and/or the business by self-selecting to become a funder (Belleflamme et al., 2013, p. 3). The capital is provided in exchange for a monetary or non-monetary return in all forms of crowdfunding (e.g., Belleflamme et al., 2013, p. 4).

The idea of crowdfunding stems from the conception of crowdsourcing. Crowdsourcing is a way to generate ideas, feedback, and solutions from a large group of people from the company's external environment (Belleflamme et al., 2013, p. 4; Poetz & Schreier, 2012, p. 245). As Howe states in his article, crowdsourcing reveals "the latent talent of the crowd" (Howe, 2006b) at a far lower price compared to existing employees (Kleemann, Voß, & Rieder, 2008, p. 6). In a business context, crowdsourcing happens when companies deploy the general public via the internet to voluntarily perform specific key tasks that were formerly executed by the company itself in order to make or sell a particular product or service (Kleemann et al., 2008, p. 6). By doing so, the company reaches out to distributed high performers and non-experts (consumers), and produces added value by benefiting from their distributed specialized knowledge, creativity, expertise, time, as well as resources (Bayus, 2013, pp. 226–227; Kleemann et al., 2008, p. 6). Poetz and Schreier (2012) compared user-generated ideas with those developed by an enterprise's professionals. Their findings indicate that user-generated ideas perform significantly better "in terms of novelty and customer benefit" (Poetz & Schreier, 2012, p. 253) and that feasibility is not an obstacle either, thus proving crowdsourcing to be a useful method for idea formation.

The three actors in crowdfunding are entrepreneurs, investors, and platforms. While the entrepreneurs seek to get funded and investors seek investment opportunities, platforms act as an intermediary between the above-mentioned parties and provide the tool for setting an agreement as well as for completing the necessary transactions involved. This particularly includes the legal foundation, the pre-selection of appropriate entrepreneurs, as well as the infrastructure and processes to arrange the financial transactions (Ahlers et

al., 2012, p. 1). What has to be taken into account is that crowdfunding also and maybe predominantly attracts small investors, that is, people who do not dispose of professional business background or investment know-how as would a business angel, venture capitalist, or bank (Ahlers et al., 2012, p. 1). Instead, crowdfunding enables the ordinary citizen to step into the world of investment even with small capital amounts.

The rise of crowdfunding as an alternative financial instrument is related to a new type of consumer that is increasingly surfacing, actively engages in creating value with and for companies by voluntarily providing his manpower (Cova & Dalli, 2009, p. 316). Consumers are desisting from solely passively consuming products or services and instead gear towards an active participation in earlier stages of the supply chain, that is, in production and service delivery; they buy what they are emotionally attached to (Kleemann et al., 2008, p. 7; Voß & Rieder, 2005, p. 16). The working consumer has arisen out of various trends, such as (a) the focus on consumer experience, (b) the rise of co-production and collaborative approaches, as well as (c) a service-dominant business environment, which overall imply a stronger customer focus and empowerment (Cova & Dalli, 2009, p. 318). Further drivers can be found in the technological evolution, digitalization, online communities, and Web 2.0 movement, all of which bring the world closer together by facilitating two-way communication through intelligent applications and social media platforms (Kleemann et al., 2008, pp. 10–11). Thus, a great array of content can be created and shared in the twinkling of an eye, as for example pictures, blogs, videos, or messages (Kleemann et al., 2008, p. 10). Likewise, many people can be reached in very low time. Crowdsourcing integrates users in the most unequivocal way and creates value from the direct appropriation of consumer work (Kleemann et al., 2008, p. 19). Likewise, crowdfunding benefits from the financial resources of the general public. Overall, the crowd gets more and more engaged, connected, and linked to corporations and their activities (Belleflamme et al., 2013, p. 2). But despite the influence of the internet on the development of crowdfunding, it is different from open sourcing. In crowdfunding, the firm has the exclusive ownership and utilization rights for the resource, that is capital, in the end, whereas in open source practices, the resource ownership and utilization rights remain within the community (Belleflamme et al., 2013, p. 4).

As a collective effort, crowdfunding is driven by the underlying motivation of people wanting to help others, which is strongly connected to their emotional involvement with a project. Moreover, Cialdini's (Cialdini, 1993) six principles of influence can be applied to crowdfunding: reciprocity, commitment (and consistency), social proof, liking, authority, and scarcity.

Reciprocity refers to the tendency of people to return favours since they do not like to be in someone's debt (Cialdini, 1993). This principle can be applied in two ways to crowdfunding: on the one hand, entrepreneurs will feel obliged to fulfil their promises related to the rewards, interest, or dividend payments made within the crowdfunding project; on the other hand, investors are more likely to engage financially if the project or business does something good to their community or—as is the case for family and friends (F&F)—if the entrepreneur has provided his help before.

The second principle concerns “our nearly obsessive desire to be (and to appear) consistent with what we have already done” (Cialdini, 1993, p. 57). Therefore, once we have chosen to do something, we are more likely to act in a consistent way with our commitment. In crowdfunding, this can be beneficial for future and follow-up investments; it is also likely that the investor becomes a long-term customer.

Furthermore, according to the concept of social proof, people's decisions are strongly influenced by the way other people decide and people tend to follow the majority assuming that this is the correct thing to do (Cialdini, 1993, p. 116). In crowdfunding, this behaviour can be observed in people's contributions.

The concept of liking goes one step further and describes our tendency to preferably promise something to a friend or a person we like rather than to a stranger (Cialdini, 1993, p. 167). A well-known example is Tupperware.

In crowdfunding, liking is particularly important too. A predominant factor that impacts the investors' decisions is the personality and character of the founder and the team behind the project. Investments will only be placed if they are truly convinced that the team has the necessary know-how and skills to successfully realize the project. Hence, SMEs are strongly encouraged to add a short video to their appearance on the crowdfunding platform that also demonstrates who the actors in the back are.

The fifth weapon of influence concerns our “deep-seated sense of duty to authority” (Cialdini, 1993, p. 213). As shown by the Milgram experiment in 1963, people are likely to follow the instructions of an authority, almost regardless of the circumstances (Milgram, 1963, p. 376).

In the context of crowdfunding, authority and credibility are provided through regulations (De Buysere et al., 2012, p. 7), the investor structure (Burtch et al., 2012, p. 4), or through symbols of quality such as external certificates (Ahlers et al., 2012, p. 30). For crowdfunding platforms, it is of major importance to protect the consumer via “operational and financial

transparency practice, financial control, security of information and payments, platform functionality, and operational procedures” (De Buysere et al., 2012, p. 7). Since investors can see the amount and timing of other people’s investments (Burtch et al., 2012, p. 4), it can be helpful to attract prominent investors in order to convey security and reassure potential investors. And although awards, patents, and grants do not significantly influence a project’s success (Ahlers et al., 2012, p. 30), they can still send positive signals to potential contributors.

Finally, the scarcity principle makes us believe “that opportunities [are] more valuable ... when their availability is limited” (Cialdini, 1993, p. 238). In the crowdfunding context, this principle applies to the funding period which is usually limited to 30 days. Additionally, a small box on the top right of crowdfunding projects indicates how many days are still left until the funding process is closed.

Forms of crowdfunding

Crowdfunding can be differentiated into four forms: donation-based, lending-based, equity-based, and reward-based crowdfunding. Based on the form of contribution, the action involved, or the return received, different terms are employed. The following table shortly displays their meanings and synonyms.

Synonyms for Crowdfunding

Based on contribution	Based on action	Based on return
Donation-based	Crowd donating	Altruistic-based
Reward-based	Crowd sponsoring, pre-ordering	Reward-based
Loan-based	Crowd lending, peer-to-peer (P2P) lending	Interest-based
Equity-based	Crowd investing, equity crowdfunding, profit-sharing	Return-based

Source: own illustration. Data taken from several sources e.g. Belleflamme et al., 2013, p. 1; Gumpelmaier, 2013; Massolution, 2012, pp. 12, 19.

Donation-based crowdfunding

A long-established and well-known form of crowdfunding is that based on donations, that is, the funders “invest” into a company, an organization, or an individual without obtaining any material or financial return for their commitment and rather engage out of altruism (Ahlers et al., 2012, p. 6). Moreover, the funder’s expectations to consume the product or service in the future as well as the degree of community benefits involved in the crowdfunding initiative, influence the funder’s willingness to invest (Belleflamme et al., 2013, p. 3). Crowd-donating is not complex with regards to legal aspects and the uncertainty involved in the act can be neglected since the crowd’s motivations are very detached from those in other forms of crowdfunding; the “investors” (in this case donors) engage in funding because they strongly believe in the organization they support (Ahlers et al., 2012, p. 6). Exemplary platforms that offer crowd donating are GiveForward, FundRazr, and Fundly. Crowd-donating is most suitable for nonprofit companies or social and charitable projects and causes (Baeck & Collins, 2013, p. 13). Famous examples for entities that are supported through donations are the Red Cross, political parties (e.g., Obama’s election campaigns), as well as Wikipedia.

Reward-based crowdfunding

The reward-based crowdfunding model is the most popular form (Baeck & Collins, 2013, p. 13). It is usually based on the concept of pre-ordering, that is, investors buy the product ahead of its launch and thus finance its production phase (Belleflamme et al., 2013, p. 2). In exchange for their contributions, investors are rewarded with products or services that are generally strongly connected to the project that is funded. The entrepreneur is able to price discriminate between two customer groups: the investors who pre-consume the product and pay a slightly higher price, and the ordinary customers who purchase once the product was launched in the market (Belleflamme et al., 2013, p. 2). Hence, reward-based crowdfunding allows the entrepreneur to derive larger gains and expand the market (Belleflamme et al., 2013, p. 4). Furthermore, Belleflamme et al. (2013, p. 2) have found that reward-based models are preferred when the incipient capital need is comparably small. With increasing capital requirements however, price discrimination becomes less feasible and the overall profitability of the crowdfunding project lowers, which is why other forms of crowdfunding come into place (Belleflamme et al., 2013, p. 18). The most popular platforms for crowd sponsoring are Kickstarter and Indiegogo where entrepreneurs can create pitches on their own. The method of crowd sponsoring has its origins in the creative industries (movies, music, art etc.) and is more project-based but also suits companies who

offer real tangible products since the rewards usually include different versions and extensions of that product (Baeck & Collins, 2013, pp. 13–14).

Lending-based crowdfunding

A third form of crowdfunding is crowd-lending in which case the investors lend money to the entrepreneur in exchange for a fixed periodic interest rate. Similar to every bank loan, also repayment is obligatory. The difference, however, is that money is provided by individuals instead of institutions. Platforms that offer P2P lending are Lending Club, SoMoLend, and Prosper in the US, Zopa in the UK, or Auxmoney in Germany. This form is suited for private individuals as well as for companies who intend to do several rounds of funding or do not want to come out with equity. A major benefit is that capital can be obtained at less expensive conditions than with traditional debt financing forms. However, the probability of default still subsists (Ahlers et al., 2012, p. 6; Baeck & Collins, 2013, p. 14).

Equity-based crowdfunding

In equity-based crowdfunding, entrepreneurs offer company equity or shares in their company instead of products or services in exchange for capital from the crowd (Ahlers et al., 2012, pp. 5, 7–8; Belleflamme et al., 2013, p. 2). Investors are free to choose whether they want to consume the product at a later point in time or not. This form of crowdfunding is particularly suitable when large sums of capital are needed, and more investors have to join in (Belleflamme et al., 2013, p. 2). Crowd investing arrangements are usually made through mezzanine forms, such as subordinated loans or participation papers. As not all investors have the capacity to assess the quality of a particular crowdfunding project due to their level of experience and know-how in investment, but also because of information asymmetries in general, it is recommended to entrepreneurs to signal their project's value and quality (Ahlers et al., 2012, pp. 1, 2–3, 17; Connelly et al., 2011, p. 63). Exemplary platforms for crowd investing are ASSOB in Australia, Crowdcube in the UK, SeedInvest in the US, Conda in Austria, or Seedmatch and Companisto in Germany. Among the major obstacles in crowd-investing and the reasons for its slow growth are regulatory issues. In the US for example, the sale of equity was restricted until just recently when the JOBS (Jumpstart Our Business Startups) Act was signed to ease the process of crowdfunding (Stemler, 2013, p. 271).

Elements and process of a crowdfunding campaign

The creation of a crowdfunding campaign starts differently on every platform. Principally, crowd donating, sponsoring, and lending platforms, such as Indiegogo or Fundly, offer do-it-yourself approaches and provide you with detailed guidelines on how to do it successfully, whereas crowd investing platforms have various listing criteria (not publicly available) to decide on the admittance of a certain project. Once the decision is made, the pre-launch phase begins. According to Steinberg and DeMaria (2012, pp. 14–17), a crowdfunding campaign consists of six key elements:

- (a) the product, service, or event
- (b) the pitch
- (c) the video
- (d) the rewards
- (e) the funding goal
- (f) the marketing and PR campaign

The product, service or event

It is pivotal to clearly differentiate the product, service, or event from competitive offerings and be aware of the fact that not all projects are suitable for crowdfunding. Decisive aspects are the value it provides for consumers, the audience and its willingness to support the project financially, the size of the target market, as well as its degree of innovation and appeal (Steinberg & DeMaria, 2012, p. 14). The platform Kickstarter for example indicates in its guidelines what occasions cannot be funded via their platform, including charity, websites and apps focused on e-commerce, business, and social networking, or personal projects (e.g., tuition). With regards to rewards, Kickstarter prohibits—amongst others—financial incentives such as ownership or shares in the profit (Kickstarter platform, 2017c).

