



FAST

Promote
Female
Start-ups
in STEM

Activities to Boost Skills ¹⁰²

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Introduction

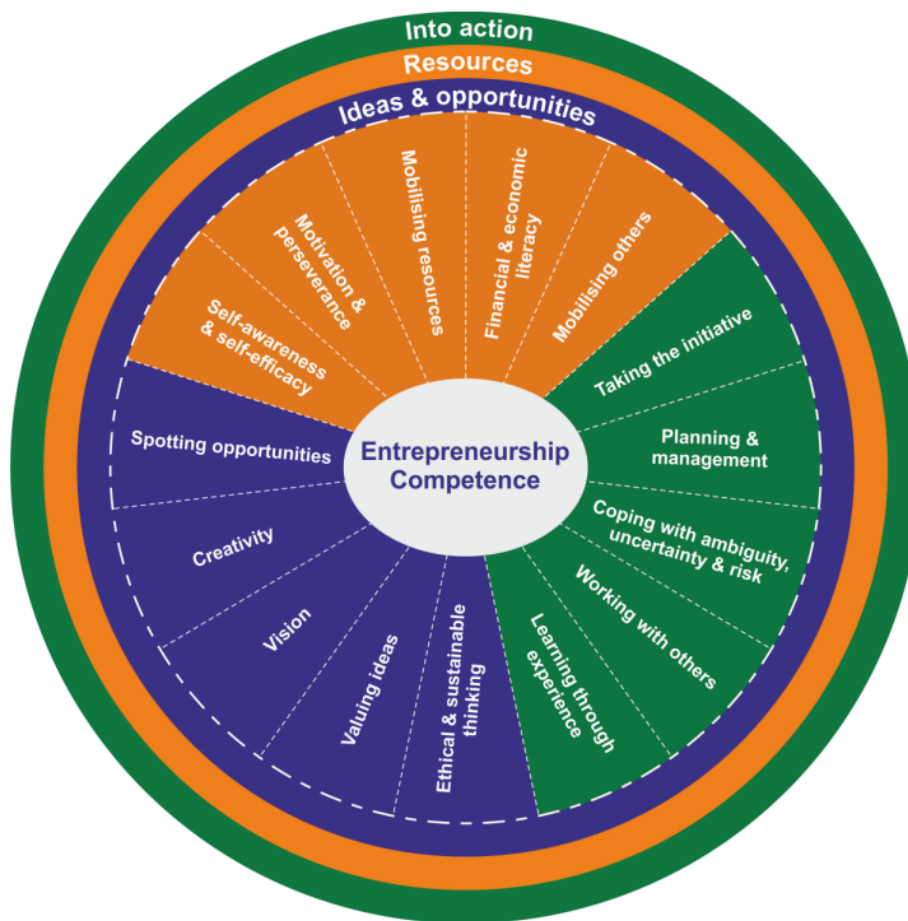
>> FA-ST ACTIVITIES TO BOOST ENTREPRENEURIAL SKILLS AND MOTIVATION.

The main purpose of this compilation of knowledge is to offer a Blended learning program composed by theoretical components and activities aimed **at increasing young women transversal skills and motivation, nurturing their capacity for self-determination, self-promotion and growth, managerial skills, and other skills essential to those willing to start a business.**

The program will insist on inner motivation and ability to endure and will be assessed during practical exercises. The contents of this program are intended to be delivered with the support of an educator/mentor. It is expected that a positive evaluation by the educator/mentor is issued before passing on to the next step. The assessment will cover both STEM literacy and entrepreneurial skills capacity/acknowledgement and the learner's evolution throughout the completion of each presented Unit.



“Entrepreneurship is when you **act** upon **opportunities and ideas** and **transform** them into **value** for others. The value that is **created** can be financial, cultural, or social.”



In this manual, you will find some helpful insights on how to push for completing those initial hard meters of an entrepreneur’s voyage. Focus on these concepts and try to always visualize them throughout this experience.

Ideas and Opportunities

Action & Resources

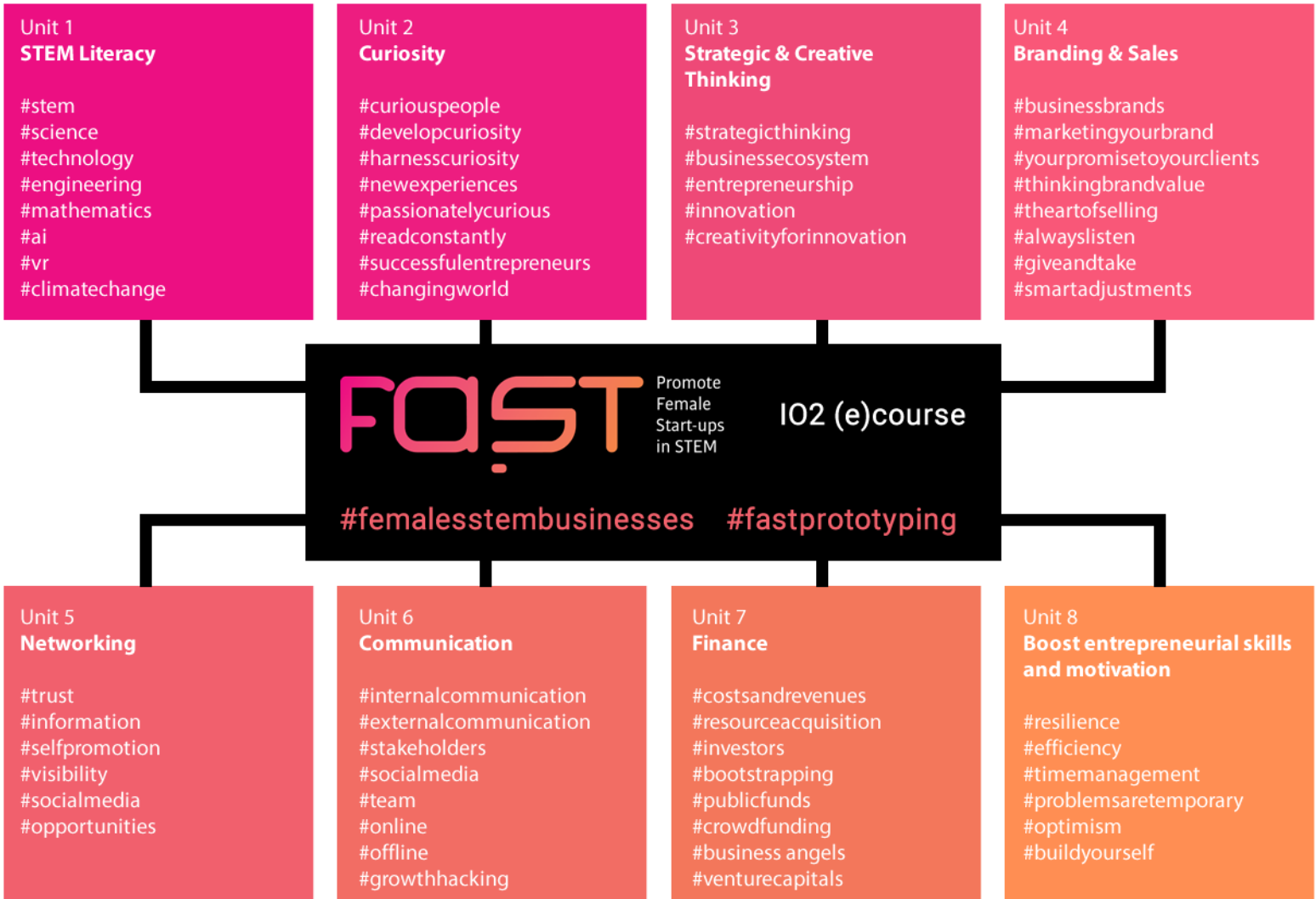
Value creation

Go for it!!!

Entrecomp
Conceptual
model.

Table of Contents

Content	Page
Unit 1 STEM Literacy	5
Unit 2 Curiosity	25
Unit 3 Strategic & Creative Thinking	32
Unit 4 Branding & Sales	45
Unit 5 Networking	53
Unit 6 Communication	63
Unit 7 Finance	72
Unit 8 Resilience / Efficiency / Time Management	83



Unit 1 **STEM** Literacy

#stem

#science

#technology

#engineering

#mathematics

#ai

#vr

#climatechange

1. Introduction to STEM Literacy

Science, Technology, Engineering and Mathematics (STEM) is used to improve competitiveness in science and technology development but also in the interconnection between sciences, arts and especially much related to nowadays' business administration. Moreover, there are specific implications for workforce development, national security concerns and immigration policy which impact on any business. The *science* in STEM typically refers to two out of the three major branches of science: natural sciences, including biology, physics, and chemistry, and formal sciences, of which mathematics is an example, along with logic and statistics; the third major branch of science, social science such as: psychology, sociology, and political science, are categorized separately from the other two branches of science, and are instead grouped together with humanities and arts to form another counterpart acronym named HASS - Humanities, Arts, and Social Sciences. In the United States/ United Kingdom various levels of the education system, the term *science* refers primarily to the natural sciences, with mathematics being a standalone subject, and the social sciences are combined with the humanities under the umbrella term social studies. [1]

There is a general consensus that STEM literate people can contribute to societal and economic needs. But, there is a difference between literacy and being literate. STEM literacy should not be viewed as a content area but as a deictic means (composed of skills, abilities, factual knowledge, procedures, concepts, and metacognitive capacities) to gain further learning. In brief literacy definitions in STEM regards the (1) cognitive, (2) affective, and (3) psychomotor learning theory that can be blended in order to make great business and life decisions. [2].

1.1 Definition of a STEM curriculum

STEM is a curriculum based on the idea of educating from four specific disciplines — science, technology, engineering and mathematics, in an interdisciplinary and applied approach. Rather than teach the four disciplines as separate and discrete subjects, STEM should integrate them into a cohesive learning paradigm based on real-world applications. [3]

However, STEM literacy involves the transdisciplinary integration of STEM disciplines and the tools and knowledge necessary to apply STEM concepts to solve complex problems.” [4].

1.2. STEM skills in starting a business

Research on women in STEM focused mostly on women’s educational choices (Stout et al., 2011; Simon et al., 2016), women faculty (Xu, 2011) and women in leadership positions (Eagly & Carli, 2007). [5]

However, no matter the gender, STEM skills are critical to innovation and in creating a competitive edge in knowledge-intensive economies.

There is strong evidence that people in STEM occupations have increasingly grown from 2003 to 2013 by 12%, three times as much as total EU-28 employment. STEM occupations now account for 7% of all jobs.

- Much of this growth occurred from 2003 to 2008. There are signs of a recent upturn, which is creating recruitment difficulties in most EU-28 countries. Demand for STEM skills is anticipated to increase in the short and medium term. Whilst the numbers of STEM students and graduates are both increasing, some employers report that they are not ‘job ready’ and do not possess the ‘right’ skills, especially soft skills. ‘Core’ STEM subjects typically include: Mathematics; Chemistry; Computer Science; Biology; Physics; Architecture; and, General, Civil, Electrical, Electronics, Communications, Mechanical, and Chemical Engineering”. [6]

When comes to starting a business application however, STEM skills will improve at least into the following skills [7]:

- Creativity spurring
- Inquiry Skills, Critical Thinking or Reasoning
- Math & Science Skills, Problem Solving, Statistical Analysis
- Engineering-Design Thinking,
- Technical Skills application and

- Collaboration, Teamwork, and interdisciplinary innovation.

In upgrading STEM skills in the upcoming business setup, we have identified upcoming trends for future business that rely on the more specific STEM areas:

1. Artificial Intelligence and Machine Learning [8]

2. Maths and Computing

3. Engineering and Physics

4. Climate Change – environment acknowledgement (Global Warming, Health and Safety)

1.3. Curriculum's Learning Outcomes- general overview

We count on six known general characteristics of a great STEM skills apprehension that apply to businesses run by potential women entrepreneurs.

1. STEM training focusses on real-world issues and problems and addresses real social, economic, and environmental problems while seeking solutions, especially valid for school drop-out people in search of a job or creating their own business. See Real World STEM Problems for some suggestions for projects that training participants (students) might focus on.
2. STEM training guided by the engineering design process (EDP) provides a flexible process that takes students from identifying a problem, or a design challenge, to creating and developing a solution. In this process, students define problems, conduct background research, develop multiple ideas for solutions, develop and create a prototype, and then test, evaluate, and redesign them. This sounds a little like the scientific method, but during the EDP, teams of students try their own research-based ideas, take different approaches, make mistakes, accept and learn from them, and try again until a solution is found.