The pitch

The pitch is a detailed description of the business plan and model, its unique selling proposition (USP) and competitive advantage, the target market and market volume, business partners and customers, as well as the application of funds (Gerber et. al., 2012, p. 1). Moreover, the entrepreneur and the team behind the project are of major importance

and need to be introduced. The description should be clear and to the point, thus conveying an appealing and easy to understand message that prompts people to invest or fund (Kickstarter platform, 2017a).

The video

Although the inclusion of a video is not obligatory, platforms strongly encourage entrepreneurs to include one since the success rates are significantly higher for projects with a video (Kickstarter platform, 2017a). A video it is “the best way to introduce yourself, and to give people a closer look at what you are working on” (Kickstarter platform 2017a). Regarding the content, a video is mainly the short version of the pitch, complemented by music and pictures that emotionally enhance and intensify the advantages and goals of the project.

The rewards

The decision about rewards has to be thoroughly planned and conceived. It is important that rewards are closely connected to the project, offer something for every pricing tier and address a variety of investors, as well as they must be unique and special from the perspective of investors. These guiding rules apply to monetary as well as non-monetary rewards. However, rewards not only require creativity but also necessitate a well understanding of the underlying cost structure and logistics since the intention is not to drive the company into a financial disaster by offering rewards that are not feasible or uneconomic (Steinberg & DeMaria, 2012, p. 29). For reward-based crowdfunding, Kickstarter (2017b) gives an overview on the variety of rewards.

The funding goal

In the next step, the funding goal as well as the project duration is determined. This requires a well-researched and realistic budget calculation. The entrepreneur and his team need to estimate the costs, expenses, and taxes needed to complete the desired project and to fulfil the promised rewards, including a justifiable buffer (Steinberg & DeMaria, 2012, p. 29). Furthermore, the deadline for the campaign has to be scheduled. The average duration amounts to 30 or 60 days depending on the respective platform. Moreover, platforms usually do offer a one-time prolongation of the campaign duration.

Generally, there are two methods of funding: the all-or-nothing approach and the flexible approach. In the first case, the entrepreneur receives the money raised only if he reached

his initially set funding goal (no limits upwards), whereas in the second case, all funds are forwarded to the entrepreneur regardless of the outcome. Particularly in all-or-nothing funding, thorough planning is vital. In either case, transparency and trust is a key aspect and investors need to believe that the goals are achievable and realistic, so do not overestimate your abilities (Steinberg & DeMaria, 2012, p. 29).

The marketing and PR campaign

Overall, a crowdfunding campaign has to be aligned to the preferences of the target audience, from the product or service offered, to the funding goal and deadline, down to the provision of appropriate rewards and the way communication is organized between the entrepreneur and his audience (Steinberg & DeMaria, 2012, pp. 29–30). Moreover, the personal network of the entrepreneur is significant for the launching phase: the contributions of friends and family in the early days of the campaign send strong signals to the remaining investor audience and may encourage others to invest early. In addition to this, the promotion of the project via social networks (online and offline), increases its word-of-mouth propaganda and thus the outreach (Steinberg & DeMaria, 2012, p. 30). Therefore, it is important to get your fan base to engage early on.

Crowdfunding regulations

With the financial restrictions of SMEs getting increasingly evident and severe over the past years, the active debate about crowdfunding has been pushed forwards and particularly stretched to political levels as well (Gajda et al., 2014). Still, from a regulatory perspective, the EU is highly disintegrated since no pan-European law applies but only national laws are in place (Gajda et al., 2014). EU directives are subject to each country's interpretation and, although national laws permit local crowdfunding, the markets are not scalable due to their limited size (Gajda et al., 2014). Hence, cross-border cooperation or synergies are impossible and crowdfunding initiatives are not able to take full effect.

Motivations for crowdfunding

The predominant objective of crowdfunding projects is to raise financial means. Especially for entrepreneurs, crowdfunding is a practicable solution as it is easy to access, and even small amounts of money can be contributed (Gerber et al., 2012, p. 5). Still, crowdfunding has a number of side benefits and holds a myriad of advantages for each of the three main actors in crowdfunding: entrepreneurs, investors, and platforms.

From the perspective of **entrepreneurs**, crowdfunding holds two fundamental incentives, namely that crowdfunding is cheaper than traditional financing alternatives as well as it provides access to more information (Agrawal et. al., 2013, p. 11). The lower cost of capital is the result of three causes (Agrawal et al., 2013, p. 11):

1. Better matches

Through crowdfunding, entrepreneurs are connected with those investors that have the highest interest in funding promising businesses and projects. Therefore, people with matching interests are brought together through the platform. Moreover, the investor pool is not only constituted by the immediate geographic environment of the entrepreneur but also includes investors from more distant regions. Consequently, crowdfunding provides access to capital from all over the world instead of limiting it to the entrepreneur's location as is the case in the financing alternatives.

2. Bundling

In crowdfunding projects, the entrepreneurs are mostly free in their choice of appropriate rewards and may combine financial with non-financial rewards. Hence, they are able to cater rewards to their audience's preferences, as for example by offering a share in the company together with the provision of early access to the product, limited editions, or any other form of recognition for the investors' support. These additional and usually non-financial rewards lower the overall cost of capital.

3. Information

Crowdfunding projects are visible and accessible to the broader public. Equally, (interested) investors can see what and when other people have contributed. In addition to that, crowdfunding platforms serve as an interactive tool for two-way communication between the entrepreneurs and their investors, enabling feedback and suggestions for improvement from the audience. This would not be possible in traditional financing options such as through bank loans or business angels. As a result of transparency and availability of extensive information, potential investors may be more willing to engage if they see that a project or business receives broad appeal.

Particularly the information aspect does not only contribute to a cheaper financing alternative but creates value on several levels, including market research, marketing, and financing. The open call through the internet enables the enterprise to validate its business idea in front of the broader public. Moreover, the interaction on the crowdfunding platform

between the enterprise and potential financiers provides the opportunity of collecting feedback, and hence allows the firm to make corrections and improvements on the product or service according to their customers' preferences (Agrawal et al., 2013, pp. 13–14; Belleflamme et al., 2013, p. 18). Besides, the people who actually invest in a company via crowdfunding are likely to be future customers and emotionally bonded with a certain project. As they get more and more attached to the project and their involvement increases, new methods of business evolution can be fostered (Belleflamme et al., 2013, p. 2). Consequently, the company can deduct how successful and popular its idea could be in the future already from this test market and the overall course of the crowdfunding project. Especially reward-based crowdfunding offers a good estimate of the post-launch demand since investors pre-consume the product or service before it is even on the market (Agrawal et al., 2013, pp. 12–13). And also in crowd investing the demand can be predicted based on the sales in equity. On that account, the benefits of crowdfunding do not only comprise the proof of concept but also “can be used as a promotion device, as a means to support mass customization or user-based innovation, or as a way for the producer to gain better knowledge of its consumers' preferences” (Belleflamme et al., 2013, p. 18).

But apart from the business-related motivations for crowdfunding (i.e., raise capital and get feedback for product improvements) also social aspects are an issue for entrepreneurs. An exploratory study by Gerber et al. (2012, p. 5) revealed that entrepreneurs value the long-term social relationships that are established with investors over time as well as they esteem the validation they receive from their investors, which in turn makes entrepreneurs feel more confident and self-assured. Furthermore, Cialdini's concept of social proof comes into play. As people observe others' success in crowdfunding, they become keen in replicating their experience and are motivated to become entrepreneurs themselves by starting their own crowdfunding project (Gerber et al., 2012, p. 6). Moreover, entrepreneurs are motivated by the increased awareness that crowdfunding offers to their business or project: Through the interaction on social media and other public platforms, the message is spread very fast and thus opens new (business) opportunities (Gerber et al., 2012, p. 6).

The group of **investors** is very heterogeneous and engages in crowdfunding for different reasons. Among the incentives are (Agrawal et al., 2013, pp. 14–15):

4. Access to investment opportunities

This is particularly relevant for crowd investing, that is, equity- or lending-based crowdfunding. In traditional financing alternatives, such as with business angels, investors usually can only engage in local early stage investment opportunities. Crowdfunding,

however, enables investors to get involved in promising ideas on a global scale (Gubler, 2013, para. 2).

5. Early access to new products

Especially reward-based crowdfunding, but also hybrid models that combine financial with non-financial rewards, illustrate that early access to new products is highly valued by investors: “While creators seek funds, funders seek rewards” (Gerber et al., 2012, p. 6) and are incentivized by gaining early access to products, limited editions, or services. Hence, they are also willing to give higher values (Gerber et al., 2012, pp. 6–7).

6. Community participation

Apart from early access, investors also cherish the social component that is inherent in crowdfunding and substantially differentiates it from traditional investment alternatives. It is hence considered necessary to build a social environment in form of a community around the crowdfunding project since this constitutes an essential element and incentive for people to invest in a certain project or business (Belleflamme et al., 2013, p. 3). The social interaction with fellow investors and specifically the entrepreneur himself, give investors a feeling of belonging to a distinctive group of early adopters and creative users (Gerber et al., 2012, pp. 1, 7). Moreover, the ability to access insider information, to directly communicate with the founders, and to be acknowledged by the community are strong motivational factors. Depending on the type of crowdfunding, investors enjoy different community benefits: In reward-based crowdfunding, for instance, these benefits are derived from the “consumption experience” whereas in equity-based crowdfunding they stem from the “investment experience” (Belleflamme et al., 2013, p. 2). Therefore, entrepreneurs need also to be aware of the implications of building such a community on the internal structure and processes, as for example the integration of social networks and continuous interaction with the crowd (Belleflamme et al., 2013, p. 3).

7. Support for a product, service, or idea

Apparently, also philanthropy and human kindness is an issue that significantly motivates investors. Donation-based and partly also reward-based campaigns increasingly receive support, regardless of the availability of rewards. Therefore, the simple opportunity to support specific projects, causes, or businesses with promising prospects within their social networks can be a strong incentive for investors. Besides, investors value the fact that crowdfunding enables entrepreneurs to put their ideas out without having to compromise them (Gerber et al., 2012, p. 7).

Formalization of contracts

As described in chapters 2.3 and 3.1.3.2, the early stages of new ventures are marked by investments from family and friends (Agrawal et al., 2011, p. 2). Equally, some of the money raised on crowdfunding platforms will stem from F&Fs. Since this informal source of capital carries the risk of tensions arising between the befriended parties, crowdfunding platforms formalize the transactions through clearly defined contracts and hence balance the advantages and challenges of social relationships (Lee & Persson, 2012, pp. 33–34).

Challenges of crowdfunding

Despite the many benefits of crowdfunding, it can also be very challenging for **entrepreneurs** (Agrawal et al., 2013, pp. 16–18):

1. Disclosure requirement

One of the biggest barriers for entrepreneurs is probably the disclosure requirement. As an open call to the general public, crowdfunding requires the revelation of the business model and the underlying innovation. As a matter of fact, equity crowdfunding even requires the revelation of more details as the general business strategy, cost structure, and planned number and qualification of employees. Therefore, the risk of imitation comes into effect, in particular during the funding period where the product is not yet launched. On top of this, the transparency issue makes it almost unavoidable for entrepreneurs to consider intellectual property (IP) rights and protection—which is very expensive—as well as the consequences on supplier relationships and their bargaining power.

2. Opportunity costs

Business angels and venture capitalists usually also provide their expertise and professional experience as well as their network relations to support the entrepreneur. Yet, entrepreneurs need to relinquish this benefit in crowdfunding since the majority of the crowd does not have that professional background in terms of know-how concerning investments as well as business management. Apart from this restriction, it is also less probable that investors, who actually have a deeper knowledge and professional background, share it with entrepreneurs as their rewards and incentives to do so are significantly lower in view of their smaller investment amounts. Thus, entrepreneurs are faced with opportunity costs, that is, lost benefits from choosing easier access to capital through crowdfunding over professional expertise from business angels and venture capitalists.

3. Investor management

Crowdfunding emerges when a large number of people contributes smaller amounts to a project or business idea. Hence, the entrepreneur has to deal with notably more investors, which increases the costs for coordination. Besides, the crowdfunding community commands attention which in turn disturbs management capacity and focus in terms of time and resources. In addition to that, entrepreneurs have no control over who joins the investor community. Hence, it is likely that investors with distinct objectives and characters detrimentally influence the crowdfunding project. Notwithstanding, platforms are keen to counteract this risk by means of structured investments through aggregation of investors in a fund type structure (similar to venture capital funds).

With regards to **investors**, they face three major challenges (Agrawal et al., 2013, pp. 19–20):

1. Creator incompetence

SMEs often lack relevant management experience and are not well organized internally. Hence, many entrepreneurs have difficulties in fulfilling the promises made and delivering the products on time after the project has been successfully funded. A study by Mollick (2013, pp. 12–13) revealed that over 50% of the 247 projects that promised the delivery of goods arrived with an average delay of two months. As a consequence, platform operators, as for example Kickstarter, have started to tighten their criteria for listing an entrepreneur's business on their platform.