3. STEM training immerses students in hands-on inquiry and open-ended exploration, where the path to learning is open ended, within constraints. (Constraints generally involve things like available materials.) The students' work is hands-on and collaborative, and decisions about solutions are student-generated. Students communicate to share ideas and redesign their prototypes as needed. They control their own ideas and design their own research by using also soft skills.
4. STEM training involves students in productive teamwork. It becomes exponentially easier if all STEM trainer works together to implement teamwork, using the same language, procedures, and expectations for students. If you want a jumpstart on building specific student-teamwork skills.
5. STEM training applies rigorous math and science content your students are learning. In STEM training, the instructor should purposely connect and integrate content from math and science courses. Students can then begin to see that science and math are not isolated subjects, but work together to solve a business or real problem. This adds relevance to their math and science learning. Best case scenario: Involve an art teacher as well. Art plays a critical role in product design. Teams will want their products to be attractive, appealing, and marketable. When the arts are added, the STEM acronym becomes STEAM.
6. STEM training allows for multiple right answers and reframe failure as a necessary part of learning. Sometimes I designed my science labs so that all teams would replicate the same results or verify or refute a hypothesis. Students were studying specific science content and the whole idea was to provide insight into cause and effect by manipulating variables.

STEM classes, by contrast, always provide opportunity for multi-dimensional and creative learning. When designing and testing prototypes, teams may often struggle and fail to solve the problem, which helps them learn from mistakes. [9].

1.4. Specific Learning Outcomes

On each o of the four categories of STEM there would be several learning outcomes and skills emerging.

1. Artificial Intelligence and Machine Learning

Learning Outcomes:

- Understanding how AI works can help adapt business behavior (<https://ai.google/education/>)
- Identifying AI and Machine learning systems that can help in various business settings.
- Understanding problem solving and teamwork via AI.

Introduction:

In [8] Muro said exposure to AI does not necessarily mean job loss, and AI might just supplement work. But, he said that AI exposure will likely lower wages and lead to job replacement if human workers can no longer bring "extra value" that AI can't.

AI Examples application

Students Group Activity 1. The use of AI in a Beauty salon

In a public consumption place, a unified user identity verification system is required. Considering the tediousness of manual login of users and the inconsistency of fingerprint identification and other private identity information, face recognition is used to automatically verify the matching user identity information. The personal information collected by each user ID needs to be synchronized to all devices in the beauty scene and member home devices

AI technologies utilized:

- Face recognition + member operation management background
- Face photo capture + picture beautification + cloud picture management library
- Virtual makeup test: for beauty products, nail programs, etc.
- Knowledge question answering system (user portrait + NLP + knowledge picture + knowledge rule base)
- Computer vision technology: Recognize and detect skin condition, hand shape, facial features

Advised interactive activities:

After watching the following videos, participants can identify in groups of 3 to 4 people possible mistakes and risks and find alternative solutions based on other technologies.

1. Watch the video: “How augmented reality is playing a role in the beauty industry”

Link: <https://www.youtube.com/watch?v=TFezMcb0cvI> (5 min)

2. Try to use AR virtual makeup: <https://virtual-cosme.net/kanebo-global/global/zh-cn/>
(Improve participants' enthusiasm for AI and use it in teams and interactively, create a beauty context, while participants can take a photo of themselves and operate it on the platform) (10 min)

Students Group Activity 2. Understanding AI applications

1. The intelligent piece of paper

Artificial intelligence is a bit of a misnomer, scientists admit. True AI is still at least a decade off what we're seeing now may be better described as "augmented intelligence," or the use of machines to augment what humans are capable of. Instead of pre-programming a computer to perform a specific task, we're now able to feed it data and let it discover patterns and learn tasks on its own. In other words, we have machines that can make predictions — and get better at them — based on a library of data. That's still a far cry from a robot that can think for itself.

This activity uses a game of Tic Tac Toe to demonstrate the difference between human and artificial intelligence. The game pits a human player against a piece of paper "pre-programmed" with instructions. As students watch the paper respond to each move, they discover how, with the right programming, a computer can adapt to human responses and appear to equal, or even best, a human opponent.

2. The Turing test

Rather than attempt to measure a computer's ability to think, mathematician Alan Turing argued that a more practical way to assess a machine's intelligence is to test its ability to mimic human behavior. To pass the Turing test, a machine must be able to fool a human into thinking it is also human.

Students can act out their own version of the Turing test using a list of questions and answers. You'll need three volunteers. One will act as the computer, responding to questions using only the answers provided, while another will act as the human, answering questions as they see fit; both should be located outside the classroom. The third volunteer will convey their answers back to the class, which must then determine which is the human and which is the computer.

3. How facial recognition works

Facial recognition is just one example of what machine learning can achieve — and it's one of the more controversial. Drawing from a vast pool of digital images, computers can now identify individuals based on facial patterns. In China, it's already being used to identify suspects and even auto-text tickets to jaywalkers. While the ethical implications of such technology are enormous, it also makes a great entry point for teaching kids how machine learning works.

Since a computer can't "see" a photo the way a human does, how can it extract meaningful data from one photo and compare it with data from another? In this activity, students simulate a facial recognition algorithm by breaking down images of Disney characters into a list of features they can then use to glean the identity of a mystery character.

2. Maths and Computing

Learning Outcomes:

- Understanding equations and statistics
- Applying maths in business situations
- Preparing market Research for a particular product

Introduction:

It includes computation and statistical skills, adaptable to understanding the connection to other aspects of business, such as finance and economics, market movement for products and services, labor perspectives.

Maths and Computing using in Beauty Industry, the use of Big data

Big data helps to accurately determine the market positioning of the beauty industry

Successful brands are inseparable from accurate market positioning. It can be said that a successful market positioning can double the rapid growth of an enterprise's brand, and market data analysis and research based on big data is the first step for an enterprise's brand positioning. If the beauty industry companies want to get a slice of the smokeless market, they need to construct a big data strategy, broaden the breadth and depth of the beauty industry research data, and understand the beauty industry market composition, market segment characteristics, and consumer demand from big data and many factors such as the status of competitors, on the basis of scientific and systematic information data

collection, management, and analysis, put forward better solutions and suggestions to solve problems, ensure that the brand positioning of the company is unique, and improve the brand positioning of the company.

Industry acceptance.

If an enterprise wants to enter or develop a market for the beauty industry in a certain region, it must first carry out project evaluation and feasibility analysis. Only through project evaluation and feasibility analysis can it be finally determined whether it is suitable to enter or develop this market. If so, what is the population of this area? How is the consumption level? What is the customer's consumption habits? How is the market's perception of products? What is the current market supply and demand situation? What is the public's consumption preferences, etc. The massive amount of information behind these questions constitutes the big data of the beauty industry market research, and the analysis of these big data is our market positioning process.

Enterprises need to use huge manpower, material resources and energy to open up new markets. If the market positioning is not accurate or there is a deviation, the later losses to investors and enterprises themselves are huge or sometimes devastating. The importance of market development in the beauty industry. Only if the positioning is accurate or even precise, can the company build products that meet market demands and make itself invincible in the competition. However, to achieve this, a sufficient amount of information data must be available for analysis and judgment by researchers in the beauty industry. Under the traditional circumstances, the collection of analytical data mainly comes from statistical yearbooks, industry management department data, related industry reports, industry expert opinions and territorial market surveys. These data often have defects such as insufficient sample size, time lag and low accuracy. The amount of information that researchers can obtain is very limited, making accurate market positioning a data bottleneck. With the advent of the era of big data, the use of data mining and information collection technology can not only provide researchers with sufficient sample size and data information, but also establish a mathematical model based on big data to predict the future market. Of course, relying on traditional manual data collection and statistics is obviously difficult to meet

the data requirements in the big data environment, which requires the help of automated data collection tools from relevant data companies (such as Shenzhen Lesi Software).

Big data has become a marketing tool for the beauty industry

Today, from the popularity of search engines and social networks to smart mobile devices with one machine, the total amount of information on the Internet is skyrocketing at an extremely rapid rate. Every day on Facebook, Twitter, Weibo, WeChat, forums, news reviews, e-commerce platforms to share a variety of text, photos, videos, audio, data and other information up to tens of billions or even hundreds of billions of items, these information covers, Mass information such as business information, personal information, industry information, product experience, product browsing records, product transaction records, product price dynamics, etc. These data can form the big data of the beauty industry through clustering. Hidden behind it is the market demand and competitive intelligence of the beauty industry, which shows a huge wealth value.

In the marketing work of the beauty industry, whether it is products, channels, prices or customers, it can be said that each job is closely related to the collection and analysis of big data, and the following two aspects are the top priorities in the marketing work of the beauty industry.

The weight. One is to obtain data and statistical analysis to fully understand the market information, grasp the business conditions and dynamics of competitors, and know the market position of the product in the competitive group, to achieve the purpose of "knowing each other and knowing yourself, fighting hard"; second, enterprises By accumulating and digging up consumer profile data in the beauty industry, it is helpful to analyze the consumer's consumption behavior and value interests, and it is better to serve consumers and develop loyal customers.

Taking the beauty industry's analysis of customers' consumption behavior and interest trends as an example, if an enterprise is usually good at accumulating, collecting and collating information about consumers' consumption behavior, such as: consumers' cost of purchasing products, product channels selected, and preferences Product type, product life cycle, purpose of purchasing product, consumer's

family background, working and living environment, personal consumption concept and values, etc. If the company collects these data and establishes a large consumer database, it can use statistics and analysis to grasp the consumer's consumption behavior, interest preferences and product market reputation status, and then based on these summarized behaviors, hobbies and product reputation status To formulate targeted marketing programs and marketing strategies, which are good for consumers, then the marketing effects brought by it can be imagined. Therefore, it can be said that big data contains a surprisingly successful force. If enterprise managers are good at using it in marketing, it will become an invincible weapon in the beauty industry's market competition.

Students Group Activity:

After watching the following videos, participants can identify in groups of 3 to 4 people possible mistakes and risks and find alternative solutions based on other technologies.

1. Watch the video, “Big Data In 5 Minutes | What Is Big Data?| Introduction To Big Data |Big Data Explained |Simplilearn” :
<https://youtu.be/bAyrObI7TYE?list=TLPQMjcwODlwMjAvbQwUU8tQvg> (5 min)
2. Watch the video, “Computer Science is Changing Everything”Link:
<https://www.youtube.com/watch?v=QvyTE1wyOY> (5 min)

3. Engineering and Physics

Learning Outcomes:

- Understanding basic physical phenomena
- Identify where physics and engineering work best in various industries and the ultimate inventions and applications in business and not only

- Test various engineering concepts, or even create and develop a prototype.

Introduction

Physical Cosmetology-Advanced technologies for natural Beauty

Physics and beauty use physical phenomena that exist in nature itself, combined with high-tech technical methods, to carry out safe and effective long-term management of skin for beauty purposes. It is the application of man to nature, so it is also called post-natural skin beautification.

For example, students can track the understanding of the following concepts: thermal expansion and contraction, ion atomization, high pressure oxygen injection, vacuum negative pressure, biological magnetic wave, natural optics and so on.

Students Advised Activities:

1. Watch the video, “8 Ways To Make Money In The Beauty Industry | Profit Without Opening A Salon | Motivational Video” Link: <https://www.youtube.com/watch?v=OzWdjgiMW0I> (10 min)

Engineering using in cooking

Four smart restaurants without cashiers, waiters, chefs and buyers.

Advantages: Reduce labor costs and improve operational efficiency, and the marginal cost of system development after operation will be reduced.

Disadvantages: high research and development costs.

After watching the following videos, participants can identify in groups of 3 to 4 people possible mistakes and risks and find alternative solutions based on other technologies.

Advised Activity in Hospitality area:

1. Watch the video, “Vending Machine Restaurant in Japan” Link:
<https://www.youtube.com/watch?v=i677PxZWifM> (17 min)
2. Watch the video “Freshippo's Robot Restaurant 2.0” Link:
<https://www.youtube.com/watch?v=FFCPKmLAZb4> (2 min)
3. Watch the video Alibaba’s keyless and cashless hotel is straight out of the future | CNBC Reports
Link: <https://www.youtube.com/watch?v=rnGpSZmj-cA> (7 min)

4. Climate Change – environment acknowledgement (Global Warming, Health and Safety)

Learning outcomes:

- Understanding what is Climate Change and its causes, impact and effects
- Identify solutions to reducing global warming in daily activities and through businesses,
- Identify health problem related to climate change and seek solutions form STEM area
- Seek ways to identify risk and protect via safety various activities and businesses.