2. Fraud

Another risk involved for investors is fraud. It may occur that entrepreneurs—as a result of their missing experience—make false or too optimistic estimates, thus attracting investors to a low-quality project with negative prospects. Even more dangerous is when criminals intentionally use false information to raise capital for a project that does not exist. Since the costs for due diligence are very high compared to the individual gain and members usually cannot be rated or evaluated by the community is a prevalent problem.

3. Project risk

Last but not least, crowdfunding serves to finance early stage ventures which are fundamentally risky. Therefore, investors face a considerable chance of failure.

Conclusion remarks

The preceding chapters have elucidated the topic of crowdfunding. Although crowdfunding is still a very young phenomenon that has yet to prove its right to exist, we can already see and feel its tremendous impact on innovation. Not only does crowdfunding change the financing and investment environment for SMEs but it also brings people closer. As Gerber et al. (2012, p. 2) put it, “understanding crowdfunding is critical as small individual contributions from creators and funders can lead to the formation of new companies, the realization of new professional identities, and fundamentally impact how we function economically and socially as it changes how, why, and which products and services are brought into existence”.

Helpful links

In this section we would like to give you an overview on different crowdfunding platforms and links to show you how crowdfunding works in practice. There exist thousands of examples, but we can only provide you with a small excerpt. Therefore, we would like to encourage you to conduct additional research on your own by browsing through the many platforms. In doing so, have a look on successful as well as on failed projects and campaigns to better understand which factors are pivotal to reach the desired outcome and success.

Overview on some crowdfunding platforms

Kickstarter: <https://www.kickstarter.com/>

Kickstarter is a global crowdfunding platform focused on creativity. People must have a clear idea of what they want to create and be prepared to share and show off your results. This crowdfunding website runs on an all-or-nothing model. If someone does not raise her or his goal amount, she or he does not receive any of the funds, but there is no penalty.

Indiegogo: https://www.indiegogo.com/#/picks_for_you

Indiegogo offers personal crowdfunding to help fund projects to bring ideas to life. The campaign options include various areas, such as media and art projects, technology, health, or environment aims. People can create campaigns for projects, business or personal events or vacations.

MicroVentures: <https://microventures.com/>

MicroVentures is an equity crowdfunding website offering investments in early stage companies. It connects accredited investors with start-ups, businesses and services looking to raise funds or participate in select secondary market opportunities. MicroVentures is the only major equity crowdfunding website that is a broker-dealer registered by the Financial Industry Regulatory Authority (FINRA) in the USA (Wikipedia, <https://en.wikipedia.org/wiki/MicroVentures>).

GoFundMe: <https://www.gofundme.com/tour/>

The money that will be collect goes directly to the person of the campaign. There are no deadlines or limits - each donation the person receives is hers or his to keep.

RocketHub: <http://www.rockethub.com/funding>

RocketHub offers crowdfunding with no restrictions to the reason for which people can raise funds. People keep everything they raise, even if they do not reach their goal.

Pozible: <https://pozible.com/>

Pozible is an international crowdfunding website that helps individuals, start-ups and non-profits fund projects. It accepts pledges in multiple currencies and formats, including bitcoin, and has a graduated fee scale. This crowdfunding website requires that projects reach their full funding goal, otherwise there will be no money provided.

Experiment: <https://experiment.com/>

Experiment is a crowdfunding site focusing on the scientific community and created by scientists for scientists. People can raise funds for topics of biology, physics, political science or computer science. The progress, data, and results of the project have to be shared openly. All projects are rigorously reviewed, provided with feedback, and scientifically approved by the Experiment team. Currently, projects are only funded in the USA, Canada, the UK, and Australia. If the interested people are conducting their research in another country, but have a bank account in one of the above-mentioned countries, they are eligible.

CrowdRise: <https://www.crowdrise.com/>

CrowdRise is a part of GoFundMe and is a platform dedicated exclusively to charitable giving. CrowdRise is created for individuals to raise money for their favourite charities and causes.

CONDA Austria: <https://www.conda.at/en/crowdinvesting/homepage-at/>

CONDA Austria funds businesses that are profit-oriented and that demonstrate an innovative nature that is easy to communicate. Through a crowd-investing campaign on CONDA people get the possibility to receive venture capital from many small investors. Investors have the opportunity to invest small amounts in promising companies with a high level of growth potential. Despite the CONDA Austria, there exists also CONDA Europe, CONDA Germany, CONDA Slovenia, CONDA Slovakia, CONDA Switzerland, and CONDA Liechtenstein.

The European Crowdfunding Network (ECN): <http://eurocrowd.org/>

The European Crowdfunding Network (ECN) was formally incorporated as an international not-for-profit organization in Brussels in 2013.

The European Crowdfunding Network executes initiatives aimed at innovating, representing, promoting and protecting the European crowdfunding industry as a key aspect of innovation and technology and aims to increase the understanding of the key roles of crowdfunding.

The European Crowdfunding Network helps to develop professional standards and provides professional networking opportunities in order to facilitate interaction between its members from across Europe and key industry partners.

Furthermore, the European Crowdfunding Network hosts webinars on crowdfunding. The aim of the webinars is to inform in a short and simple way about the most important facts about crowdfunding and to provide insights on how to take advantage from the crowd at different business life cycle stages.

The webinars <http://eurocrowd.org/category/events-meetups/webinars-and-training/> target entrepreneurs, start-ups, SMEs, as well as larger organizations.

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Competence III – Into Action

The following part includes modules (tools) that refer to the entrepreneurial competence 'Into Action' as drawn out in the EntreComp Model by Bacigalupo, Kampylis, Punie, and Van den Brande (2016).

Into Action is a third entrepreneurial competence and compiles the last category. It includes tools that foster skills such as taking the initiative, planning and managing, coping with uncertainty, ambiguity and risk, working with others, and learning through experience.

Aim is to teach students how to initiate a process that creates value, how to cope with challenges, and act independently to achieve goals. Very important in this context is also planning and managing, whereby not only short-time goals have to be set, but also medium- and long-term goals. In order to adapt to unforeseen

changes, students should learn how to develop action plans.

Making decisions under uncertainty is extremely relevant for entrepreneurs and should be trained, by testing ideas and prototypes to reduce the risk of failing in practice. Team work, collaboration and networking are three essential cornerstones of every entrepreneurial activity and therefore crucial skills for establishing a business. The training of interpersonal skills should therefore not be neglected in entrepreneurship education and is fostered through the introduced tools in this category. Finally, learning by doing should be highlighted. The inclusion of peers and mentors is especially valuable here, and should help students reflect and learn from both success and failure (Bacigalupo et al., 2018, 2016).

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Business Model Canvas

Overview

Target for the course is to provide students with a canvas tool to develop the business model for their entrepreneurial idea.

Entrepreneurial Competences

- Self-Awareness & Self-Efficacy
- Mobilizing Resources
- Financial & Economic Literacy
- Mobilizing Others
- Taking the Initiative
- Planning & Management
- Coping with Uncertainty, Ambiguity & Risk
- Working with Others
- Learning through Experience

Learning Outcomes

After having completed this module students understand the internal logic of the Business Model Canvas. They can apply the Business Model Canvas to start-up ideas they have. They appreciate how the Business Model Canvas guides their thinking.

Prerequisites

It is helpful for this module to have some ideas about the Resource Based View of the Firm and about the Organization Ecology to have some theoretical foundation for some of the terms and concepts that are key to the Business Model Canvas.

Preparation of the Teacher

For a session where you ask students to use the Business Model Canvas to develop a start-up idea make sure you have enough A3 (better: A2) copies of the Canvas available. You need to supply Post It Notes and felt tip pens in various colours.

Involvement of External Actors

You can invite start-up coaches and ask them for their account on how to use the Business Model Canvas. You might also invite external experts to give feedback on students' start-up ideas presented on a Business Model Canvas.

Time

For introducing the Business Model Canvas and its components you can calculate a workload of 0.5 ECTS.

If you want students to use the Business Model Canvas for developing their own ideas, then you can calculate a workload of 1.5 ECTS (including several revisions of the Business Model Canvas).

Assessment

You might develop a rubric to grade the students' use of the Business Model Canvas.

Content

This section uses 'you' to address students directly.

Summary

As a summary of the Business Model Canvas and to get an overview please watch the video:

<https://strategyzer.com/canvas/business-model-canvas>

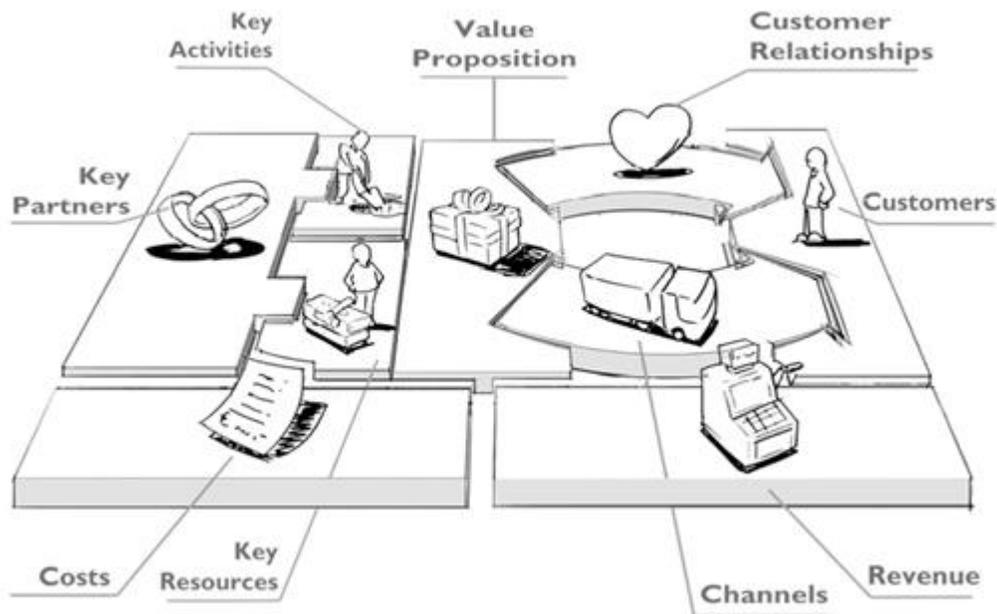
Business Model Canvas

The Business Model Canvas was developed by Alexander Osterwalder and Yves Pigneur (Osterwalder & Pigneur, 2010). The nice thing about the Business Model Canvas is that it represents a rather intuitive way to create, improve, and communicate the business model of a new enterprise. Generally, as we have said before, the concept of a business model and its components can be used for a for-profit idea and for social entrepreneurship as well, even if you consider social entrepreneurship to be not-for-profit.

Please note also that there are certain actors in the entrepreneurship system who might have a somewhat narrower idea of the term ‘business model’. If an investor asks you about your business model, then he or she does typically not want you to produce the Business Model Canvas from the back pocket of your jeans and they do usually not want you to go through all the nine building blocks of the canvas. What they are usually interested in when they ask you about your business model, is: how do you make money? So be prepared to respond differently to different audiences even if the same question is asked.

We have chosen to use the Business Model Canvas as the prime example for business model development since it represents a modern and innovative approach, straightforward and easy to apply. The Business Model Canvas is based on nine building blocks and promotes interaction, reflection, and out-of-the-box thinking, which helps you to understand the relationships between the nine building blocks.

In their book, Osterwalder and Pigneur define business models as the description of “the rationale of how an organization creates, delivers, and captures value” (2010, p. 14). According to them, a business model lays the foundation for a common understanding of what a company does for whom and how. It consists of nine elements including “customers, offer, infrastructure, and financial viability” (2010, p. 15). The figure below shows how the elements intertwine.



Business Model Canvas,
Source: Osterwalder & Pigneur, 2010, pp. 18-19.

As you will see, the Business Model Canvas summarizes individual aspects of the new enterprise. The nine steps serve you as a first orientation in order to succinctly describe your business model in a way that makes your audience immediately recognize its attractiveness. Overall, the nine building blocks support you in structuring the business parts and hence in reducing complexity.

In the following, we will provide a short description of each of the nine building blocks including some activities for you to reflect on your own business model development.

1. Key resources

This block describes which resources are needed for your business model to work out. These resources can be of:

- physical (e.g., building, machinery, vehicles, distribution)
- intellectual (e.g., patents, brands, software, customer profiles),
- financial (e.g., cash, lines of credit, investment), or
- human (e.g., competencies, know-how, qualifications, experience)

nature (Osterwalder & Pigneur, 2010, pp. 34–35). Sometimes these resources are not readily available in your start-up. Then a “make or buy” decisions needs to be made: Do you develop resources on your own, do you lease them, do you buy resources externally by making use of partnerships? (evobis, n.d., p. 85).

Question

Describe the nature of your key resources and justify your “make or buy” decisions. Write down your results.

2. Key activities

Describe which activities and processes are needed in order to produce and offer your good or service. Activities can be clustered into:

- production activities (i.e., designing, producing, delivering, primarily manufacturing firms)
- problem solving activities (i.e., finding individual solutions to customer problems; primarily consultancies and service firms)
- platform/network activities (i.e., platform management and promotion, service provisioning; primarily software and web firms)

Please, take into account that these activities are possibly connected to specific key competencies that allow you to submit a completely novel offer. For instance, consultancy firms need to distinguish themselves in the area of knowledge management and continuously secure it through advanced training. And again, it is a question of “make or buy”. Particularly for young companies, a focus on key areas is extremely important since the resources are still very limited. (evobis, n.d., pp. 85–86; Osterwalder & Pigneur, 2010, pp. 36–37).