Introduction:

The impact of climate change on the national economy may be mainly negative. Agriculture may be one of the most sensitive sectors to climate change. Climate change will increase the instability of future agricultural production in our country and the output fluctuations will be large; The structure will change; agricultural production conditions will change, agricultural costs and investment will increase significantly. Climate warming will lead to changes in surface runoff, drought and flood disaster frequency, and water quality in some areas, especially the contradiction between supply and demand of water resources will become more prominent. The spread of infectious diseases that are sensitive to climate change (such as malaria and dengue fever) may increase; diseases and death rates associated with high-temperature heat wave weather will increase. Climate change will affect human living environments, especially in river basins and coastal lowlands and the most immediate threats to rapidly growing cities and towns are floods and landslides. Environmental problems such as water and energy shortages, waste

disposal, and transportation that humans are currently facing may also be exacerbated by high temperatures and rain.

Bad Influence-Japan faces food crisis

According to the BBC, after the Fukushima nuclear disaster, Japanese consumers also lost their trust in the authorities. Japanese farmers are getting older and fewer people.

Dr. Peñalanda of United Nations University of Yokohama said that more than 60% of Japanese consumers' calorie intake depends on imports. Japan relies on strong financial resources to import a large amount of food from the world market, but climate change may soon change this situation. "We don't know how long these countries can continue to export food to Japan cheaply. After the situation changes, Japan must find new suppliers as soon as possible."

Japan is a major consumer of aquatic products. The older generation of Japanese used to be the largest fish consumer group in the world. But the reduction in fish production will also change the dietary habits of the Japanese.

Scientists at the University of California, Santa Barbara, Hokkaido University, and the US Environmental Protection Association have simulated the effects of climate change on 915 fish species worldwide.

The study found that about 50% of the fish under study will migrate to other seas due to the warming of seawater, and the production of almost all fish will decline. The impact on fisheries in tropical coastal countries will be most severe.

To address the challenges posed by climate change, more effective fisheries management measures, including prohibiting overfishing and strengthening multilateral fishery cooperation, are needed to ensure that marine fish resources will continue to provide important food sources for the global population in the coming decades.

Students Group Advised Activity:

After watching the following videos, participants can identify in groups of 3 to 4 people possible future risks and find alternative solutions.

1. Watch the video, “What is Climate Change? | Start Here”. Understanding what is Climate Change and its causes, impact and effects. Link: <https://www.youtube.com/watch?v=dcBXmj1nMTQ> (7 min)
2. Watch the video, “The diet that helps fight climate change”, learn the solutions for the climate change by individual. Link: <https://www.youtube.com/watch?v=nUnJQWO4YJY> (6 min)

1.5 Students/ Trainers Assessment Example for the Unit 3:

Learning Outcomes	Assessment Rubric for 1. Artificial Intelligence			Weight
	Developing	Accomplished	Mastered	
Understanding how AI works can help adapt business behavior	Illustrates basic understanding of AI	Exhibits solid understanding AI	Demonstrates excellent understanding of AI	30
Identifying AI and Machine learning systems that can help in various business settings.	Can Identify very few model usages in business	Can Identify very few model usages in business	Can Identify many model usages in business	30
Understanding problem solving and teamwork via AI	Can solve very few problems in business	Can solve very problems in business	Can solve a variety of problems in business	30

Creativity/Innovation in the business idea	Exhibits certain creativity/innovation	Exhibits enough creativity/innovation	Exhibits high level of creativity/innovation	10
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Learning Outcomes	Assessment Rubric for 2. Maths and Computation			Weight
	Developing	Accomplished	Mastered	
Understanding equations and statistics	Illustrates basic understanding of maths and computation in business	Exhibits solid understanding of maths and computation in business	Demonstrates excellent understanding of maths and computation role in business	30
Applying maths in business situations	Attempts to apply part of these concepts	Shows how can apply few of these concepts	Successfully can apply these concepts	30
Preparing market Research for a particular product	Can prepare a basic market research	Can prepare market research	Can prepare a detailed market research	30
Creativity/Innovation in the business idea	Exhibits certain creativity/innovation	Exhibits enough creativity/innovation	Exhibits high level of creativity/innovation in	10

Learning Outcomes	Assessment Rubric for 3. Engineering and Physics	Weight
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	Developing	Accomplished	Mastered	
Understanding basic physical phenomena	Illustrates some understanding of basic physical phenomena	Exhibits good understanding of basic physical phenomena	Demonstrate excellent understanding of basic physical phenomena	30
Identify where physics and engineering work best in various industries and the ultimate inventions and applications in business	Attempts to apply part of these concepts	Shows how can apply few of these concepts	Successfully can apply these concepts	30
Test various engineering concepts, or even create and develop a prototype	Attempts to test part of these concepts	Can test few of these concepts	Successfully can test these concepts	30
Creativity/Innovation in the business idea	Exhibits certain creativity/innovation	Exhibits enough creativity/innovation in the business idea	Exhibits high level of creativity/innovation in the business idea	10

Learning Outcomes	Assessment Rubric 4. Climate Change–environment acknowledgement	Weight
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	Developing	Accomplished	Mastered	
Understanding what is Climate Change and its causes, impact and effects	Illustrates some Understanding of Climate change and the environment	Exhibits good Understanding of Climate change and the environment	Demonstrate excellent Understanding of Climate change and the environment	20
Identify solutions to reducing global warming in daily activities and through businesses	Can identify few solutions to the matter	Can identify a few solutions to the matter	Can identify many solutions to the matter	30
Identify health problem related to climate change and seek solutions form STEM area	Can identify few problems and solutions to the matter	Can identify a few problems and solutions to the matter	Can identify many problems and solutions to the matter	20
Seek ways to identify risk and protect via safety various activities and businesses.	Can identify few risks in business and suggest some protection	Can a few risks in business and suggest enough protection	Can identify all risks of a business and suggest much protection	20
Creativity/Innovation in the business idea	Exhibits certain creativity/innovation	Exhibits enough creativity/innovation	Exhibits high level of creativity/innovation	10

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[5] *Women Entrepreneurship* within Science, Technology, Engineering, and. Mathematics (*STEM*) fields".

Special Issue Editors: Katherina Kuschel – Wilfrid

Laurier https://www.springer.com/cda/content/document/cda_downloaddocument/CALL+FOR+PAPER

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Unit 2 **Curiosity**

#askquestions

#curiouspeople

#developcuriosity

#harnesscuriosity

#newexperiences

#passionatelycurious

#readconstantly

#successfulentrepreneurs

#worldchanging

1. Summary of the Unit

The one truthful common thing that all great leaders in the world have is **Curiosity**.

The hunger, the desire, the passion to always be acquiring knowledge and to actual learn new things or ways to improve “old” knowledge. There is absolutely no reason to have any doubt about this... all successful entrepreneurs are passionately curious. In fact, many of those entrepreneurs would say that being curious is more important than “simply” being intelligent. Whereas intelligent people have the talent of being able to process and remember information better, without other skills they suffer a handicap when it comes to applying that information. Studies have found that curious people don’t just want to understand how a problem came about, they want to know why it exists in the first place.

2. Learning Outcomes and Initial Self-Assessment

2.1 Learning Outcomes

- . Harness ones Curiosity for Success.
- . Giving an effective contribution to help one become a more engaged problem-solver by taking every bit of information given and finding a solution, even (most definitely will) if it means thinking outside the box.
- . Enhance one’s curiosity as it represents the desire to learn more, to experience more, to feel more and to become a better self-motivated curious person.

2.2 Initial Self-Assessment

- . We suggest that you take this initial self-assessment test to give you a vision of your “curiosity profile”: <https://hbr.org/2015/12/assessment-whats-your-curiosity-profile>

3. Content of the Unit

“I have no special talents. I am only passionately curious.” – Albert Einstein.

One must stand ground and passionately believe that Curiosity is attainable by practice. Unlike intelligence, curiosity can be nurtured and developed.

There are vastly different and equally valid pathways to nurture and evolve one’s curiosity, but this is the one we chose to present within our FAST project. To better getting a grasp of the different aspects to take into consideration, here is a list of 6 selected ways to help you develop your curiosity and kickstart your entrepreneurial journey:

1. Always ask questions.

The key to developing curiosity is to be always asking questions. Some people might be afraid of looking ignorant, but you must remember that being curious and being ignorant are two completely different things. The ignorant believe they have the right answer, even when it is wrong.

Accept the fact that you do not know everything. After all, the whole point of being curious is to fill the gaps in your knowledge.

2. Never be satisfied with the answers

The right questions are almost never open-and-shut cases. If you are asking questions where the answer ends in either “yes” or “no,” then you’re asking the wrong questions.

You need to be asking questions that begin with “how,” “what,” “when,” “where,” and “why.” Not just to other people but to yourself as well. Always challenge yourself and be introspective.

Be satisfied with more than just scratching the surface, do not be afraid to dig deep. Who knows what you will learn? Even when things seem to be going well, curiosity means always reevaluating solutions you have found in the past.

3. Be distracted.

Do not be afraid to let your mind wander when it needs to.

Your brain needs a diverse diet if you want to keep motivated and passionate about your work. Going at 100 percent, all the time, is a surefire way to just end up burned out and unfulfilled. So, let yourself be distracted every now and then.

If this sounds dangerously close to procrastination then do not fret, set a structured approach where you set aside an hour and do nothing but poke around on whatever it is you want to explore. The rule of thumb is: If you are learning something new then it is not procrastination.

4. Read constantly.

You need to always be reading if you want to nurture your curiosity.

It’s no secret that the majority of successful people in the world have extensive personal libraries. Books provide an exclusive gateway to a whole world of knowledge that you may have never even considered!

Challenge yourself by reading books in genres that you may not normally be interested in. Challenge the way you think by opening yourself up to someone else’s world and ideas.

“The more that you read, the more things you will know. The more that you learn, the more places you’ll go.” - Dr. Seuss

5. Learn a new skill.

If you have ever wanted to learn a new language, or how to dance, or just about any new skill, then you definitely should. Feed that part of you that craves new experience.

Multiple studies have proven time and time again that learning a new skill, regardless of what it is, will positively affect your brain. Learning a new skill, especially one that requires any sort of physical movement, improves your cognitive ability, your ability to learn, your memory and a whole host of other benefits, depending on the skill.

Plus, you will never know when that new skill you’re learning could come in handy for yourself or your business.

6. Don’t be afraid to fail

A key part of what sets curious people apart from others is that they are less likely to fear failure.

It might feel uncomfortable, but you should not ever be afraid to try something new because you are afraid that you might fail. If you are determined to stay on the path you are currently on, then never try anything new. But if you want to be different and find true success then you simply must leave your comfort zone.

Curious people look forward to failure because in failure you learn something new.

The knowledge that you, most of the times painfully, gather through failure, could very well be the thing that keeps you going and drives you to ultimate success.

Exercise:

BE CURIOUS AND LEARN FROM OBSERVING HUMAN BEHAVIOR

You've gone into the field in search of knowledge, meeting people on their home turf, watching and listening intently. Now synthesize all that data by creating an "empathy map".

TOOL: Empathy Map

PARTICIPANTS: Solo or groups of two to eight people

TIME: 30-90 minutes

SUPPLIES: Whiteboard or large flip chart, Post-its, and pens

INSTRUCTIONS:

1. On a whiteboard or a large flip chart, draw a four-quadrant map. Label the sections with "say," "do," "think," and "feel," respectively.
2. Write down each of your key observations from the field on one Post-it note and populate the "say" and "do" quadrants. Try color-coding, for example, using green Post-its for positive statements and actions, yellow for neutral, and pink or red for frustrations, confusion, or pain points.
3. When you run out of observations (or room) in those quadrants, begin to fill the "think and" and "feel" sections with Post-its, based on the body language, tone, and choice of words you observed. Use the same color coding.

4. Take a step back and look at the map as a whole. What insights or conclusions can you draw from what you've written down. What seems new or surprising? Are there contradictions or disconnects within or between quadrants? What unexpected patterns appear? What, if any, latent human needs emerge?