Question

Describe your key activities and processes and how they are linked to your key competencies. Write down your results.

3. Key partnerships

As the head of a newly founded company you have to ask yourself how you and your firm want to collaborate with other firms and organizations. Partnerships aim at cost savings, economies of scale, risk reduction, as well as the transfer of particular resources and activities (e.g., licenses, access to potential customers; evobis, n.d., p. 86; Osterwalder & Pigneur, 2010, p. 39). Four types of partnerships can be differentiated (Osterwalder & Pigneur, 2010, p. 38):

- strategic alliances between non-competitors
- cooptation: strategic partnerships between competitors
- joint ventures to develop new businesses
- buyer-supplier relationships to assure reliable supplies

Consider that every type of partnership has advantages and disadvantages. In rather informal and nonbinding partnerships for instance, both parties are not really bound; both can easily end the partnership but in return also have to accept uncertainty. Hence, such partnerships are more appropriate for the acquisition of rather generic resources such as mass products, weekday services, and standardized components since these allow for quick replacement of suppliers and/ or customers. Close partnerships are partially characterized by a strong dependence between the partners; they are peculiar to highly specialized products and services or in case of great trade volumes. Partners benefit from the security of a solid partnership and the opportunity to focus on one's own strengths while also profiting from the partner's strengths. Yet, a partner's failure usually cannot be compensated without greater loss of time and potentially considerable costs. Consequently, the selection of adequate partners is a key factor for success, particularly with regards to highly specialized products or services (evobis, n.d., p. 87).

For a partnership to be successful, several parameters need to be fulfilled. First of all, a win-win situation is required so that all parties benefit from the partnership; without incentives for all sides, a partnership will not be bearable in the long-term. Second, potential risks have to be taken into account. A supplier with an exclusive agreement for example can get into an unpleasant situation if his purchaser suddenly restricts production and buys fewer components; this is even more applicable if the supplier has acquired specialized

production tools that cannot offhandedly be used for other orders and purchasers. Vice versa, a purchaser can get into trouble if a major supplier fails (e.g., bankruptcy, fire, strike etc.). Risks and potential financial burdens have to be thought of beforehand and, where necessary, become contractual. Third, interpersonal tensions can occur which is why the terms of partnership termination should be stipulated right from the beginning (evobis, n.d., pp. 87–88).

In your business plan, you should already name how and with whom you plan to collaborate in the future. Partnerships open the chance for young companies to profit from the strengths of established firms and thus allow more focus on the development of your own strengths. As a consequence, you will probably be able to grow faster than by doing it on your own. Partnership decisions are strongly related to the development of your company and can change over the course of time (evobis, n.d., p. 88).

Question

Describe your key partnerships. What type(s) of partnership do you have? What are their respective advantages and disadvantages? Why do they fit to your business? How binding are your partnerships? Also depict how you select your partners. Which criteria are relevant for your decision and why?

4. Cost structure

Based on the key resources, activities, and partnerships, you can now outline the most important cost drivers. Cost structures can show the following characteristics (evobis, n.d., p. 89; Osterwalder & Pigneur, 2010, p. 41):

- fixed costs (do not depend on output volume)
- variable costs (depend on output volume)
- economies of scale (i.e., cost benefits from increasing output)
- economies of scope (i.e., cost benefits from synergy effects and a larger scope of operations)

Moreover, some business models are more cost-driven than value-driven, depending also on the chosen strategy. Think in this context about cost leadership vs. differentiation.

Cost and price leadership: Although they are closely connected, it is important to differentiate between cost and price leadership. Cost leaders do not necessarily have to pass on their cheap production costs to customers. If the price is not the decisive buying

criterion and the product exhibits a clear added value over the existing offering, a differentiation strategy is recommended since this allows you to skim your customers' high willingness to pay and thus to maximize the profit for your innovative product.

Precondition for the price leadership strategy is that your customers consider the price as pivotal buying criterion. Your customer is not interested in technical finesses but rather wishes to buy the basic value of your product to the least possible price. This in turn requires cost leadership of your company as a prerequisite: your advance is based on economies of scale, learning curve effects, and economies of scope. Young companies for example have lower overheads than larger companies and corporations. In addition to that, innovative start-ups, can even achieve cost advantages over competitors through process innovation as optimizing input or applying new methods of production. (evobis, n.d., p. 65).

Differentiation: To pursue this strategy you *need to have a unique selling proposition (USP)* that customers regard as pivotal buying criterion and for which they are willing to pay more. You differentiate yourself from competitors by having an advantage, such as for instance a time or quality advantage, that allows you to realize higher prices. Moreover, it is crucial that you can retain this advantage over a long period of time because you always should expect imitation.

While the price leadership is first and foremost designed for the exploitation of mass markets, the differentiation strategy is appropriate for niche markets with little competition and a high willingness to pay on part of the customers. As you will learn later on, both strategies can be combined (evobis, n.d., p. 66).

Question

Describe your cost structure. What are your cost drivers? Is your business model cost-driven or value-driven? What is the proportion of fixed and variable costs? How do you realize economies of scale and scope?

5. Value proposition

The central component of your business model is the value proposition which you are offering to your customers, that is, the bundle of benefits your offering creates for a particular customer segment. This can be (evobis, n.d., p. 89; Osterwalder & Pigneur, 2010, pp. 23–25):

- newness
- performance (e.g., improvements regarding costs, quality, or time)

- customization (e.g., special design or brand)
- “getting the job done”
- design
- price
- brand/ status
- cost reduction
- risk reduction (e.g., service guarantee)
- accessibility
- convenience/ usability

Describe your value proposition. What are the particular benefit(s) of your offer for your customers?

6. Customer segments

In this part you have to describe whom you want to gain as a customer. This includes whether you address end customers or business customers, as well as whether it is a mass market, a niche market, a diversified market (e.g., pharmacies, hospitals), or a multi-sided market that consists of various participants who are connected through your offering, Google, for instance. (evobis, n.d., p. 90; Osterwalder & Pigneur, 2010, p. 21).

Question

Describe your customer segments. Are you active in the B2B or B2C sector? Who are your customers? What kind of market do you target?

7. Communication and distribution channels

In this part you show how your offering reaches the respective customer segments and how your company communicates with customers. Channels feature several functions (evobis, n.d., p. 90; Osterwalder & Pigneur, 2010, pp. 26–27):

- Raise awareness about your products and/ or services
- Help customers evaluate the offered value proposition
- Enable customers to buy certain products and/ or services
- Deliver your value proposition to customers
- Provide after-sales support

Principally, you can choose between direct (salesforce, web sales, own stores) or indirect (partner stores, wholesale) channels (Osterwalder & Pigneur, 2010, p. 27).

Question

Describe your communication and distribution channels. Have you chosen direct or indirect channels? Why?

8. Customer relationship

You should furthermore describe the type of relationship you strive to establish with your customers. Among the (co-existing) possibilities are (evobis, n.d., p. 90; Osterwalder & Pigneur, 2010, pp. 28–29):

- Personal assistance
- Dedicated personal assistance
- Self-service
- Automated service
- User-communities
- Co-creation

Question

Describe the nature of your customer relationship. How do you interact with your customers?

9. Revenue streams

Based on the customer segments, value proposition, as well as channel description, you now depict the realizable revenue streams. This component reveals how cash is generated from the various customer segments. Two types of revenue streams can be differentiated (evobis, n.d., p. 90; Osterwalder & Pigneur, 2010, pp. 30–31):

1. Transaction revenues resulting from one-time customer payments
2. Recurring revenues resulting from ongoing payments to either deliver a value proposition or provide after-sales support to customers

Besides, revenue streams can be generated in several ways (evobis, n.d., p. 90; Osterwalder & Pigneur, 2010, pp. 31–32).

- Sale of goods
- Usage fee
- Subscription fees
- Lending/ renting/ leasing

- Licensing
- Brokerage fees
- Advertising

Question

Describe your revenue streams. How do you combine transaction revenues and recurring revenues? How will you generate money?

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Patterns of Business Models

Overview

The module target is to provide students with an idea of different types of business models. The course can be designed as interactive module where students, together with lecturers and external actors reflect about different types of business models and about how business models can be innovated efficiently and successfully.

Entrepreneurial Competences

- Mobilizing Resources
- Financial & Economic Literacy
- Planning & Management
- Coping with Uncertainty, Ambiguity & Risk
- Working with Others
- Learning through Experience

Learning Outcomes

- Students can identify different business models.
- Students have an idea how to innovate a business model and how such a process can look like.
- Students have an idea about how different patterns of business models can be combined in order to innovate a business model.
- Students can relate these business model templates and transfer the models to build and/or innovate the business model for their own entrepreneurial ideas.

Prerequisites

It is helpful for this module to have some ideas about the Resource Based View of the Firm and about the Organization Ecology to have some theoretical foundation for some of the terms and concepts of the Business Models. Background knowledge about Business Models

in general, as well as about innovation is advisable, as term definitions are not part of this tool.

Preparation of the Teacher

The teacher should be familiar with the topic of business models and business model innovation. He/she should also maintain currency with the advancements in the field, e.g. newly published papers etc.

Furthermore, it is possible to build the lecture upon the article written by Gassmann, Frankenberger & Csik (2013), which introduces different patterns of business models and different steps on how to innovate a business model (St. Gallen Business Model Navigator). Students should be able to go through the 3 steps introduced in the 'Content Section'. In groups they should reflect about their current business models, about why it is necessary to innovate it and how this could be done. The card set of business model patterns should help students to think out-of-the-box (see below). Students should play through different scenarios, and discuss different possibilities with their peers.

The teacher should arrange the necessary material and software (St. Gallen Business Model Navigator). If it is not possible to access the software the article by Gassmann, Frankenberger & Csik (2013) will provide the necessary information and should serve as basis to design a set of cards with different business model patterns which are then distributed in class.

Of course, it is also possible to use business model patterns only, without going through the steps of business model innovating. Thus, students learn to recognize and analyse different business models and the combination of different patterns.

Involvement of External Actors

You can include external actors into the session as the 55 patterns of the business models can be found in innovative companies in your network. Invite entrepreneurs and have students analyse the business model of the entrepreneur given the 55 pattern of business models. Furthermore, external actors can also be invited as discussants and supporters if the lecture uses the St. Gallen Business Model Navigator Approach (see below).

Time

Options

1. Integration in regular class/lecture, envisaged time of 10-20 hours, 0.5-1 ECTS.
2. Workshop – 0.5-1 ECTS.

Assessment

Discussion/Presentations

Discussion in groups about business model innovation using the St. Gallen Business Model Navigator and the card set of business model patterns. Grade the quality of the discussion and the implementation of the steps. Develop a rubric for the grading to have a consistent way of grading.

Assessment could also be based on an assignment like the following

Take five of the 55 business models specified in the St. Gallen Business Model Navigator (<https://www.alexandria.unisg.ch/224941/1/St.%20Gallen%20Business%20Model%20Navigator.pdf>). For each one of the five business models find a start-up (can be international) and describe the business model of this start-up. Highlight the role of the entrepreneur, (establish a relationship to the theories discussed in Connor (1991)), and finally provide your account of success factors for each one of the start-ups.

[Connor, K. R. (1991). A historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm? *Journal of Management*, 17(1), 121–154.]

Note that the text in the brackets gives this assignment a theoretical twist, which might be interesting, if you want to use this in a course.

Content

Although, we all know the big success stories of companies which innovated their business model, as e.g. IKEA with its revolution of the furniture business, the establishment of organizational units dedicated to business model innovation is surprisingly rare.

One reason is that thinking out of the box is difficult and oftentimes innovative ideas are blocked by mental barriers. Moreover, many organizations which continue to make profits, do not yet see the necessity to innovate their business models, on the other hand, companies which try hard to innovate, seem often trapped and overstrained. Hence, companies are challenged to balance external and internal stimuli in order to innovate their business models successfully.

Researchers from the University of St. Gallen in Switzerland have investigated into several hundred business model innovations and found out that 90% of the innovations were actually re-combinations of previously existing concepts. They identified 55 repetitive patterns that form the core of most new business models. Out of those results they created the 'St. Gallen Business Model Navigator' which supports the creation of business models with the power of recombination along a three-step pave:

Step 1: Initiation – preparing the journey

- Describing the current business model and understanding why it should be innovated
- Open-minded team members from different departments and/or outside the company
- Overcoming the dominant industry logic and overcoming the past
- Using support tools e.g. card sets (as developed by the University of St. Gallen), business model innovation software, etc.

Step 2: Ideation – moving into new directions

- Re-combining existing concepts, breaking out of the box and generating new ideas
- Use the handy set of pattern cards with 55 patterns of successful business models as developed by the University of St. Gallen (Gassmann, Frankenberger & Csik, 2013, p. 7-14) which triggers creativity, inspiration and the creation of innovative ideas.
- Try out more distant patterns and don't give up!

Step 3: Integration – completing the picture

- Drawing inspirations from other companies which used the same pattern (St. Gallen Business Model Navigator)
- Gradually development of promising ideas into fully-grown business models
- Consistency between internal competencies, competitor's perspective, customer value and stamina

Extract from the 55 business model patterns by Gassmann, Frankenberger & Csik (2013, p. 7-14).