Unit 3 Strategic & Creative Thinking

#strategicthinking

#businessecosystem

#entrepreneurship

#innovation

#creativityforinnovation

1. Summary of the Unit

Once defined by time, space, and resource bundles, competition is increasingly determined by the quality of strategic thinking about the firm's opportunities, challenges, core competences, capabilities, and competitive arena. Executives have to navigate a constantly changing competitive arena that is no longer defined by physical or even digital dimensions; it encompasses the global networks and ecosystems within which the firm competes. These networks provide the firm with resources, alliance partners, and important information about market conditions. Referred to as 'business ecosystems,' the networks are the product of a long and evolutionary process that defines relationships among industry players. Creating, shaping, navigating, and exploiting business ecosystems requires entrepreneurial insight, coupled with strategic thinking. This thinking becomes evident in the novelty and speed of strategic actions, as well as the creativity of resource deployment and use. It also manifests itself in the creation of a new organization or venture that is capable of adapting and transforming itself as the forces of competition change.

2. Learning Outcomes and Initial Self-Assessment

2.1 Learning Outcomes

Thinking strategically, understanding a business on its own and a business ecosystem.

Introducing creativity as a drive force for innovation and acknowledging optimism as a strength and a potential threat.

2.2 Initial Self-Assessment

Strategic Thinking Self-Assessment

Part I: Assessment

Use this tool to assess your strategic thinking abilities. For each statement below, indicate how accurately the statement describes you. “1” indicates “Rarely,” “5” indicates “Usually.” Be sure to answer based on your actual behavior in real workplace situations. That way, you’ll have the most accurate assessment of your skills.

Statement	Rating
	Rarely
	Usually
	1 2 3 4 5
1. I ask questions about what's going on in my unit, company, industry, and wider business environment.	
2. I am able to adapt approaches and shift ideas when new information suggests the need to do so.	
3. I look for opportunities today that might generate valuable results tomorrow.	
4. I view challenges as opportunities.	
5. I welcome new ideas and opinions—even if they seem strange at first.	
6. I take criticism well by not reacting in a defensive manner.	
7. I work to broaden my knowledge, experience, and skill set.	
8. I seek other people's opinions.	
9. I anticipate how my actions will affect others around me.	

10. I question my own longstanding assumptions and encourage others to question theirs.	
11. I understand the forces influencing my group's performance.	
12. I know who my company's customers are and what they value.	
13. I know who my company's competitors are and what makes us different from them.	
14. I stay up to date on important trends affecting my company's industry and my group's operations.	
15. I objectively analyze situations.	
16. I evaluate the pros, cons, and implications of different courses of action.	
17. I grasp abstract ideas and put the "pieces" together to form a coherent picture.	
18. I generate a wide variety of options, visualize new possibilities, and formulate fresh approaches.	
19. I see patterns across unrelated events and information.	
20. I can sift out irrelevant from relevant information while deciding how to solve a problem or handle a challenge.	
21. I can often visualize new possibilities that others have trouble seeing.	
22. I try to generate multiple alternative courses of action while making important decisions.	
23. I compare the potential short- and long-term consequences of actions I'm considering.	

24. I consider whether improvements I'm making to my own group's operations may create problems for people in other parts of my organization.	
25. I stay focused on my objectives while handling multiple demands and competing priorities.	
Total score (Calculate your score by adding up the numbers for each of your responses.)	
Part II: Scoring Use the following table to interpret your score.	
Exceptional: You're a talented strategic thinker who possesses many of the traits, behaviors, attitudes, and cognitive capacities that are necessary for thinking strategically	104–125
Superior: You're a highly effective strategic thinker in many areas but would benefit from refining some of your skills.	78–103
Adequate: You know and practice many of the basics of strategic thinking. However, you can increase your success by further extending your skills.	51–77
Deficient: You'll need to work broadly on your strategic thinking skills so that you can learn how to analyze opportunities and problems from a broad perspective and understand an action's potential impact on others.	25–50

3. Content of the Unit

3.1 Strategic Thinking

Strategic thinking transcends time, space, and resources to offer innovative solutions to complicated and perplexing issues a company faces in its competitive arena (Hamel & Prahalad, 1994; Mintzberg, 1987). As such, strategic thinking has several interrelated qualities, including a long-term orientation, a systemic and integrative approach toward problem solving, and creativity (Abraham, 2005; Liedtka, 1998)

Strategic thinking requires creativity, as well as foresight and insight. Foresight means shadowing the future; that is, foreseeing its shape before it materializes. Insight revolves around uncovering ways that give birth and meaning to the future. It embodies creativity, inventiveness, and proactiveness in changing the competitive arena and inducing new dynamics. It often entails revising the boundaries and complexion of the competitive arena, as well as challenging and sometimes revising the assumptions that underlie market forces. Insight also creates new competitive spaces by reconfiguring or altering the links that exist in a firm's ecosystem. Reconceptualizing the domain, content, and relationships among its key components can give the firm an opportunity to compete in an arena where it sets its own rules of the game (Zahra & Nambisan, 2011). Foresight and insight are bounded by imagination, not simply by resources or geography. Entrepreneurs understand that foresight and insight are based upon, and shaped by, the firm's ecosystem. These entrepreneurs know that their companies depend on broad settings and diverse webs of relationships for survival. In turn, survival requires addressing the limitations of that ecosystem, working around its complexity and constraints, and learning how to turn these challenges into focused and purposeful actions that create value. Being able to comprehend and respond to these challenges is the crux of strategic thinking. In today's organizations, strategic thinking is not the sole responsibility of senior managers. Some of the most creative ideas that stimulate strategic thinking come from middle and lower-level managers, as well as

employees who interact with customers, suppliers, and other stakeholders. Employees who are steeped in the knowledge of their company's operations are well positioned to come up with some of the more interesting strategic moves that have promise to transform the company's business and change the dynamics of competition (Hamel, 1996). Employees often develop their own knowledge networks via which they share, discuss, and evaluate ideas for products, above and beyond the company's evolution. They also keep in contact with others who belong to professional and personal friendship networks, another valuable source of ideas for strategic thinking. Learning to stimulate and capture these diverse ideas from managers and employees through the organization can enrich the menu from which senior executives harness ideas for strategic change, especially when they unleash the firm's entrepreneurial capabilities and potential.

3.2 Independent new ventures and the entrepreneur optimism

New ventures working on the fringes of their respective industries are able to develop in ways that allow them to grow from niche players to value dominators, or even industry leaders – also known as keystones. These companies have shown considerable adeptness in restructuring their organizations and reconfiguring their business models, which made it possible for them to develop and succeed. They often have advantages over established companies in terms of learning, sharing knowledge, and rapidly revising their strategic moves. With their founders at the helm, these ventures can streamline their operations, unfettered by sunk costs, prior relationships, or historical forces. Many entrepreneurs rely on intuition when making decisions regarding their new companies. It has been suggested that one consequence of this is that new ventures do not always use formal planning, as entrepreneurs tend to be ad hoc in their decision making. These entrepreneurs are prone to overconfidence, optimism, generalizing from small numbers, and rigidity (Busenitz & Barney, 1997). Overconfidence means entrepreneurs are likely to believe in their ideas, creations, and firms more than is warranted by facts. Optimism means that entrepreneurs tend to see positive trends even in bad or bleak news (Dushnitsky, 2010); as a result, entrepreneurs might set higher growth and profit goals than is reasonable given industry conditions.

This optimism is reinforced by another tendency that entrepreneurs have: to generalize beyond what the data and facts indicate, often using bits of information and anecdotes to support their mistaken beliefs. Optimism and overconfidence combine to explain why some entrepreneurs persist, even when all indications show their ventures are failing. Rigidity plays an important role, too. Entrepreneurs are unlikely to alter their views, even when initial feedback suggests the need for change and flexibility. This rigidity can be deadly if not countered with a thorough grounding in reality.

Entrepreneurs often experience a number of challenges as they engage in strategic thinking. Industry boundaries are not clearly delineated; this happens over time as companies lay claim to various parts of the market, differentiating themselves from one another. When creating new types of organizations - for example, a new venture in an industry that is unknown or does not even exist - comparisons with other ventures can be misleading or even deadly. Data simply do not exist about other companies that might enter the industry, where and when they might enter, and how well they are likely to compete. Entrepreneurs are also busy people and work under severe resource constraints. That limits the time available for thinking about and playing out various potential scenarios.

While countless entrepreneurs in the high-tech industry have strong technical training and experience, just as many tend to ignore the organizational side of competition; that is, how organizations are built, decisions are made, resources are allocated, and so forth. They also fail to capitalize on their connections in and outside the industry, to seek the advice and help they need to build the scale and scope of operations for success. Part of these founders' strategic challenge is to connect their ventures to the broader ecosystem, a process that requires understanding the dynamics that govern relationships within that system and the function of entrepreneurial activities in this regard. The nature of these entrepreneurial activities is determined by the role a new venture aims to play in its ecosystem. While many are content with being niche players, Entrepreneurship and strategic thinking in business ecosystems 221 others focus on being physical or value dominators, or even evolve into the central node that connects participants and develops rules of engagement - that is, being a keystone company.

3.3 The dynamic interplay in an ecosystem

Dynamic interplay occurs between strategic thinking and entrepreneurship in a business ecosystem. Strategic thinking requires attention to, and consideration of, the linkages that exist among members of the ecosystem. These relationships develop because of specialization in different skill areas, historical ties among companies, and personal relationships among people working in different parts of the ecosystem.

Entrepreneurs appreciate that long-term success hinges on understanding, managing, and effectively and creatively exploiting these linkages. Therefore, they work on establishing and cultivating these linkages, recognizing their crucial importance in transforming the ecosystem by changing the mix of resources needed to operate in that ecosystem or introducing new business models that redefine how companies within their ecosystem behave. Entrepreneurs also focus on systematically reshaping the ecosystem to their advantage, rather than simply managing existing relationships. As with biological and ecological ecosystems, business ecosystems are susceptible to change, adaptation, and evolution. However, the outcomes of these processes are hard to predict and take time to materialize. Entrepreneurship is a major source of frames of reference and mental models that give rise to new strategic initiatives (Isenberg, 2010).

Entrepreneurship plays three interrelated roles: a source of strategic initiatives; a lever in positioning the firm; and a set of activities that actualize firms' strategic moves, thereby creating value. This ongoing cycle in turn highlights the importance of learning, another source of knowledge that defines the different types of entrepreneurial opportunities of the firm. To illustrate the dynamic link between entrepreneurship and strategic thinking, we consider four different models of ecosystems that differ in terms of the nature of innovation space they inhabit and the nature of governance. These models are aptly termed: Orchestra, Creative Bazaar, Jam Central, and MOD Station (Nambisan & Sawhney, 2007a). Table 2 provides an overview of various entrepreneurial activities and corresponding challenges related to strategic thinking that established companies and new ventures face in each of

these four ecosystems: The Orchestra Model, The Creative Bazaar Model, The Jam Central Model and the The MOD Station Model.

3.4 Transformation in an ecosystem: Implications for managerial practice

Transformation in an ecosystem: Implications for managerial practice Understanding the linkage between thinking strategically and entrepreneurship sets the stage for exploring how managers exploit entrepreneurial activities for market leadership and value creation. A firm's ecosystem both inspires entrepreneurship and promotes strategic thinking. While there are things about the ecosystem that should be taken as 'givens,' there is considerable room for entrepreneurship in framing, revising, and transforming Entrepreneurship and strategic thinking in business ecosystems 227 an ecosystem—or selected parts of it—for competitive advantage (Hanna, Rohm, & Crittenden, 2011; Iansiti & Levien, 2004). Interestingly, the critical importance of connecting entrepreneurship and strategic thinking becomes evident when we consider different types of ecosystems.

Entrepreneurship can stimulate the emergence of growth and evolution by revising assumptions about boundaries and resources, which sets the stage for redefining the competitive arena.

Entrepreneurship also requires the building of new relationships and linkages within an ecosystem, revising the dynamics of competition. In this context, it becomes a knowledge creating activity where the outcomes are thoughts, models, and new ways of organizing the firm's operations.

Entrepreneurship is also useful in redefining the ecosystem where the firm offers its products, alerting it to the profound role of intangibles in competition. These changes alter the nature of the ecosystem, which in turn compels companies to change where and how to compete. Such dynamic relationships influence companies' strategic choices and how they position themselves in their markets (Adner & Kapoor, 2010; Brush, 2008).