No	Pattern name	Exemplary companies	Pattern description
1	ADD-ON	Ryanair (1985) SAP (1992) Sega (1998)	The core offering is priced competitively, but there are numerous extras that drive the final price up. In the end, the customer pays more than he or she initially assumed. Customers benefit from a variable offer, which they can adapt to their specific needs.
2	AFFILIATION	Amazon Store (1995) Cybererotica (1994) CDnow (1994) Pinterest (2010)	The focus lies in supporting others to successfully sell products and directly benefit from successful transactions. Affiliates usually profit from some kind of pay-per-sale or pay-per-display compensation. The company, on the other hand, is able to gain access to a more diverse potential customer base without additional active sales or marketing efforts.
11	DIGITIZATION	Spiegel Online (1994) WXYC (1994) Hotmail (1996) Jones International University (1996) CEWE Color (1997) SurveyMonkey (1998) Napster (1999) Wikipedia (2001) Facebook (2004) Dropbox (2007) Netflix (2008) Next Issue Media (2011)	This pattern relies on the ability to turn existing products or services into digital variants, and thus offer advantages over tangible products, e.g., easier and faster distribution. Ideally, the digitization of a product or service is realized without harnessing the value proposition which is offered to the customer. In other words: efficiency and multiplication by means of digitization does not reduce the perceived customer value.
14	EXPERIENCE SELLING	Harley Davidson (1903) IKEA (1956) Trader Joe's (1958) Starbucks (1971) Swatch (1983) Nestlé Nespresso (1986) Red Bull (1987) Barnes & Noble (1993) Nestlé Special.T (2010)	The value of a product or service is increased with the customer experience offered with it. This opens the door for higher customer demand and commensurate increase in prices charged. This means that the customer experience must be adapted accordingly, e.g., by attuning promotion or shop fittings.
33	OPEN SOURCE	IBM (1955) Mozilla (1992) Red Hat (1993) mondoBIOTECH (2000) Wikipedia (2001) Local Motors (2008)	In software engineering, the source code of a software product is not kept proprietary, but is freely accessible for anyone. Generally, this could be applied to any technology details of any product. Others can contribute to the product, but also use it free as a sole user. Money is typically earned with services that are complementary to the product, such as consulting and support.

46	SHOP-IN-SHOP	Tim Hortons (1964) Tchibo (1987) Deutsche Post (1995) Bosch (2000) MinuteClinic (2000)	Instead of opening new branches, a partner is chosen whose branches can profit from integrating the company's offerings in a way that imitates a small shop within another shop (a win-win situation). The hosting store can benefit from more attracted customers and is able to gain constant revenue from the hosted shop in the form of rent. The hosted company gains access to cheaper resources such as space, location, or workforce.
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Developing an effective **business model innovation process** is the most difficult task for most companies and this is where the St. Gallen Business Model Navigator comes into play and supports out-of-the box thinking. With the St. Gallen Business Model Navigator™ a new methodology has been developed that structures the process of business model innovation.

References

Gassmann, O., Frankenberger, K., & Csik, M. (2013). The St . Gallen Business Model Navigator. *International Journal of Product Development*, 18(3), 249–273. http://doi.org/10.1007/978-3-319-01056-4_7

Business Model Canvas & Social Entrepreneurship

Overview

This module introduces a variant of the Business Model Canvas that can be used for social entrepreneurship ideas.

Entrepreneurial Competences

- Ethical & Sustainable Thinking
- Self-Awareness & Self-Efficacy
- Mobilizing Resources
- Financial & Economic Literacy
- Mobilizing Others
- Taking the Initiative
- Planning & Management
- Coping with Uncertainty, Ambiguity & Risk
- Working with Others
- Learning through Experience

Learning Outcomes

Upon finalization of this module, students know a business model Canvas for social entrepreneurship. They can discuss the business model of social businesses and analyse the building blocks of the business model.

Prerequisites

You should have studied the module about the Business Model Canvas.

Preparation of the Teacher

For group discussion in the classroom and for the discussion of some social enterprise's business model bring A3 copies (or larger) of the canvas to the classroom. Also provide Post-Its for your students.

Involvement of External Actors

You can include social entrepreneurs and have the students explore the business model of their social enterprise.

Time

For introducing the Business Model Canvas and its components in the context of social entrepreneurship you can calculate a workload of 0.5 ECTS.

If you want students to use the Business Model Canvas for developing their own ideas with a social purpose, then you can calculate a workload of 1.5 ECTS (including several revisions of the Business Model Canvas).

Assessment

An assessment is not necessary and depends on how the module is integrated in the curriculum/course/module. If an assessment is requested it could be based on the creation of business models by students (using their own ideas or predefined examples), where students individually submit a business model Canvas for social entrepreneurship.

Content

This section uses 'you' to address students directly.

You might wonder if a Business Model Canvas introduced already can be used, when you are trying to set up a social enterprise. The answer to this question is yes. Actually, the answer is a two-fold 'yes'.

First, there is a variant of the original Business Model Canvas devised by Osterwalter and Pigneur (2010) that specifically targets social enterprises. This business model canvas can be found at <http://www.socialbusinessmodelcanvas.com>.



Social Business Model Canvas				
<p>Key Resources</p> <p><i>What resources will you need to run your activities? People, finance, access?</i></p>	<p>Key Activities</p>	<p>Type of Intervention</p> <p><i>What is the format of your intervention? Is it a workshop? A service? A product?</i></p>	<p>Segments</p>	<p>Value Proposition</p> <hr/> <p>Social Value Proposition</p> <p>Impact Measures</p>
<p>Partners + Key Stakeholders</p> <p><i>Who are the essential groups you will need to involve to deliver your programme? Do you need special access or permissions?</i></p>	<p><i>What programme and non-programme activities will your organisation be carrying out?</i></p>	<p>Channels</p> <p><i>How are you reaching your beneficiaries and customers?</i></p>	<p>Beneficiary</p> <p>Customer</p> <p><i>Who are the people or organisations who will pay to address this issue?</i></p>	<p><i>How will you show that you are creating social impact?</i></p> <hr/> <p>Customer Value Proposition</p> <p><i>What do your customers want to get out of this initiative?</i></p>
<p>Cost Structure</p> <p><i>What are your biggest expenditure areas? How do they change as you scale up?</i></p>		<p>Surplus</p> <p><i>Where do you plan to invest your profits?</i></p>	<p>Revenue</p> <p><i>Break down your revenue sources by %</i></p>	

Inspired by The Business Model Canvas

Social Business Model Canvas
Source: <http://www.socialbusinessmodelcanvas.com>

You can use this Canvas for your social entrepreneurship idea. You clearly see that there are some differences to the traditional Business Model Canvas. The differences are self-explanatory if you have worked through the Business Model Canvas before.

Key Resources What resources will you need to run your activities? People, finance, access?

Partners and Key Stakeholders Who are the essential groups you will need to involve to deliver your programme? Do you need special access or permissions?

Key Activities What programme and non-programme activities will your organisation be carrying out?

Cost Structure What are your biggest expenditure areas? How do they change as you scale up?

Type of Intervention What is the format of your intervention? Is it a workshop? A service? A product?

Channels How are you reaching your users and customers?

Surplus Where do you plan to invest your profits?

Segments – Beneficiary: Who benefits from your intervention

Segments – Customer: Who are the people or organisations who will pay to address this issue?

Value Proposition - How will you show that you are creating social impact? What do your customers want to get out of this initiative?

Revenue What are the revenue streams that you are expecting?

The second 'yes' comes from the fact that you can also use the original Business Model Canvas for your social entrepreneurship idea as all important building blocks for a commercial entrepreneurship idea are also important for a social entrepreneurship idea. Here it becomes obvious that the Business Model Canvas is a tool to facilitate your thinking about an entrepreneurial idea and its crucial building blocks.

References

Osterwalder, A., & Pigneur, Y. (2010). *Business model generation: a handbook for visionaries, game changers, and challengers*. John Wiley & Sons.

Role Play - Failure & Grief

Overview

This module fosters the experience of emotions through interactive ways, whereby especially the learning from failure in entrepreneurship is addressed. Through role-plays, students have the possibility to experience another perspective in an unfamiliar or new situation, thinking and behaving as if they were someone else.

Role-plays stimulate experiences within safe and low risk surroundings, whereby at the same time participants separate themselves from the character they are playing, and experience in turn highly liberating and important live lessons. Role-plays are extremely effective in order to learn about attitudes and behaviours, and for experiencing different psychological contexts.

This module focuses on how students "feel" and helps students manage the emotions of learning from failure. Thus, students have the possibility to explore possibilities on how to manage their emotions to avoid failure, whereby at the same time they can improve their emotional intelligence.

The module embraces two different role-plays. The first one aims at individuals to experience the emotions of failure, while the second role-play provides insights into the emotions of failure at the organizational level.

Entrepreneurial Competences

- Self-Awareness & Self-Efficacy
- Motivation & Perseverance
- Taking the Initiative
- Coping with Uncertainty, Ambiguity & Risk
- Working with Others
- Learning through Experience

Learning Outcomes

The module provides students insights into the often complex and stressful task of analysing why failure occurs in order to learn from the experience. This task can be made more manageable when the emotions surrounding failure can be regulated.

The researchers Weick (1990, 1993, 1996) and Dornier (1996) propose that inefficient information processing can be a cause of failure. Greater efficiency can be achieved through certain procedures for problem solving (Dornier, 1996) and the regulation of emotion (Argyris, 1990; Elster, 1999; Staw, Sandelands, & Dutton, 1981; Weick, 1990).

The entrepreneur's task is one that places considerable strain on his or her information-processing ability (Baron, 1998). Therefore maintaining (or improving) information-processing efficiency appears to be important for the entrepreneurial process (i.e., other than after failure or dealing with an event that could cause failure).

Prerequisites

Participants should have basic knowledge about entrepreneurship and have ideally already absolved a course of 'Entrepreneurship Basics' before.

Supportive Readings

- Timmons, J. A. 1999. New venture creation; Entrepreneurship for the 21st century. Boston, MA: Irwin McGraw-Hill.

Preparation for the Teacher

1. The teacher should maintain currency with theoretical advancements on the topic (emotions of failure, role of emotions in causing failure, learning from failure, emotional intelligence and emotional capability), e.g. reading current literature and newly published paper in the field.
2. The teacher should use the information gained in step one to supplement the content of current lectures or as the basis for new lectures. The development of a student script could be valuable and helpful for students as well.

3. Already available cases or new cases on the topic (at the individual or organizational level) should be integrated and used to stimulate and encourage class discussion and learning.
4. The teacher is free to experiment with different methods of reflections and role-play. Especially previous and already existing contents are suitable for a first test run. Once the teacher feels confident about the role-play and reflection techniques, using it in combination with new contents will be fruitful.
5. During the lecture itself, the teacher should choose and use simulations to awake emotions (hopefully about failure experiences) at the beginning. Afterwards, oral debriefings in combination with e.g. student journals, where they capture what they have experienced, are an expedient method to reflect and maximize the educational benefits.
6. In order to exploit and extend the opportunities to learn how to better manage emotions, also other aspects of the entrepreneurial process could be considered by teachers and integrated.

Involvement of External Actors

External actors could be involved as guest speakers in class who

- manage an organization that experiences or experienced failure
- work in organization with considerable emotional capability
- can articulate the organizational norms and routines used to manage emotions of employees and how this impacts organizational learning.

Time

Options:

1. Summer School – 2 Weeks, 1-2 ECTS
2. Workshop – 1-2 days, 1 ECTS
3. As part of a regular lecture e.g. advanced entrepreneurship – 25-50 hours, 1-2 ECTS

Assessment

Oral Debriefings

Class discussions with lecturers and guest speakers, focusing on events, emotions, empathy and explanations should be graded.

Writing a Reflection Paper

To record the perception of the role-play reflection papers an especially useful. Writing a report encourages greater reflection and introspection. Furthermore, students are more likely to talk about feelings in a written form, than in front of the whole class. The reflection on others' standpoints and opinions, examples etc. is also crucial. Finally, students should be able to report about what theories they have learned as theories of grief, emotional management, and failure, and should be able to link them back to their own entrepreneurial activities.

Content

Input session on theories of grief, emotional management and failure

Topic 1

Entrepreneurs and entrepreneurship

Pre-Readings

- Timmons, J. A. 1999. New venture creation; Entrepreneurship for the 21st century. Boston, MA: Irwin McGraw-Hill.
- Hirsch, R.D., & Peters, M.P. 2001. Entrepreneurship. McGraw-Hill Irwin: Boston, MA.

Topic 2

Business failure, bankruptcy, grief over the loss of a loved one

Pre-Readings

- Nolen-Hoeksema, S., McBride, A., & Larson, J. 1997. Rumination and psychological distress among bereaved partners. Journal of Personality and Social Psychology, 72: 855-862

- Stroebe, M. S., & Schut, H. 1999. The dual process of coping with bereavement: Rationale and description. *Death Studies*, 23: 197-224.

Topic 3

Trauma

Pre-Readings

- Janoff-Bulman, R. 1992. *Shattered assumptions: Towards a new psychology of trauma*. New York, NY: Free

Topic 4

Entrepreneurs' grief over business failure

Pre-Readings

- Shepherd, D. A. 2003. Learning from business failure: Propositions about the grief recovery process for the self-employed. *Academy of Management Review*, 28: 318-329.