The discussion herein highlights the importance of boundary spanning activities. Even though individual entrepreneurs and companies might focus on building, organizing, and shaping their ecosystem, the knowledge and skills needed are available from multiple places: knowledge and

innovation networks, clusters, research centers, et cetera. This makes it essential to connect and capture knowledge from these sources, a task that requires creativity and entrepreneurial orientation. It is also important to keep in mind that shaping or transforming an ecosystem implies different types of competitive dynamics will exist at various points in time. In turn, this calls for different mental and business models. As a result, strategy making and implementation thus become a constant managerial and entrepreneurial challenge, necessitating deliberate moves in some situations while emphasizing improvisation in other cases.

Managers and entrepreneurs must understand that strategy extends beyond outsmarting the competition to novelty in thinking about the marketplace and how to deliver value for customers, considering the ecosystem in which competition unfolds. This requires constant adaptations and refinements in the company's strategic actions. Being an integral part of an ecosystem has several important advantages: overcoming gaps in knowledge/skills; gaining access to critical resources, including financial capital; and building important relationships, or social capital, that firms can use in allying to commercialize new technologies. Further, the vision and the rules set by keystone companies within the ecosystem enable effective and profitable engagement with other partners and enhance complementarities among the partners (Iansiti & Levien, 2004; Moore, 1993, 1996; Shapiro & Varian, 1999).

These benefits can then serve to deter entry and encroachment on the domain held by existing companies. However, being part of an ecosystem requires constant adaptation, which adds layers of complexity to a firm's decision making. Also, retaining membership in an ecosystem demands compliance and conformity, which could lead to a lack of edginess, especially among new ventures.

As a result, entrepreneurs and managers need to recognize the critical tradeoffs associated with ecosystem membership. Business ecosystems offer their members opportunities to simultaneously collaborate and compete through radical and continuous innovation. Ecosystems vary considerably in their organization and business models, thereby influencing the strategic choices made by both established companies and new ventures.

These choices require entrepreneurial activities that create, shape, and transform the competitive landscape. In turn, these changes ignite rivalry that stimulates innovation and alters the nature of the ecosystem itself. Companies that capitalize on this dynamic cycle among innovation, entrepreneurship, and strategic thinking in ecosystems are especially well positioned to succeed.

Exercise:

PUSH YOURSELF TO THINK DIVERGENTLY

Mindmaps are a powerful way to overcome fear of the blank page, look for patterns, explore a subject, come up with truly innovative ideas, record their evolution so you can trace back in search of new insights, and communicate your thought processes to others. While lists help you capture the thoughts you already have, mindmaps help to generate wildly new ones. They are extremely versatile, and we use them all the time, not only at work but also at home, for example, to come up with dinner party ideas. (See illustration example below.)

TOOL: Mindmap

PARTICIPANTS: Usually a solo activity

TIME: 15-60 minutes

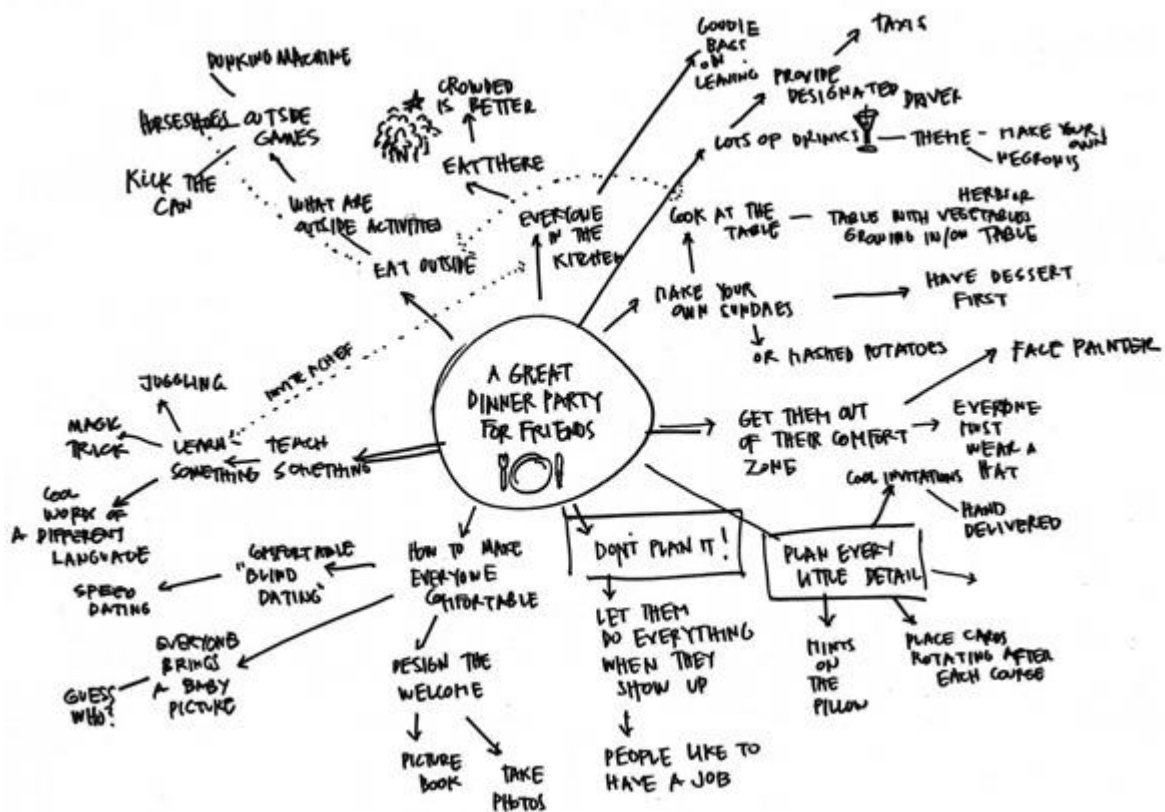
SUPPLIES: Paper (the bigger the better) and pen

INSTRUCTIONS:

1. On a large blank piece of paper, write your central topic or challenge in the middle of the paper and circle it.
2. Ask yourself, "What else can I add to the map that is related to this theme?" Write down ideas, branching out from the center, and do not worry if they feel clichéd or obvious. That happens to everyone.

3. Use each connection to spur new ideas. If you think one of your ideas will lead to a whole new cluster, draw a quick rectangle or oval around it to emphasize that it is a hub.
4. Keep going. As the map progresses, your mind will open up, and you'll likely discover some wild, unpredictable, dissociative ideas.
5. You are done when the page fills or the ideas dwindle. If you are feeling warmed up but not finished, try to reframe the central topic, and do another mindmap to get a fresh perspective. If you feel you have done enough, think about which ideas you would like to move forward with.

Example:



Unit 4 **Branding & Sales**

#businessbrands

#marketingyourbrand

#yourpromisetoyourclients

#thinkingbrandvalue

#theartofselling

#alwayslisten

#giveandtake

#smartadjustments

1. Summary

One of the most important aspects of any business is branding. Branding is key for success whether your business is large, small, retail or B2B (business to business). An effective brand strategy gives you a major advantage in increasingly competitive markets. But what exactly does "branding" mean? How does it affect a small business like yours?

Simply put, your brand is your promise to your customer. It tells them what they can expect from your products and services, and it differentiates your offering from your competitors. Your brand is derived from who you are, who you want to be and who people perceive you to be.

2. Learning Outcomes

Learn what this vital business term (branding) means and what you can do to create and establish one for your new business.

Selling is a marathon. What to do and not to do. Always listen and learn.

3. Unit Content

3.1 Brand strategy and equity

Are you the innovative maverick in your industry? Or the experienced, reliable one? Is your product the high-cost, high-quality option, or the low-cost, high-value option? You can't be both, and you can't be all things to all people. Who you are should be based to some extent on who your target customers want and need you to be.

The foundation of your brand is your logo. Your website, packaging and promotional materials - all of which should integrate your logo - communicate your brand.

Your brand strategy is how, what, where, when and to whom you plan on communicating and delivering on your brand messages. Where you advertise is part of your brand strategy. Your distribution channels are also part of your brand strategy. And what you communicate visually and verbally are part of your brand strategy, too.

Consistent, strategic branding leads to a strong brand equity, which means the added value brought to your company's products or services that allows you to charge more for your brand than what identical, unbranded products command. The most obvious example of this is Coke vs. a generic soda. Because Coca-Cola has built a powerful brand equity, it can charge more for its product--and customers will pay that higher price.

The added value intrinsic to brand equity frequently comes in the form of perceived quality or emotional attachment. For example, Nike associates its products with star athletes, hoping customers will transfer their emotional attachment from the athlete to the product. For Nike, it's not just the shoe's features that sell the shoe.

3.2 Defining your brand

Defining your brand is like a journey of business self-discovery. It can be difficult, time-consuming and uncomfortable. It requires, at the very least, that you answer the questions below:

- What is your company's mission?
- What are the benefits and features of your products or services?
- What do your customers and prospects already think of your company?
- What qualities do you want them to associate with your company?

Do your research. Learn the needs, habits, and desires of your current and prospective customers. And do not rely on what you think they think. Know what they think.

Because defining your brand and developing a brand strategy can be complex, consider leveraging the expertise of a nonprofit small-business advisory group or a Small Business Development Center.

Once you have defined your brand, how do you get the word out? Here are a few simple, time-tested tips:

- Get a great logo. Place it everywhere.
- Write down your brand messaging. What are the key messages you want to communicate about your brand? Every employee should be aware of your brand attributes.
- Integrate your brand. Branding extends to every aspect of your business--how you answer your phones, what you or your salespeople wear on sales calls, your e-mail signature, everything.
- Create a "voice" for your company that reflects your brand. This voice should be applied to all written communication and incorporated in the visual imagery of all materials, online and off. Is your brand friendly? Be conversational. Is it ritzy? Be more formal. You get the gist.
- Develop a tagline. Write a memorable, meaningful, and concise statement that captures the essence of your brand.
- Design templates and create brand standards for your marketing materials. Use the same color scheme, logo placement, look and feel throughout. You do not need to be fancy, just consistent.
- Be true to your brand. Customers will not return to you--or refer you to someone else--if you do not deliver on your brand promise.
- Be consistent. I placed this point last only because it involves all the above and is the most important tip, I can give you. If you cannot do this, your attempts at establishing a brand will fail.

3.3 Selling is a marathon

No article or book can really teach you how to be a great salesperson. The best we can do is to share some interesting and counter-intuitive insights that took a while to figure out, starting with the do's and don'ts' s of delivering a sales pitch:

3.3.1 Selling is a marathon, not a sprint. Selling is a process – an often long and arduous one. The bigger the deal, the longer it takes and the more hoops you must jump through. On the plus side, you will have more time to build a solid foundation for an enduring relationship. If you want to be the last one standing at the end, do not push too hard in the beginning.

3.3.2 You are always selling. Whether you are pitching a new concept to investors, a potential partner to join you, or your board on a risky strategy, you're more or less always selling something. And if you are not aware of that, you're not going to do the right thing to ensure your best chance of success. Truth is, even salespeople spend more time selling their own company than their customers.

3.3.3 Make “yes” the logical and emotional choice. Selling is a skill set. Granted, a transaction does eventually take place, but the vast majority of the time, you're cultivating a relationship, listening to determine your customer's needs, or building a case for an investment of time and resources or a leap of faith. If you do it right, saying “yes” becomes the logical and emotional choice.

3.3.4 Be sure there is a real opportunity. Cold calling is not synonymous with wasting your and everybody else's time. Cold calling is when you believe there is a real opportunity, and this is your first unsolicited contact with a company or individual. Once you have identified the right person and that there is at least a possible fit, then go for it. Otherwise, you will come across like a dummy, waste precious time, and maybe even burn bridges or harm your reputation.

3.3.5 Know whom you are talking to. Try not to get too far along without knowing whom you are meeting with, what their role is, what motivates them, and how to approach them. Do what you can to learn in advance what they are doing and what they might be looking for. That way you can come up with a strategy that makes sense. **There are ways to do that and adjust your plan on the fly, but that comes with experience.**

3.3.6 Do not try too hard to relate personally. This is probably the biggest mistake small businesspeople make. Sure, you want to build a relationship, but if you try to get too personal too quick, you risk appearing too eager, invading their personal space, or turning the other person off. Instead, **pay attention and react to their cues, tone, and body language.**

3.3.7 Do not show off how smart you are. We have all been guilty of this ourselves, but not intentionally. Often, in a transparent attempt to relate and maybe indicate we know what others are talking about, we come off like know-it-alls who love to fill the air with the sound of our own voice. The truth is the customer does not care one bit about what you know. He just wants to know if you have got a solution to his problem. **So, listen.**

3.3.8 Give a little, get a little. **Selling is a game of give and take.** If you do it right, you give a little, get a little, and repeat the process over and over. For example, after providing a general outline of your product, you might ask them to tell you about their product or company so you can determine if there is a fit. If, on the other hand, you spill your guts all at once and they say “not interested,” you’ve provided a ton of information, gotten nothing in return, and possibly missed an opportunity to offer a customized solution.

3.3.9 Never rehearse. There are several reasons for that, but the most important one is that it's harder to think on your feet and adapt to new information. Instead, the rule you should always follow is to simply know your material cold, know as much about who you're pitching as you can, come up with a reasonable plan, and then **ask lots of questions, listen for answers, and adjust as needed. Trust your gut.**

No matter what happens, remember this: **You will make lots of mistakes, but you'll get better in time.** Most people think they are, or they are not a "natural-born salesperson", but nothing could be further from the truth. **Just listen and learn ...** from the right people.

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Unit 5 Networking

#trust

#information

#selfpromotion

#visibility

#socialmedia

#opportunities

1. Summary of the Unit

The success of companies is influenced by people's skills. In particular, the figure of the entrepreneur is crucial and must possess all the ability to seize the opportunities and face the risks for business development. The abilities of a good entrepreneur also have to do with his so-called soft-skills, and in particular with his ability to do networking i.e. to create solid relationships around its company. This activity is fundamental to create new business opportunities, access financial resources, and to promote the brand. This Unit will give some insights on how to reinforce and using networking skills.

2. Learning outcomes and initial learner self-assessment

After completing the Unit you will have a better understanding of the importance and functions of networking. By exploring some networking strategies you will also acquire the basics on how to build professional networks in the digital age.

Are you a good networker?

1= No, 2 = In part, 3 = Yes

a. I think that networking is the best way to meet
people.

1 2 3

b. I think that networking can be very useful to find customers, suppliers and investors	1	2	3
c. I always take some of my work time to do networking	1	2	3
d. I plan my networking activity to be effective to my needs and to those of my business	1	2	3
e. I keep track of all my professional contacts finding the most effective way to keep in touch with them	1	2	3
f. I usually plan specific activities to enlarge my network and find new contacts	1	2	3
g. I always try to understand how I can be useful to my professional contacts	1	2	3

Sum score:

Score Interpretation

Score	Comment
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0-11	Networking does not seem to be among your priorities. But it is a very important activity for the development of your start-up. It is important, from here on, that you focus on developing a networking strategy.
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12-16	You are aware of the importance of networking, but you need to perfect your strategy to make it more effective and focused.
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17-21	You have strong networking skills. But there is always a way to do it even better!
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Are you ready to define an effective networking strategy?

1= No, 2 = In part, 3 = Yes

a. Do you know what differentiates you and your company from others?	1	2	3
b. Do you have a clear idea on what you can offer to your contacts?	1	2	3
c. Have you identified what does your business need most?	1	2	3
d. Have you identified where to get information useful for the development of your business?	1	2	3
e. Have you mapped complementary/contiguous sectors to your business where it could be useful to develop your professional network?	1	2	3
f. Have you planned how to reach the people that you are interested to?	1	2	3
g. Have you got a social media strategy to reinforce your professional network?	1	2	3

Score Interpretation

Score	Comment
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0-11	You are not yet ready to proceed with your networking activities. Think carefully about all the questions you just answered negatively to get the answers you need to get started.
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12-16	Some aspects are clear to you, but you still have to work to develop an effective networking strategy, focused on the needs of your start-up.
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17-21 You have quite clear ideas on how to proceed in the networking activities that best serve the development of your start-up.

3. Content of the Unit

3.1 Networking: a strategic soft skill for successful entrepreneurship

The entrepreneur is the one who identify and pursue solutions among problems, possibilities among needs, and opportunities among challenges. Entrepreneurs recognize a change in society and, based on their knowledge and skill, they respond with a new way of doing things; they create a novel response to an opportunity by recombining people, concepts, and technologies into an original solution.

In addition to the organizational and economic-financial skills, there are however other areas - more specifically related to the so-called “soft skills” - in which the ability of an entrepreneur can be fundamental for the success of a business, regardless whether it is an already consolidated business or a new venture.

A first area of expertise is that of **NETWORKING**, today widely recognized, at the empirical level and by academic literature, as a particularly strategic area.

In management and entrepreneurship literature we can find many different definitions of “networking”, according to Oxford dictionary networking is “a system of trying to meet and talk to other people who may be useful to you in your work”.

The ability to create solid relationships around the company is fundamental as these are functional to create new business opportunities, access diversified sources of financing, to facilitate transfer of knowledge and skills, and to promote the brand.

It is nowadays widely recognized that entrepreneurship needs social interaction in order to stimulate support from others, and to shape and develop new ideas. As noted by Invernizzi, Biraghi and Romenti (2012) “assuming an approach of this type means building bridges between the organization and its most vital stakeholders, as well as activating and facilitating their participation and involvement”, thus “developing solid symmetric relations and long-lasting partnerships with them”.

Networks are important to all organizations, but they are particularly crucial for new ventures, whose liabilities of newness and smallness can be mitigated through network ties.

Moreover, many studies have highlighted how new ventures whose founders had either past direct ties or indirect ties to investors are more likely to secure venture capital funding, and that prior indirect ties between founders and seed-stage investors positively influence the latter's decision to fund the new venture.

Aim of this module is therefore to:

- understand the importance and functions of networking
- explore some networking strategies
- understand the basics on how to build professional networks in the digital age.

3.2 The functions of networking

Networking develops in a formal and informal way and it is a strategic tool in at least 4 areas:

- 1) to carry out our business activities: here we use networking to get in touch with qualified people, who can be useful for carrying out our activities, or to find information functional to business development. In addition, networking is useful in supporting the distribution and sale of products and services on the market.
- 2) understand our competitive environment. A second area of application of networking is to know and better analyse the competitive context in which we operate. Networking is useful for knowing what is happening in other companies, what competitors are doing, how the market is moving.
- 3) to promote ourselves and our company. Networking is also very useful for increasing our professional visibility and that of the company in order to increase our business.

The technical know-how of the entrepreneur or that of the team members is undoubtedly fundamental for the success of a business. However, over time the ability to network and create relational capital has

assumed an increasingly central position in many sectors. Even in a sector such that of art, for example, some scholars have highlighted how the success of an artist today depends not only on the artistic quality of his works but also on his ability to build relationships with gallery owners, customers and in the star-system.

4) Finally, networking is a fundamental activity when looking for a job.

Therefore, there are many advantages related to networking: networking is the best way to meet people; it is a means of finding customers, suppliers and investors; allows to obtain information for making decisions; allows to connect to those who have more experience than us; it helps to find the job we want or to achieve a result that needs the support of others.

In particular, when it comes to start-ups, networking takes on a central role: the need to test the product / service offered, to confront potential customers, developers and professionals; the need to find investors who support the idea makes networking a key element for success.

As already mentioned, many studies have shown that the success of a start-up depends very much on the "networking style" of the founders and also on the fact that they have consolidated relationships with potential investors.

3.4 How to consolidate and expand professional networks

Networking must not be a casual activity but must be planned and well organized consistently with our goals.

Which are the goals I want to pursue by developing my professional network? Generally, it is possible to think at one's networking activity in terms of:

1. consolidating the existing network: it means resuming the contacts already in place and working on the consolidation of this network of relationships;

2. expanding the network: this can be achieved by multiplying opportunities for social contact, including by creating ad hoc ones (this is the case for example when organizing meetings or an opening etc.).

In both cases, these are activities that need to be structured and that, it must be remembered, can take a considerable amount of time.

Some questions should be addressed to build a well-focused networking strategy:

- What is the value of my start-up and the individual value of each member of my team? What differentiates me and my company from others? What can I offer to my contacts? An issue very emphasized by networking experts is that of the importance of placing oneself in a logic of exchange and not of request. The secret of successful networking is to understand what I can do for someone.
- What does my business need most (indeed, it is important to develop networking activities in a way that is functional to needs)?
- What are the areas / circles in which I can retrieve useful information for the development of my business?
- Which are the complementary and contiguous sectors to my business where it could be useful to develop new relationships? Sometimes the most interesting opportunities may also come from outside my specific area of activity.

For new contacts, it is important ex-post to focus on the type of contact that has been established and on what our new acquaintance expects from me in the future. We must then ask ourselves the best ways to keep the contact alive over time.

3.4 Building professional networks in the digital age

How and where to do develop networking activities?

Identifying and mapping the most functional places for networking is an important task that needs great attention, especially in a rapidly changing social and economic context.

There are physical places in which to develop networking activities: trade fairs, conferences, sector / category meetings. There are also more traditional occasions that can be specifically organized such as business openings, dinners and public presentations.

Moreover, for start-ups there are also new ways to enter in contact with creative and skilled people that can give us ideas and support our business: participating in hackathons (i.e. events in which a large number of people meet to engage in collaborative computer programming or prototype development), exploring co-working spaces, and “creative hubs” can be rich and inspiring social and professional experiences.

We must not forget that networking develops in a formal and informal way and therefore apparently uninteresting opportunities for networking can instead prove to be useful in making new contacts.

Then there are all networking activities that can be developed online using social media, which today are a very powerful tool both before and after each networking meeting.

Internet and social networks have now become a very important tool for networking because they offer the possibility of quickly accessing a series of information on people and institutions with which we are interested in getting in touch and because they allow us to give visibility to our professional activities, to our ideas and to our way of dealing with some professional issues.

Among the various networking tools, LinkedIn (www.linkedin.com) is certainly among the most effective ones and it has become in a few years the largest professional community in the world. But Facebook, Instagram and Twitter can be networking powerful tools too.

Social networks are also useful in order to better frame our contact because we can understand the business connections of the companies your contacts work for, their past professional roles, their contacts as well as their interests.

However, one should not make the mistake of relying solely on these tools: neglecting relationships in person contacts is a very serious mistake because the most important professional opportunities still pass in personal relationships.

Unit 6 Communication

#internalcommunication

#externalcommunication

#stakeholders

#socialmedia

#team

#online

#offline

#growthhacking

1. Summary of the Unit

An important area of competence for an entrepreneur is that relating to communication, understood on two levels: a first level is that of the ability to communicate effectively and refers more specifically to aspects relating to the transversal skills of the entrepreneur; a second level is that of the ability to effectively manage the internal and external communication of the start-up.

This second level is the focus of this Unit that will explain the basics of internal and external communication processes inside a company and the processes the processes and activities underlying a good internal and external communication strategy, as well as the connection between communication activities and other strategic business activities.

2. Learning outcomes and initial learner self-assessment

After completing the Unit you will have a better understanding on the role of external and internal communication for your business. You will also have the basic knowledge on the resources and services that are needed to set up an external communication strategy, and its related actions.

Are you good at facilitating internal communication in your start-up?

1= No, 2 = In part, 3 = Yes

a. I promote the culture of communication in my start-up	1	2	3
b. I clearly define and communicate to my team responsibilities, expected results and times	1	2	3
c. I share with my partners and team all useful information for carrying out processes.	1	2	3

d. I usually collect feedbacks from my partners and team	1	2	3
e. I organize follow-up occasions to monitor the perception of my team about internal collaboration issues	1	2	3
f. I monitor the availability and real need of human and financial resources I my start-up	1	2	3
g. I have a dedicated budget for internal communication	1	2	3
Sum score:			

Score Interpretation

Score	Comment
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0-15	Internal communication is a central aspect for business development. Try to analyze the questions you have just answered negatively to find the best strategies to get a positive answer to all of them.
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15-25	You perceive the importance of internal communication for the success of your start-up. However, the process needs to be perfected and there are still some areas for improvement in the organization of the process, in the collection and sharing of information, and in the development of relationships.
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25-30	You are fully aware of the importance of the internal communication processes to which you dedicate time and resources.
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Do you possess the basics to start building your external communication strategy?