Role Plays

Role-Play A

Role-plays that provide individuals experience the emotions of failure.

Role-Play 1

One student prepares a speech role playing an entrepreneur informing employees that the business has failed and will not be operating from tomorrow on. The class role plays as devoted employees upset about losing their jobs.

Role-Play 2

In groups of two, one student can role play an entrepreneur informing a spouse of the business' failure and the other student role play the shocked spouse's response and subsequent discussion.

Role-Play 3

In small groups, role play the interchange between an entrepreneur of a failed business who is expressing negative emotions and a friend providing advice on how to best cope with the situation.

Role-Play 4

In small groups, role play the interchange between (a) an entrepreneur of a recently failed business who still feels negative emotions when thinking about the lost business, and (b) an entrepreneur of a failed business who has recovered from grief, learned from the experience, and has started another business.

Role-Play B

Role-plays can also be used to provide insight into the emotions of failure at the organizational level. This can be achieved through the role-play interactions of an individual with an organization, where students can role play both the individual and the organization.

Role-Play 5

In groups of four, one student can role play a CEO who must inform his three researchers that the project they have been working on for 3 years has been terminated, and they are to be reassigned to new projects.

Role-Play 6

In groups, role play a management meeting where the discussion is to revolve around the implications of pursuing high-risk projects and how the organization can best learn from each project, regardless of whether the project is a success or a failure.

Role-Play 7

In small groups, role play the interchange between two research teams whose projects recently failed, with one team part of an emotionally capable organization and the other, an emotionally ignorant organization.

References

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- Dorner, D. 1996. *The logic of failure*. Reading, MA: Addison- Wesley.
- Hirsch, R.D., & Peters, M.P. 2001. *Entrepreneurship*. McGraw-Hill Irwin: Boston, MA.
- Janoff-Bulman, R. 1992. *Shattered assumptions: Towards a new psychology of trauma*. New York, NY: Free
- Nolen-Hoeksema, S., McBride, A., & Larson, J. 1997. Rumination and psychological distress among bereaved partners. *Journal of Personality and Social Psychology*, 72: 855-862
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- Shepherd, D.A., 2004. Educating entrepreneurship students about emotion and learning from failure. *Academy of Management Learning and Education*, 3(3): 274-278.
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- Timmons, J. A. 1999. *New venture creation; Entrepreneurship for the 21st century*. Boston, MA: Irwin McGraw-Hill.
- Weick, K. E. 1990. The vulnerable system: An analysis of the Tenerife air disaster. *Journal of Management*, 16(3): 571-594.
- Weick, K. E. 1993. The collapse of sense-making in organizations: The Mann Gulch disaster. *Administrative Science Quarterly*, 38(4): 628-653.
- Weick, K. E. 1996. Drop your tools: An allegory for organizational studies. *Administrative Science Quarterly*, 41(2): 301-314

Decisions to Make

Overview

Target for the course is to provide students with a small set of decisions that are of strategic relevance to the future business or social enterprise. The discussion of these decisions includes the introduction of the analysis of the industrial structure (Porter's five forces) and the PESTEL analysis.

Entrepreneurial Competences

- Self-Awareness & Self-Efficacy
- Mobilizing Resources
- Financial & Economic Literacy
- Mobilizing Others
- Taking the Initiative
- Planning & Management
- Learning through Experience

Learning Outcomes

Once completed this module the students understand certain strategic decisions an entrepreneur has to make. Students can apply appropriate analyses for these decisions.

Prerequisites

It is helpful for this module to have some ideas about the Resource Based View of the Firm and about the concepts that are key to the Business Model Canvas. Only then the context of the decisions will be clear.

Preparation of the Teacher

Prepare the classroom or the online forum in a way that facilitates the discussion among students. Please make sure that either all students or no student have institutional access

to the MarketLine database mentioned below. You may use the questions below as an input into the small group discussions.

Involvement of External Actors

External actors can be easily involved in this module. We suggest to include entrepreneurs who report about their decisions.

Time

0.5 ECTS.

Assessment

You can use the questions in the content section below to create assignments and grade these assignments appropriately.

Content

This section uses 'you' to address students directly.

Important Decisions to Make

“Make or buy” Decisions

In the context of resources and activities, you always have to decide which activities are better done by yourself (looking at your key competencies) and which should be outsourced to external service providers or partners. Moreover, also supportive tasks, such as for example accounting or human resource management, do not need to be performed by yourself. In fact, you should ask yourself for every activity: make or buy?

Within “Make or buy” decisions the respective advantages and disadvantages have to be considered. In this regard it is essential to determine where your key competencies are actually lying. Activities which claim your key competencies and key resources should remain in house, others instead, can be outsourced. Furthermore, such decisions are usually not permanent, meaning that decision about outsourcing or insourcing are indeed conceivable starting/cancelling anytime (evobis, n.d., p. 88).

Criteria for “make or buy” decisions

Strategic relevance: Activities that substantially contribute to your competitive advantage are of strategic relevance. Hence, these activities should remain under your control. For instance, technology firms would not outsource R&D activities, as for ex. Coca Cola would also never reveal its recipe.

Best suitability: Every entrepreneurial activity requires specific capabilities that are not necessarily available within the team. Thus, you need to consider whether it makes sense to execute certain tasks, demanding specific capabilities not (yet) available within your organization, by your own and to learn the needed skills, or whether it would be more advantageous to source them out to a specialized firm. Specialized firms do not only have more experience with executing the specific task but enable also cost benefits thanks to a greater volume of orders.

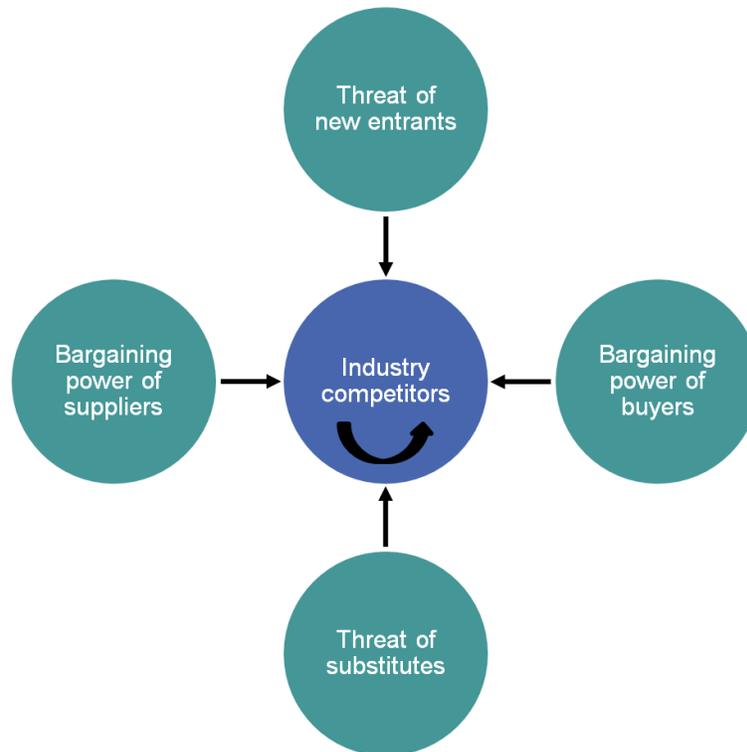
Market offer: Before making a “buy” decision, you need to clarify if the products and/ or services are available on the market in the desired form or specification. Whenever possible, negotiate with multiple providers since you will usually receive more favourable conditions and simultaneously learn more about the to-be-bought service. Oftentimes, the cooperation with a supplier can even improve his performance. In case no provider is available for a certain task, you will maybe find a partner who is willing to develop the required capabilities.

Question

Describe your “make or buy” decisions considering the respective advantages and disadvantages.

Industry around Your Enterprise

You should never regard your business model in isolation. Instead, you need to consider the business environment and various market forces in place. In this regard, an analysis of Porter’s five forces helps you to assess the attractiveness of an industry that you might want to enter. Please note, that Porter’s five forces does not explicitly include innovation activities within the industry. Hence, it is a rather static model of the industry. When you analyse the five forces always bear in mind that actors in the industry can come up with novel products, services, or business models, just as you do.



Porter's Five Forces
Source: Porter, 1980, pp. 3–33.

In this section we want to highlight what these five forces are. Barriers to entry are created by

- Economies of scale
- Proprietary product differences
- Brand identity
- Switching costs
- Capital requirements
- Access to distribution
- Absolute cost advantages
 - Proprietary learning curve
 - Access to necessary inputs
 - Proprietary low-cost product design
- Government policy
- Expected retaliation

The level of rivalry is determined by:

- Growth of the industry
- Fixed (or storage) costs/ value added
- Intermittent overcapacity
- Product differences
- Brand identity
- Switching costs
- Concentration and balance
- Informational complexity
- Diversity of competitors
- Corporate stakes
- Exit barriers

The threat of substitution is determined by:

- Relative price performance of substitutes
- Switching costs
- Buyer propensity to substitute

Buyer power depends on:

- Bargaining leverage
- Buyer concentration vs. firm concentration
- Buyer volume and buyer information
- Buyer switching costs relative to firm switching costs
- Ability to backward integrate
- Substitute products
- Pull-through
- Price sensitivity
- Price/ total purchases
- Product differences
- Brand identity impact on quality/ performance
- Buyer profits
- Decision makers' incentives

The power of suppliers hinges on:

- Differentiation of inputs
- Switching costs of suppliers and firms in the industry

- Presence of substitute inputs
- Supplier concentration
- Importance of volume to supplier
- Cost relative to total purchases in the industry
- Impact of inputs on cost or differentiation
- Threat of forward integration relative to threat of backward integration by firms in the industry

Question

As an exercise take an industry that you know and try to find out about the five forces in this industry. If you have access to MarketLine (<http://advantage.marketline.com>) select an industry that you are interested in, select a geography. The MarketLine industry report will also contain an analysis of Porter's five forces. Please do not underestimate the value of professionally researched market and industry reports.

The Environment Around Your Enterprise

The business environment around your new enterprise strongly determines the risk you are taking, the freedom you have to operate, the restrictions and obstacles you face, and finally the likelihood of your enterprise to survive. Find out what business environment surrounds you and systematically look for opportunities to further develop your business model (evobis, n.d., pp. 91–92).

A PESTEL analysis can be a helpful device to analyse the environment. The bullet list below provides you with a checklist of issues that would fall under the notion of political, economic, socio-cultural, technological, environmental, and legal factors that you have to consider (Jurevicius, 2013). You can certainly see why each one of these factors has a bearing on the likelihood of success for your profit or non-profit enterprise.

Usually, a PESTEL analysis is carried out on the level of a country or a region. In international business you look at the PESTEL analysis when you analyse the expansion of your business abroad. The analysis, however, is also valuable if you want to enter a market that you have not operated in before and - maybe even different options are available to you.

Political factors:

- Government stability and likely changes
- Bureaucracy
- Corruption level

- Tax policy (rates and incentives)
- Freedom of press
- Regulation/ de-regulation
- Trade control, tariffs
- Import restrictions (quality and quantity)
- Competition regulation
- Government involvement in trade unions and agreements
- Environmental law, education law
- Anti-trust law, discrimination law
- Copyright, patents / IP law
- Consumer protection and e-commerce
- Employment, health and safety law
- Data protection law
- Laws regulating environmental pollution

Economic factors:

- Growth rates
- Inflation rate
- Interest rates
- Exchange rates
- Unemployment trends
- Labour costs
- Stage of business cycle
- Credit availability
- Trade flows and patterns
- Level of consumers' disposable income
- Monetary policies
- Fiscal policies
- Price fluctuations
- Stock market trends

Socio-cultural factors:

- Health consciousness
- Education level
- Attitudes toward:
 - imported goods and services
 - work, leisure, career and retirement

- product quality and customer service
- saving and investing
- “green” or ecological products
- renewable energy
- Emphasis on safety
- Lifestyles
- Buying habits
- Religion and beliefs
- Population growth rate
- Immigration and emigration rates
- Age distribution and life expectancy rates
- Sex distribution
- Average disposable income level
- Social classes
- Family size and structure
- Minorities

Technological factors:

- Basic infrastructure level
- Rate of technological change
- Spending on research & development
- Technology incentives
- Legislation regarding technology
- Technology level in your industry
- Communication infrastructure
- Access to newest technology
- Internet infrastructure and penetration

Environmental factors:

- Weather and climate change
- Laws regulating environment pollution
- Air and water pollution
- Recycling and waste management
- Attitudes toward:
 - “green” or ecological products
 - renewable energy
- Endangered species

Legal factors:

- Anti-trust law
- Discrimination law
- Copyright, patents/ Intellectual property law
- Consumer protection and e-commerce
- Employment law
- Health and safety law
- Data protection

Question

As an exercise take a country you know and look at a company or an industry that you know and try to find important factors that determine the firm's / industry's environment in the selected country. Try to build a PESTEL analysis. If you have access to MarketLine (<http://advantage.marketline.com>) select a geography (country, region or continent). The MarketLine will also provide you with a PEST (without the EL) analysis. Here again, please do not underestimate the value of professionally researched market and industry reports.