1= No, 2 = In part, 3 = Yes

a. I have a clear idea about the identity and values of my company	1	2	3
b. I know what I want to communicate	1	2	3
c. I have a clear map on the targets of my communication activities	1	2	3
d. I have identified the possible communication tools	1	2	3
e. I have set a communication budget	1	2	3
f. I have identified all the set of skills needed to carry out a good communication strategy	1	2	3
g. I have scheduled my communication activities over time	1	2	3

Score Interpretation

Score	Comment
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0-11	You still do not have clear ideas on many of the most important points to define an internal communication strategy.
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12-16	The questions you just asked yourself are related the one to another, and the success of the final strategy depends on a full awareness of all these aspects. You need to work further in order to have a set of information as complete as possible.
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17-21	You have in focus the fundamental aspects of your business: it is now possible to proceed with the definition of an external communication strategy.
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3. Content of the Unit

3.1 Introducing the issue of communication

In this Unit, the issue of communication will be addressed with particular reference to internal and external communication processes.

By external communication we mean the complex of activities and communication flows that pass from the organization to its external audiences: customers, suppliers, stakeholders, institutions, etc. By internal communication we mean instead the complex of activities aimed at creating an internal network of information flows aimed, therefore, at sharing corporate objectives, disseminating information, sharing knowledge etc. with employees and within the management. Although internal communication is a strategic and complementary aspect for every company, in the case of start-ups it takes on a particularly delicate role.

This specific unit therefore intends to offer the basics to understand:

- The resources and services that are needed to set up an external communication strategy, and its related actions.
- the resources and services that are needed to set up an internal communication strategy, and its related actions.
- the phases of all communication processes from design, to management and evaluation.

3.2 Internal communication and successful team management

Internal communication plays a strategic role in mobilizing entrepreneurship and empowering people to act proactively, to share their tacit knowledge, to work in a team and to change the way in which they do business.

For this reason, internal communication in a start-up is a particularly delicate issue: the team is the beating heart of a start-up and acts as a driver in all the go-to-market activities: a good team can bring an idea to success, an inefficient team can make even the best idea a failure.

A good team must include people who individually have a lot of experience in the sector in which the start-up wants to develop and who collectively cover all the key roles with complementary skills. Each element of the team brings its own added value to the business project, and the importance of creating a united and efficient group is fundamental to ensure that everyone can do their part in the best way and in line with the start-up objectives.

To make the company vision and mission to be shared by the team and by all internal stakeholders is the main objective of a good internal communication strategy.

Internal coordination and communication are extremely important aspects because they are functional for: defining responsibilities, expected results and required times; sharing all the information useful for carrying out processes and for collecting feedbacks; monitoring the availability and real need of human and financial resources.

The internal communication process can vary widely depending on the type of company and especially on its size. For medium/large companies it is essential to have an internal communication plan.

In general, however, it is possible to identify a series of good rules which are valid for all businesses:

- Promote the culture of communication in the start-up. for an organization it is of fundamental importance that the individual members of the same team, the different teams in the same corporate area and the different corporate areas exchange information, ideas, doubts.
- Plan a dedicated budget for internal communication. To obtain good results, you should be willing to invest time, resources and capital in building relationships between people within your company.
- Measure the effectiveness and impact of internal communication. Check data on productivity, sales, profit; conduct surveys regarding the professional satisfaction of employees and collaborators; control retention rates among employees: all these measures actions allow management to verify the good performance of internal communication.

3.3 External communication

The macro objective of external communication is to create an active relationship between the organization and society: the company as an open system, in fact, needs to interact with a wide variety of other subjects, including customers - current or potential -, investors/sponsors, suppliers, and also all other stakeholders of the territory in which the company operates.

External communication should not be seen as an activity aimed at increasing sales; it is something much more complex. Among the functions of external communication there are also: the creation and improvement of the brand awareness; the promotion of the history, values and mission of the company; the promotion and visibility of partners, and much more.

Given the complexity of the communication activity and the variety of objectives it encloses, it is important to build a communication strategy and design a detailed communication plan.

In order to acquire the necessary elements to plan an external communication strategy, some preliminary questions are important:

- what is my identity and what are my values?
- what do I want to communicate?
- to whom do I want to communicate?
- how I want to communicate?
- which is the best time to communicate?
- what resources are available?
- what skills do I have internally, and which do I have to acquire externally?

Throughout the communication process it is also important to:

- identify simple, clear and comprehensive messages
- use channels and tools appropriate to the type of message
- pay attention to the different types of recipients

It should be also considered that the subjects to whom the communication activity is addressed are not a passive target, but an active one that co-creates contents and meanings. These subjects can transform themselves into the "sender" of messages and communications flows to the company. This is why the company can no longer simply produce conversations but must be engaged in conversations.

As for the type of tools available for external communication, there is a wide variety of possibilities, continuously expanded by the evolution of digital communication.

In order to give a classification of the possible options, first of all it is possible distinguish between online and offline communication which should, however, be integrated.

Offline communication includes for example: commercials on radio and television; advertisements in newspapers; participation in trade fairs; outdoor marketing (flyers, posters), events etc.

Online communication includes communication on the web (with the optimization of the contents proposed according to the parameters of search engines); communication through the company website; social media, email. Moreover, online communication strategies can also be embedded in other kind of activities such as, for example, a crowdfunding campaign.

A distinction can then be made between owned media – that is, media managed directly by the company - and paid media which the company buys on the market. A third category is that of earned media made by all the communication space spontaneously gained by the company in newspapers, social conversations, etc., and which, in the end, are also a result of effective media relations strategies and PR activities.

3.4 Communicating a start-up in the digital age: growth hacking

Digital technologies have become part of our daily lives and this has profoundly changed the world of communication and the ways in which companies come into contact with their customers and stakeholders.

Digitization is leading to the overcoming of some traditional advertising strategies thanks not only to the new communication tools but also due to the enormous availability of data and to the new possibilities for user / customer profiling.

Often, a start-up in its early stage does not have great resources to invest in external communication and in a sophisticated digital marketing strategy. Despite this, every start-up must necessarily have a communication strategy that can make it grow and bring it to the attention of customers and investors. In this framework, growth hacking is one of the most interesting tools for start-ups. The term “growth hacking”, introduced by entrepreneur and writer Sean Ellis in 2010, indicates a set of web marketing strategies aimed at making a business grow faster through the acquisition on a high number of users. Growth hacking can work on viral acquisition (it is a question of exploiting the characteristics of the product itself so that users can talk about it and share information); paid acquisition (based on the use of SEM-search engine marketing, Facebook advertising etc.); content marketing (innovative content is created that feeds itself thanks to sharing through social networks); email marketing etc. Growth hacking is part of web marketing but unlike traditional web marketers, those involved in growth hacking use low-cost and innovative strategies such as social media and viral marketing.

D. Bibliography

Books useful to deepening the understating of the issue:

- Cornelissen J.P. (2017), *Corporate Communication: A Guide to Theory and Practice* (5th edition), SAGE Publications
- Ellis S. and Brown M., (2017), *Hacking Growth: How Today's Fastest-Growing Companies Drive Breakout Success*, Currency.
- Kerpen D. (2019), *Likeable Social Media. How to Delight your Customers, Create an Irresistible Brand, & Be Generally Amazing on All Social Networks That Matter* (3rd edition), McGraw-Hill Education

Unit 7 Finance

#costs

#revenues

#resourceacquisition

#investors

#bootstrapping

#publicfunds

#crowdfunding

#business angels

#venturecapitals

1. Summary

Finding and owning the necessary resources to finance one's start-up is a fundamental aspect for the development of every business.

The Unit illustrates some key questions that any entrepreneur should ask himself in relation to the economic and financial aspects of his business. Furthermore, the Unit illustrates the different financing steps for a start-up and the different financing channels to which it is possible to access, providing basic information on crowdfunding platforms, public subsidies, private grants, angel investors, venture capitals, banks and private equities.

2. Learning outcomes and initial learner self-assessment

The Unit permits to reflect on the financial needs of a start-up giving the basics to understand the funding phases of a start-up and the related sources of funding. After completing the Unit the reader should also be able to recognize what are the key characteristics that a start-up must po to find a first interest from investors.

Are you able to understand if your business idea will find the financial resources to develop successfully?

1= No, 2 = In part, 3 = Yes

a. I know how much money I need to develop at least the prototype/minimum viable product of my business	1	2	3
b. I know how the costs of my start-up are organized and which are the most important cost items	1	2	3

- | | | | |
|--|---|---|---|
| c. I have well identified all the possible streams of revenue | 1 | 2 | 3 |
| d. I know how much capital I have, and I already identified the possible sources of financing for the first steps of development | 1 | 2 | 3 |
| e. If I am unable to raise funds from investors, I still will be able to make my start-up grow, perhaps more slowly | 1 | 2 | 3 |

Score Interpretation

Score	Comment
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0-7	You have not yet correctly analyzed the costs and sources of income and / or you are not clear on how you can finance your start-up. Try to better identify all these aspects and understand how much money you need to make at least a prototype to get the first feedbacks from the market and from investors.
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8-12	You are trying to clarify your ideas, but you still need to analyze in detail some important aspects that are needed to carry on the first stages of your business idea.
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13-15	You have clear ideas about the initial needs of your start-up, and on the key requirements to find financial support.
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Do you know how to find resources and how to convince investors?

1= No, 2 = In part, 3 = Yes

- | | | | |
|---|---|---|---|
| a. I have a good knowledge and an international perspective on the potential market for my idea | 1 | 2 | 3 |
|---|---|---|---|

b. My business idea meets a need in society addressing expectations of specific targets	1	2	3
c. I am using the resources I have to test my idea and to get feedbacks from the market	1	2	3
d. I have a specific strategy targeted at convincing F-F-F to support my business idea	1	2	3
e. I have a good knowledge of the funding opportunities (call for ideas, seed funds etc.) that exist in my business environment.	1	2	3
Sum score:			

Score Interpretation

Score	Comment
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- | | |
|--------------|---|
| 0-7 | You have not yet questioned enough about where to find the money and how to meet the expectation / requirements of an investor. |
| 8-12 | You are still trying to clarify your ideas, but you need to refine your strategy or identify real funding opportunities. |
| 13-15 | It seems that you have clear ideas on where to find possible investors and that you are working in the right direction to get to them with a convincing proposal. |

3. Content of the Unit

3.1 Introduction to start-up resource acquisition and finance

A fundamental aspect for the development of a start-up is that of acquiring the resources for its development. To face this process in the best way, you need to ask yourself some questions about your business and, secondly, inquire the economic aspects of the new start-up.

In fact, on the one hand, it is necessary to analyze the costs of developing the start-up, on the other hand you need to analyze all the streams of revenue.

A first question is therefore: can my business idea be developed with the resources that I already have or with those that I am realistically able to collect? The answer to this question must necessarily be positive. What you want to produce must be feasible in the technological context in which you operate (1) and taking into consideration the resources that you are able to intercept (2), in a time that is appropriate for entering the market (3). These three “rules” are very important to be kept in mind. If you are working on hypotheses that require very advanced technological developments, very important financial resources and a lot of time, you must ask yourself if the final product, once marketed, will be able to repay the efforts made.

Other questions that you need to address yourself to understand more in depth all the economic aspects related to the development of your start-up are:

1) How much capital do I have (i.e. what are the savings, mine and of my partners, that I can use to develop a first version of the product, pay for travel, materials, rents, etc.)? Do I have money both to start and to make changes to my product once the tests have been carried out on its first version (in fact, the first version will hardly be the right and definitive one!)?

2) How are my costs organized? Is my budget correctly distributed? Do I have enough budget for communication activities? Did I plan to pay a salary to myself (albeit minimal, it is necessary to take into account a salary sufficient to maintain yourself, at least in the early years of the company)?

3) Can I go on without external investors? And, if yes, for how long? If I am unable to raise funds from investors, will I be able to make my start-up grow, perhaps more slowly, with my own resources or will I have to abandon the project?

4) What is the time limit to try to succeed? What is my way out/ "plan b"? It is essential to have a time limit within which the company must walk on its own legs and allowing the founders to live from it. At the same time, it is also important to have a plan b if things don't go well: is there a job I can go back to? Is there an activity in which I will be able to recycle the skills learned during my experience with the start-up?

Aim of this module is therefore to:

- reflect on the financial needs of a start-up;
- identify the funding phases of a start-up and the related sources of funding;
- recognize what are the key characteristics that a start-up must po to find a first interest from investors.

3.2 Phases and actors of resource acquisition for a start-up

The financing of a start-up takes place in several stages. In each of these phases, different ways of financing are possible. Table 1 gives a summary on the typical funding stages and sources of funds for a start-up.