Location of the company

To determine the location of your company, you need to ask yourself, if the location influences your company's success. For the initial start-up phase and for subsequent financing rounds, for initial staffing the start-up, and for subsequent growth (to name a few instances) location may be crucial. Granted, that over the last two decades we have witnessed that transportation costs and costs for information have fallen dramatically. Yet, location still matters in terms of access to networks and to labour markets (which turn out not to be so mobile), for instance.

For companies with direct distribution and thus greater customer proximity, the location issue is of vital significance. Thus, your location choice is highly connected to your distribution strategy as well as to company-specific factors. Possible criteria for the location choice are:

- Customer proximity
- Necessity of a branch-specific environment
- Availability of adequate employees
- Infrastructure, traffic connection, rental charges/ cost of land, IT
- Intensity of competition in the surroundings
- Financial aspects (e.g., regional subsidies)
- Proximity to raw material

Shortly explain the choice of your location. Remember though that your company could make fast progress and grow in terms of team size. Hence, you should choose a location that allows you to stay for at least two years without moving (evobis, n.d., p. 93).

References

evobis. (n.d.). *Handbuch zur Businessplan-Erstellung (8th ed.)*. evobis.

Jurevicius, O. (2013). *PEST & PESTEL Analysis*

<https://www.strategicmanagementinsight.com/tools/pest-pestel-analysis.html>

Osterwalder, A., & Pigneur, Y. (2010). *Business Model Generation*. Hoboken, New Jersey: John Wiley & Sons.

Strategies and Models

Overview

Target for the module is to induce students to think about entrepreneurial strategies and business models.

Entrepreneurial Competences

- Mobilizing Resources
- Financial & Economic Literacy
- Planning & Management
- Coping with Uncertainty, Ambiguity & Risk
- Working with Others
- Learning through Experience

Learning Outcomes

Once completed this module the students understand certain strategic decisions an entrepreneur has to make. Students can apply appropriate analyses for these decisions.

Prerequisites

It is helpful for this module to have some ideas about Entrepreneurship and the Business Model Canvas.

Preparation of the Teacher

Select a textbook about entrepreneurship and indicate the section to the student, which covers strategies and business models. You might complement the entrepreneurship textbook with a textbook about corporate strategies.

Involvement of External Actors

External actors can be easily involved in this module. We suggest including entrepreneurs who report about their strategies and business models.

Time

0.5 ECTS.

Assessment

You can use the questions in the content section below to create assignments and grade these assignments appropriately.

Content

This section uses 'you' to address students directly.

Reading Guide

Please work through the strategies section in your entrepreneurship textbook.

In Matzler et al. (2013) you get a good impression about what dimensions a business model comprises. The example is well known to all of you: Nespresso.

Chesbrough (2007s) argues that business models that are obsessed with technology might not be too good. Chesbrough (2007b) also points out that there is a distinction between open and closed business models, where the latter – so he argues – is the better.

To get an impression about a book sometimes reading a book review is helpful. Here it is the case. Please read Au-Yong Oliveira and Pinto Ferreira (2011). The book 'Business Model Generation' introduced the Business Model Canvas which can be downloaded here (http://www.businessmodelgeneration.com/downloads/business_model_canvas_poster.pdf). The website www.businessmodelgeneration.com contains helpful information and tutorials.

If you can and if you have not done so already, please get a copy of Osterwalder and Pigneur (2010). It is a really inspiring book for entrepreneurs.

When it comes to certain strategic choices some still believe that being the first always is a good strategy. In some cases, it may be. However, in other cases it may as well be more profitable and lead to a more sustainable success to be the second. You might read Shankar and Carpenter (2013) about this. Also read Yang et al. (2015), which has a slightly different focus about first movers.

Question

Please work through Matzler et al. (2013) and identify the building blocks of a business model innovation. Analyse a business model innovation in your industry (or a business model innovation that you happen to know) and discuss the building blocks of a business model innovation in this context. Please note that it might be hard for you to identify all of the Matzler et al. building blocks being present simultaneously. If one of the building blocks is not present in your example, please argue why this may make sense.

References

- Au-Yong Oliveira, M., & Pinto Ferreira, J. J. (2011). Business model generation: A handbook for visionaries, game changers, and challengers. *African Journal of Business Management*, 5(7), 288-298
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- Matzler, K., Bailom, F., Eichen, S. F. von den, & Kohler, T. (2013). Business model innovation: coffee triumphs for Nespresso. *Journal of Business Strategy*, 34(2), 30-37. doi:10.1108/02756661311310431
- Osterwalder, A., & Pigneur, Y. (2010). *Business model generation: a handbook for visionaries, game changers, and challengers*. Hoboken NJ: Wiley.
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- Shankar, V., & Carpenter, G. (2013, November 4). *The second-mover advantage: A primer on how late-entering companies can compete with pioneers*. Kellogg Insight. http://insight.kellogg.northwestern.edu/article/the_second_mover_advantage

Final Project – Business Plan

Overview

Target for the module is to induce students to think about their entrepreneurial idea and prepare a business plan sketch or a business plan (depending on the time available to students)

Entrepreneurial Competences

- Spotting Opportunities
- Creativity
- Vision
- Valuing Ideas
- Ethical & Sustainable Thinking
- Self-Awareness & Self-Efficacy
- Motivation & Perseverance
- Mobilizing Resources
- Financial & Economic Literacy
- Mobilizing Others
- Taking the Initiative
- Planning & Management
- Coping with Uncertainty, Ambiguity & Risk
- Working with Others
- Learning through Experience

Learning Outcomes

Once completed this module the students understand certain strategic decisions an entrepreneur has to make. Students can apply appropriate analyses for these decisions.

Prerequisites

It is helpful for this module to have some ideas about Entrepreneurship and the Business Model Canvas.

Preparation of the Teacher

Make the information about the final project available to students.

Involvement of External Actors

External actors such as start-up coaches or entrepreneurs can be involved in the grading process.

Time

2 ECTS for a business plan sketch or 3 ECTS for a business plan.

Assessment

Grade the business plan or a presentation of the business plan.

Content

This section uses 'you' to address students directly.

Your Final Project

The final project of the course is to write a brief business plan or a business plan sketch about an entrepreneurial idea that you have developed during the course. Use the ideas and inspirations that you collected during the last weeks. Select the most promising one and tailor a business plan based on this idea.

I suggest that you use the template provided for the structure of the business plan.

A jury of three (an entrepreneurship coach, an entrepreneur and myself) will evaluate your business plan, which will be 30% of your final grade.

We will assess the business plan based on the following characteristics:

1. Form (20%)
2. Customer Problem (15%)
3. Business Model (15%)
4. Competition Analysis (15%)
5. Team (15%)
6. All Other Issues (20%)

Additionally, to complement the business plan (10% of your grade), you have to produce a presentation including the narration, so that the presentation provides a self-contained pitch for the idea that you captured in the business plan. The easiest way to do this (not the only one, of course) is to use the recording capabilities of Microsoft PowerPoint (<https://support.office.com/en-us/article/Add-narration-to-a-presentation-0b9502c6-5f6c-40ae-b1e7-e47d8741161c#bm5>).

Marshmallow Challenge

Overview

The Marshmallow Challenge has been developed by Peter Skillman and is a design collaboration game intended to help teams experience fundamental dynamics of teamwork. This collaboration game is often used to break the ice in brainstorming and collaboration sessions. Teamwork is a relevant competence which lies at the core of all entrepreneurial activities, as every successful entrepreneur has to work closely with people (team, customers, suppliers, stakeholders, investors, etc.). Leading and motivating skills are especially important for entrepreneurs, as well as good communication skills. In this module students are challenged to work in teams where the collective output determines final success. Furthermore, they are challenged to create a prototype and to be then able to improve and continuously refine this prototype until the aim is reached.

Entrepreneurial Competences

- Self-Awareness & Self-Efficacy
- Mobilizing Resources
- Mobilizing Others
- Taking the Initiative
- Planning & Management
- Coping with Uncertainty, Ambiguity & Risk
- Working with Others
- Learning through Experience

Learning Outcomes

Students get aware of the fact that diverse skills matter, and that they have the best chances to win the challenge if they work as a team together and make use of a diverse pool of competences. Students will learn how to collaborate in a team, and how to integrate specialization and facilitation skills to reach the goal of the challenge. Students should finally develop a sense for shared experience, common language, prototyping and facilitation.

The marshmallow is a metaphor for the hidden assumptions of a project. The assumption in the Marshmallow Challenge is that marshmallows are light and fluffy and easily supported by the spaghetti sticks. In reality however, the marshmallows don't seem so light at all.

Hence, if we compare the challenge to a real-world project, the lesson is that we need to identify the assumptions in our project first of all– the real customer needs, the cost of the product, the duration of the service – and test them early and often. That is the mechanism that leads to effective innovation.

Prerequisites

None.

Preparation of the Teacher

Running a Marshmallow Challenge does not require high efforts and includes the following steps:

- Finding a suitable venue e.g. classroom with tables big enough to build a 'sculpture/tower'
- Organizing participants in teams: minimum of two teams, four people per team
- Acquiring the tools/ingredients
- Ingredients per group/team:
 - 20 sticks of spaghetti, one meter of tape, one meter of string, one marshmallow
- Other ingredients:
 - Stopwatch (mobile phone), measuring tape, photo camera for documentation (optional), incentive, e.g. symbol, food, money, etc. (optional)
- Preparing and equipping the tables
- Setting up the environment: introducing to the game by explaining the challenge, building teams, stopping time, etc.

Find the detailed steps below:

Step 1: Scheduling a meeting

- Teams should have 45-60 minutes of time to fully engage in the challenge.
- Building teams of four people.
- Preparing a table to work on for each team.

Step 2: Assembling a Kit for each Team

In advance a marshmallow challenge kit for each team is created, with each kit containing twenty sticks of spaghetti, one meter of masking tape, one meter of string and one marshmallow. These ingredients should be placed e.g. into a paper lunch bag, which simplifies distribution and hides the contents, maximizing the element of surprise.

- **Spaghetti:** uncooked; spaghetti or fettucini are not suitable for use.
- **String:** string which can be easily broken by hand or include scissors.
- **Marshmallow:** 'standard' size, about 3-4 cm. Mini or jumbo marshmallows, as well as stale marshmallow are not suitable for use.
- **Masking Tape:** standard masking tape.

Additional tools:

- **Measuring Tape:** to measure the height of the structures.
- **Countdown App or Stopwatch:** The actual marshmallow challenge takes eighteen minutes. Eighteen minutes seems to be the optimum time. Twenty minutes is too long and fifteen is too short. Idea: video projector to display the countdown time.

Tip

Video Projector and Sound System (optional): using a video projector and a sound system for music during the challenge (timing out a 18-minute playlist) to countdown time, e.g. time ends when the last song is over.

Step 3: Delivering Clear Instructions

- Clarification of goals and rules of the Marshmallow Challenge.
- Using a presentation to introduce the challenge as well as to visually reinforce the instructions.

Step 4: Starting the Challenge

Starting the countdown clock (and the music) with the start of the challenge.

- **Walking around the Room:** It's amazing to see the development of the structures as well as notice the patterns of innovation most teams follow.
- **Reminding Teams of the Time:** Countdown the time. Usually, 12 minutes, 9 minutes (half-way through), 7 minutes, 5 minutes, 3 minutes, 2 minutes, 1 minute, 30 seconds and a ten-second count down are called.
- **Calling Out How the Teams are Doing:** Let the entire group know how teams are progressing. Call out each time a team builds a standing structure. Build a friendly rivalry. Encourage people to look around. Don't be afraid to raise the energy and the stakes.
- **Reminding Teams that Holders will be Disqualified:** Several teams will have the powerful desire to hold on to their structure at the end. Usually because the marshmallow, which they just placed onto their structure moments before, causing the structure to buckle. The winning structure needs to be stable.

Step 5: Finish the Challenge

After the clock runs out, ask everyone in the room to sit down so everyone can see the structures. Likely, just over half the teams will have standing structures.

- **Measuring the Structures:** From the shortest standing structure to the tallest, measure and call out the heights.
- **Identification of the Winning Team:** Ensure they get a standing ovation and a prize (if you've offered one).
- **Wrapping up with the Lessons of the Marshmallow Challenge:** Deliver the attached presentation or just describe some of the key lessons of the marshmallow challenge:
 - **Kids do Better than Business Students:** On virtually every measure of innovation, kindergarten kids create taller and more interesting structures.
 - **Prototyping Matters:** The reason kids do better than business school students is that kids spend more time playing and prototyping. They naturally start with the marshmallow and stick in the sticks. The Business School students spend a vast amount of time planning, then executing on the plan, with almost no time to fix the design once they put the marshmallow on top.

Involvement of External Actors

External actors could get involved through the role of the observer during the challenge and in the reflection section after the challenge as discussants. Having an external observer who does not participate in the challenge might bring additional insights and perspectives.

Time

The challenge can be part of a regular lesson or implemented as separate session/class. Each challenge has a duration of 18 minutes, but a total time frame of 45-60 minutes has to be counted in. If you would like to assign credit points, you can assign a maximum of 0.25 ECTS.

Assessment

None.

Content

Marshmallow Challenge

Building teams of four people. Within 18 minutes each team must try to build a freestanding structure with spaghettis, a tape, a string, and a marshmallow. The tallest structure wins.

- **Building the Tallest Freestanding Structure:** The winning team is the one that has the tallest structure measured from the table surface to the top of the marshmallow. That means the structure cannot be suspended from a higher structure, like a chair, ceiling or chandelier.
- **The Entire Marshmallow must be on top:** The entire marshmallow needs to be on the top of the structure. Cutting or eating part of the marshmallow disqualifies the team.
- **Using as Much or as Little of the Kit:** The team can use as many or as few of the 20 spaghetti sticks, as much or as little of the string or tape. The team cannot use the paper bag as part of their structure.
- **Breaking up the Spaghetti, String or Tape:** Teams are free to break the spaghetti, cut up the tape and string to create new structures.

- **The Challenge Lasts 18 minutes:** Teams cannot hold on to the structure when the time runs out. Those touching or supporting the structure at the end of the exercise will be disqualified.

Reflection

Reflection afterwards about:

- Who tends to do the worst and why?
- Who tends to do the best and why?
- What improves performance and what does not?
- What was challenging during the competition and what was easy?

References

Wujec, T. 2015. *Marshmallow Challenge*. Design Exercise, TED. Retrieved from <http://www.tomwujec.com/design-projects/marshmallow-challenge/>. 06.04.2017.

Paper Plane Competition

Overview

Students can participate individually, in teams, or as a class in the Paper Plane Competition. Students can choose to design one out of two types of paper planes and compete in two categories: Distance and Time.

- **DISTANCE:** The paper plane which flies the furthest (measured in cm).
- **TIME AIR:** The paper plane which stays in the air the longest (measured in seconds and hundredths of a second).

The module fosters team-building and social skills and trains students in prototyping. Again, social and interpersonal skills in the context of entrepreneurial activities are highlighted within this module.

Prototyping is a crucial factor for every entrepreneur, especially at the beginning when the company is founded, and afterwards when crises are ahead. Practical skills to produce goods and services are crucial in order to run a company successfully. For entrepreneurs it is essential to recognize new trends on the market, as the market changes steadily. Therefore, entrepreneurs should always keep up to date to new developments and advances in technology which can probably disrupt the field and should be therefore familiar with prototyping which builds the base for innovating.

Entrepreneurial Competences

- Self-Awareness & Self-Efficacy
- Mobilizing Resources
- Mobilizing Others
- Taking the Initiative
- Planning & Management
- Coping With Uncertainty, Ambiguity & Risk
- Working With Others
- Learning Through Experience

Learning Outcomes

The commercialization of inventions and innovations is still hard for most of the prospective entrepreneurs and start-ups. One main reason for that is that we don't try or don't try hard enough. Testing inventions and ideas on the market and evaluating the possibilities of making money are often ignored. The best example here might probably be the internet. The testing of inventions for its money-making possibilities is essential (Reece, 2010).

As innovation comes in many different forms and not just through formal education, the goal of the paper plane competition is to stimulate out-of-the box thinking, trying a non-traditional path to reach students. Creativity, as it is required for the paper plane competition, stimulates innovation effectively.

Students should be trained in analysing and solving problems that span an array of disciplines and whose scale ranges from the global to the individual. As students are probably very unfamiliar with the topic of aerodynamics, a first challenge will already be the access to data and the research in the field before starting.

Furthermore, collaboration is seen as the key to success which should be transmitted through the competition among students.

Finally, the paper plane competition is a metaphor for that you can fail on every single attempt, but you are never defeated until you quit (Powell, 2017).

The learning outcomes mentioned here should be revealed in the reflection section after the competition by the teacher.

Prerequisites

None.

Preparation of the Teacher

The instructor is responsible for checking the materials used in the competition and makes sure that only allowed materials are use. Cardboard planes, as well as paper airplane kits are not allowed.

Needed Materials:

- Venue, e.g. classroom with tables
- Participants in teams or individuals
- Four sheets of copy paper (DIN A4) per team

Facultative:

- One standard paper clip
- 7.5-8 cm of tape
- A drop of glue
- Three staples
- Measuring tape
- Stopwatch (mobile phone)
- Incentive, e.g. symbol, food, money etc. (optional)
- Something to mark the starting line (e.g. coloured tape etc.)

The instructor should encourage students to research about aerodynamics before they begin to design their own paper planes. Possible is also the provision of research materials as e.g. hand-outs.

The instructor hands out the DIN A4 copy paper sheets to each team/individual and explains that certain materials (glue, tape etc.) may be used if desired, but are not required.

Instructors should allow students to work on the paper plane as long as they see fit.

Finally, the instructor should summarize the lessons learned during the paper plane competition (see Learning Outcomes).

Involvement of External Actors

External actors could get involved through the role of the observer during the challenge and in the reflection section after the challenge as discussants. Having an external observer who does not participate in the challenge might bring additional insights and perspectives.

Time

The challenge can be part of a regular lesson or implemented as separate session/class. A total time frame of 45-60 minutes has to be counted in.

All teams (competitors) should have the same amount of time to complete the paper plane competition. There is no minimum or maximum amount of time specification, therefore the instructor is free to choose it deliberately.

If you need to assign credit points you can assign up to 0.25 ECTS.

Assessment

None.

Content

Paper Plane Competition

Before starting to design a paper plane, students have to do research about the basics of aerodynamics and flight.

Students have to design paper planes in teams or individually and compete in one out of two categories which they can choose:

1) **DISTANCE:** For the distance category each student/team throws his or her paper plane while the instructor records distances in cm. All distances must be measured from the starting line to the point where the plane first touches the ground – not the final resting place if it slides! Each student/group has up to three tries.

2) **TIME AIR:** For the time air category, each student/team throws his/her/their paper plain while the instructor times the flights with an accurate stopwatch. Time is reported in seconds and hundredths of second. Again, each student/team has up to three tries.

At the end of the competition winners are determined and announced. If an incentive has been offered it is distributed to the best teams/individuals.

TIP

To make the competition more difficult the **left-hand-only rule** can be introduced where teams are allowed to use their left hands only. This scenario forces to collaborate even closer within teams.

Reflection

Reflection afterwards about:

- Who tends to do the worst and why?
- Who tends to do the best and why?
- What improves performance and what does not?
- What skills are needed?
- What was challenging during the competition and what was easy?

References

Reece, D. 2010. *The Telegraph: Paper plane sends message to entrepreneurs*. November 12, 2010. <http://www.telegraph.co.uk/finance/comment/damianreece/8127510/Paper-plane-sends-message-to-entrepreneurs.html> (Accessed 11.05.2017).

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Scholastic. 2017. *Hold a paper airplane contest*. <https://www.scholastic.com/teachers/collections/teaching-content/hold-paper-airplane-contest/> (Accessed 11.05.2017).

Collaboration Game

Overview

The collaboration game is a team building game and illustrates a Prisoner's Dilemma which demonstrates whether people show cooperative or competitive behaviour in a semi-serious environment.

The collaboration game provides students with experiences of fundamental dynamics of teamwork. Students can experience the power of mutual trust and collaboration and learn how cooperation with competitors can lead to even better results/outcomes.

The collaboration with stakeholders and the mutual trust is a crucial element for every entrepreneur because it is essential in achieving valuable collaborative outcomes.

Entrepreneurial Competences

- Ethical & Sustainable Thinking
- Self-Awareness & Self-Efficacy
- Financial & Economic Literacy
- Mobilizing Others
- Taking the Initiative
- Planning & Management
- Coping With Uncertainty, Ambiguity & Risk
- Learning Through Experience

Learning Outcomes

The collaboration game illustrates a Prisoner's Dilemma. The dilemma is that prisoners may confess when they better should not, and that they may fail to confess when they better should do so.

- The collaboration game explores the issues of risk and trust between team members and the effects of trust betrayal.
- The collaboration game demonstrates the effects of competition between teams.

- The collaboration game demonstrates the potential advantages of a collaborative approach to problem solving.
- Purposes have to be established for any activity.

Students should learn how an effective collaboration and cooperation with competitors can lead to better outcomes. In this context students should especially observe and learn about the dynamics of trust and how important a trustful relationship between the cooperating parties is.

Prerequisites

None.

Preparation of the Teacher

1. The teacher should get familiar with the game beforehand. Ideally, the teacher plays a pilot round in order to understand the processes.
2. The teacher prepares the room with the required resources (see below).
3. Short introduction and explanation of the game in class. The teacher provides background about the game and the experiencing of a simulation which goes back to an interrogating trick of prisoners (prisoners are separated and one of them is told that the other confessed, and that the best remaining solution is to also confess, otherwise he will be punished with more years because of dishonesty and inadequate cooperation).
4. Important however, is to not yet reveal the objective of the exercise (cooperation).
5. The teacher has to split up class into two teams, e.g. team A and team B.
6. Afterwards each team gets an instruction set (prepared by the teacher beforehand, see examples below) from the teacher and the game starts.
7. The teacher coordinates rounds as well as breaks. He should facilitate a flux of cooperation and competition in the teams to make them feel the emotional rollercoaster. In the plenary discussion teachers can make students reflect upon this moments, connecting them to real life situations.
8. The team with the highest positive score is declared as the winning team from the teacher. The introduction of an incentive is possible and free of choice.
9. The teacher guides the discussion in the plenary review after the game.

Involvement of External Actors

External actors could get involved through the role of supporters during the game, as well as after the game in the reflection section as discussants. Having an external actor, e.g. businessman, entrepreneur etc. who can highlight and explain the power of trust in collaborations from a practical point of view, talking about real-life happenings will increase the learning effect.

Time

Options:

1. As integration in a regular lecture, during class – 0.25 ECTS.
2. As 1-day workshop – 0.25 ECTS.

Assessment

None.

Content

Many companies see the advantages of collaboration as gaining new insights, reaching new markets, reducing costs, fighting competitors and increasing profits. Nevertheless, only a minor number of companies really focus on collaboration as a capability, or on the establishment of trust standards that can simplify and accelerate collaboration.

Furthermore, individuals, as well as companies are often more concerned with winning than achieving the optimum result, and prefer solo runs therefore. On the other hand, they are also often afraid of cooperating and the risk it involves.

Indeed, trust in business is a complex issue as it is an interplay of different factors as integrity (honesty, ethics), competences (intelligence, capabilities), commitment and perceptions (instincts, fears) and costs efforts. When collaborating in practice, trust is often not demanded and neither presumed from the opposite partner. However, research has shown that companies which consider trust as an essential element of collaboration are actually profiting from more fruitful relationships (The Economist Intelligence Unit, 2008).

The objective of the collaboration game is the achievement of a more cooperative behaviour between team members who are pursuing shared goals. Following this, the game illustrates a Prisoner's Dilemma which demonstrates whether people show cooperative behaviour (win-win) or selfish and competitive behaviour (win-lose) in a situation which offers the possibility of both.

In the game, the actual behaviour is compared with the expressed intentions of participants. Hence, if one team follows a win-win approach it should be equally concerned about the fulfilment of the needs of the other party in any agreement.

Required Resources

- Max. 16 people, 2 teams and max. 8 per team. If there are more people/students, four groups should be formed, running two rounds. In the first round, teams A&B are players and teams Y&Z observers. In the second round Y&Z are players and A&B observers.
- Venue with enough open space for the two teams to meet separately without interrupting or disrupting each other.
- In the centre of the room two chairs are placed where representatives meet and face each other to negotiate.

Game Setup

- Two teams, e.g. A and B.
- Teams choose if they want to play either red or blue.
- Scores can be found on score tables which are distributed (shown).
- The game consists of 10 short rounds and teams compete with each other.
- The first 8 rounds have a maximum duration of 3 minutes each.
- Teams can have a conference via team representatives with the opposite team after round 4 (agreement of both teams needed).
- Another conference is possible (max. 3 minutes), after round 8 (agreement of both teams needed).
- Round 9 and 10 score double and have a duration of 5 minutes each.
- The team with the highest positive score is the winner.

Process

1. Four rounds are played independently without interaction to the other team - just transmission of decisions. Each group decision and score is announced at the end of each round from the teacher.
2. A pause to talk to each other is allowed if both sides want so.
3. Then the next four rounds are played independently.
4. Another pause is possible.
5. Two final rounds where the score counts double.

GROUP A	GROUP B	SCORE A	SCORE B
RED	RED	+3	+3
RED	BLUE	-6	+6
BLUE	RED	+6	-6
BLUE	BLUE	-3	-3

ROUND	COLOR PLAYED		SCORE		CUMULATIVE SCORE	
	A	B	A	B	A	B
1						
2						
3						
4						
CONFERENCE (IF TEAMS BOTH AGREE)						
5						
6						
7						
8						
CONFERENCE (IF TEAMS BOTH AGREE)						
9						
10						
PLENARY REVIEW						

Plenary Review

- In a plenary both groups meet and discuss, together with the teacher about their experiences.
- The teacher announces the total points of the teams and the sum of both groups is compared to the maximum possible outcome (72 points).
- The facilitator leads the discussion about trust and the relative merits of collaboration versus competition.

Questions for the Plenary Review

- Did your attitude to the game change between wanting to win and wanting to collaborate at any point? If yes, when and why?
- Was there a difference in your approach between the first 4 rounds, second 4 rounds and the final 2?
- How did the conferences (break where interaction was possible) went?
- What did you learn about yourself, your team members and the competing team?
- When is it ok to focus on winning, when not? What is the problem with pursuing a winning strategy?
- How did it feel to win? / How did it feel to lose?
- If you would play the game again, what would you do differently?

References

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