To move its first steps (validation phase, typically in the first year of life), a start-up must rely on the investment capacity of its founders, on public subsidies, private grants, on funds raised through crowdfunding campaigns. Moreover, a start-up can rely on the so-called 3F (family-friends-fools) that is funds made available by family, friends and "fools" willing to try their luck on an entrepreneurial idea. In the early stages it is very rare, in fact, to have important investors willing to risk on a start-up that is unable to prove both the validity of an idea and its commercial capabilities.

This initial phase is called in jargon "bootstrapping". This is a delicate phase in which many start-ups run aground by focusing excessively on obtaining funds rather than on finding alternative ways to create the minimum viable product (MVP; that is the first version of the product with just enough features to satisfy early customers and provide feedback for future product development) to test the market and therefore to convince investors. The risk is therefore to remain entangled in a vicious circle.

The amount of money needed in this first phase, of course, varies greatly depending on the activity that has to be developed: some businesses have important investments for components and materials in order to create the prototype; for others it is about acquiring on the market technical skills that the members of the team do not have, etc.

If a start-up survives the validation phase, in the sense that the company begins to have a good traction in terms of users, turnover, engagement, transactions, etc., two alternatives arise: to grow at the maximum allowed rate with the financial resources available or seek third-party financing to accelerate growth, for example through business angels.

Finally, if and when the start-up starts consolidating its business model, generating significant enough revenues to reveal a potential great success, the conditions to present the business to venture capital (VC) companies will be in place. This just described, is the "typical" path of a start-up. Of course, there are many variations depending on the market in which the STEM start-up operates, and on the ability of the idea to generate significant revenues.

Table 1 – Phases and sources of financing (source: authors on Mikkel Draebye, 2019)

PHASES	SOURCES OF FINANCING
Validation	Founders FFF (Family-Friends-Fools) Public subsidies Private grants Crowdfunding
Pre-seed and seed	Business Angels

	Equity Crowdfunding Angel Networks
A-Round	Venture Capitals
B-Round	Banks Venture Capitals
C-Round	Venture Capitals Private Equity Funds Banks

3.3 Funding sources

Among the possible sources of financing mentioned in Table 1, some definitions and details are given below. To have a complete map of funding opportunity and to possess the correct jargon it is also very important when looking for investors.

Crowdfunding: Crowdfunding platforms allow the interaction between fundraisers, i.e. those looking for funds to finance their own business idea or project, and a large audience (the crowd), to collect financial commitments.

The model behind these platforms is usually that of a percentage fee on the results of the campaign. Many platforms operate according to the so-called maximalist model (all or nothing). This means that if you reach the fundraising goal, the project will receive the money, otherwise each lender will receive his money back.

There are several types of crowdfunding: reward (a non-financial reward is corresponded to the donor, this reward can be a gadget, a product, a meeting with the creator of the idea etc.); equity (which involves financing in the form of risk capital in order to obtain stakes in the company); donation (particularly important for the Third Sector because the supporters of the project contribute without expecting a tangible benefit from the donation); debt; mixed.

Depending on the business sector or on the purpose of the project, the most suitable type of crowdfunding must be chosen.

Public subsidies: in many countries there are specific measures and incentives dedicated to start-ups development. These are usually programs that aim to support entrepreneurship and employment in innovative sectors. It is therefore useful to map in your country/region all measures and institutions that could be useful to support your start-up.

Europe too has also developed a number of tools to support start-ups. For example, the EIC Accelerator (European Innovation Council Accelerator; <https://ec.europa.eu/easme/en/eic-accelerator>), a call dedicated to the development of innovative ideas through grants (non-refundable and in the form of equity), supported 5,041 participants with 2,272.98 million euros across different sectors (data retrieved in July 2020).

Private grants: many private entities operate to support start-up: bank foundations or other types of foundations, third sector institutions which support the start-up entrepreneurship through call for proposals or other types of financing.

Some of these subjects also host incubator, accelerators and innovation hubs that in which your start-up can find support to its development. Mapping these realities and knowing the opportunities that they offer to the world of start-ups is therefore very important.

Business Angels / Angel investors: a business angel is a person who gives financial support to a start-up and receives a share of any profits from it but does not expect to be involved in its management. Usually a business angel is a persona that, having accumulated professional experience and financial resources, decides to invest his money in a company.

Venture Capitals: venture capital (VC) is a form of medium-long term investment in unlisted companies with high growth and growth potential which are in the start-up phase, carried out mainly by

institutional investors with the objective of obtaining a capital gain from the sale of the acquired stake or from the stock exchange listing.

Private Equity: Private equity is a medium to long-term form of investment in unlisted companies with high growth and growth potential, carried out mainly by institutional investors with the aim of obtaining a substantial capital gain from sale of the stake acquired or from the stock exchange listing. Differently from a business angel a venture capitalist does not invest its own money.

Banks: banks are obviously among the main stakeholder when applying for a loan. Many banks have specific programs dedicated to new businesses and start-ups with specific credit rating systems to support small businesses.

3.4 What do I need to know and do to find investors

Beyond the available funding possibilities, it is very important to look at your start-up through the critical eye of a potential investor.

Specifically, there are some aspects that must be taken into particular consideration when developing a business idea, especially in highly innovative sectors.

To obtain participation and interest from investors, entrepreneurs must:

- Meet a need in society. To meet a need or an expectation of a specific target is the key to give solid basis to a business idea.
- Have a precise idea of the market. This means to develop your business idea based on accurate market data analysis. Any investor expects you to know the context in which you want to operate very well.
- Look to global markets when developing their idea. Looking at too local needs or too narrow targets can in fact be very limiting.

- Proceed by testing products and services. Tests' results can give clear feedbacks regarding the possibility of success or failure of a business idea.
- Work with a multidisciplinary team. It is important that in the team of a start-up all core competencies needed for business development are in place. This is a necessary condition to succeed in the business development but also to meet investors requirements: one of the first assessments that an investor makes, in fact, is to look at the quality of the team and the skills of the founders.

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Unit 8 Resilience / Efficiency / Time Management

#resilience

#efficiency

#timemanagement

#problemsaretemporary

#optimism

#buildyourself

Content

Summary of the unit

1. Introduction to Resilience

Learning Outcomes

2. What is Resilience?

2.1 Definition of Resilience

2.2 Importance of Resilience

2.3 Why building resilience is important for entrepreneurs?

2.4 How to build resilience?

2.4.1 Accept that problems are part of life

2.4.2 Learn from mistakes and failures

2.4.3 Optimism

2.4.4 Create new connections and friend

3.4 Personal Resilience Plan

Initial Self – assessment

Final Assessment

Definition of Efficiency

Techniques efficient people use

- Stop Multitasking
- Use Appropriate Communication
- Plan Projects
- Highly efficient people plan their day beforehand
- Highly efficient people eliminate distractions

Introduction Time management

Definition of Time management

What is time management?

Why building time management is important?

Time Management Tips to improve productivity in the workplace

- Set goals correctly
- Prioritize wisely
- Set a time limit to complete a task
- Take a break between tasks
- Organize yourself
- Remove non-essential tasks/activities
- Plan ahead

Exercise

Initial Self – assessment

Final Assessment

Summary of the unit

This section presents entrepreneurial skills including resilience, time management and efficiency. The readers of this publication are students who will be engaged in activities to explore and develop new skills that are important in their career also in STEM. Entrepreneurial skills have great impact in leading successful venture.

Successful entrepreneurs have used all the necessary resources, opportunities, and skills to compete in the market.

Understanding, learning, and training resilience, efficiency, time management lead many entrepreneurs to be successful in their venture and their career as these are three of a more complete set of necessary skills to drive businesses forward.

Resilience, time management and efficiency help entrepreneurs to be visionary, to be aware of problems before they arise, being self-controlled, reduce stress, increase creativity, productivity, and efficiency.

In this section will be learned the threes set of skills as well doing some activities that help students to develop their resilience level and in the final to have self-assessment to measure the level of resilience they developed.

Learning Outcomes

In this section students will be introduced with the Resilience, having a group activity and ask them if they have an idea of the word resilience, the meaning and to give some examples of resilient person.

Exploring the importance of resilience and why it is important, how to build resilience through personal resilience plan will be some of the activities in this section including the initial self-assessment.

#resilience

1. Introduction to Resilience

“I have not failed. I’ve just found 10,000 ways that won’t work.” ~ Thomas A. Edison

Resilience is important part of pushing forward or boosting enterprises.

Environment is dynamic and rapid changing, filled with many barriers and challenges especially for new entrepreneurs where achieving the success is hard. Resilience plays an important role of being an entrepreneur in managing stress and resources in the workplace.

Resilient entrepreneurs are more likely to be successful in their enterprise rather than fail and lose the resources and money invested.

2.What is Resilience? Group Activity

Exercise (For Participants)

Tool: Finding what Resilience is!

Participant: Group activity

Time: 30-40 minutes

Supplies: Sheet of paper, a pen and whiteboard

Instructions:

Discuss with the group what resiliency is (the ability to bounce back, bounce forward from tough times). Have each participant write down their own definition and provide an example of when they or someone they know has been resilient.

Form two large concentric circles. The participants in the inner ring circle share their definitions. Those in the outer circle share their example. Then, rotate back to the inner circle for them to share, and outer circle then shares their definition.

Rotate turns until everyone has shared. At the end of the exercise, draw a Y chart on a whiteboard or large paper for everyone to see. As a group, brainstorm the essence of what it looks like, feels like and sounds like to be resilient. [1]

2.1 Definition of Resilience

Here are some definitions which many scientists define resilience differently as they view it in a different perspective.

Fatoki defined resilience as the ability of an individual to bounce back after adversity and cope with challenges in order to obtain positive results. (Fatoki, 2018) [2] Resilience is a dynamic adaptation process that allows entrepreneurs to continue to be forward looking despite harsh market conditions and the destabilizing events that they consistently face in the marketplace (Bernard, Barbos 2016.) [3] Psychology plays an important role of being an entrepreneur in managing stress and resources in the workplace. According to psychologist, Susan Kobasa, there are three main elements that resilient people possess: challenge, commitment, and control.

You can develop resilience in several ways. First, keep a healthy lifestyle, exercise regularly and get enough sleep. This combination will allow you to control stress more easily. [4]

2.2 Importance of Resilience

Research has since established resilience as essential for human thriving, and an ability necessary for the development of healthy, adaptable young people. It's what enables children to *emerge* from challenging experiences with a positive sense of themselves and their futures. Children who develop resilience are better able to face disappointment, learn from failure, cope with loss, and adapt to change. We recognize resilience in children when we observe their determination, grit, and perseverance to tackle problems and cope with the emotional challenges of school and life. [5]

All skills are important for entrepreneurial career. The more you know, the lesser probability to make mistakes you have.

Many famous entrepreneurs failed even for such a minor thing. They were rejected many times as a worker, they failed the exams or not finished university yet.

Resilience pushed them forward, drove them to seek new challenges and face many problems to increase their income and reach satisfaction. Resilience prevented them to give up on their idea.

Many scientists have failed from the first experiment. Failure is a lecture to take another corrective actions and to be one step closer to the final experiment.

Here in this link below is one story of Jack Ma, which have failed and rejected many times. His resilience level was high and now he is the owner of the Alibaba.com

<https://www.youtube.com/watch?v=Qx-zU9S5oOw>

2.3 Why building resilience is important for entrepreneurs?

Resilience gives people psychological strength to face stress and difficulties, it serves as a roadmap to find solutions -Combination all skills that entrepreneur possess leads to find himself or herself where they are lost or where the issue is. Resilience in the workplace cited by Fernandez (2016): "I've seen over and over again that the most resilient individuals and teams aren't the ones that don't fail, but rather the ones that fail, learn and thrive because of it.[6]

By managing stress, emotions, pressure under work, all fails that might happen can be reconverted as gained experience.

It increases self-awareness – Resilience helps entrepreneurs to rise their head and see what happens around. Entrepreneurs as much aware they are the better decisions they make.

It Reduces stress and conflict- Resilience won't get away your problems, but it helps to soften problems and to handle with less stress and not to take things emotionally. As things started to be emotionally than many problems arise. New technology is a good way to use resources for free such as software applications that provide and manage your agenda, appointments, reminders, which lower the stress and create space to have time to manage things and increase productivity over day.

2.4 How to build resilience?

Resilience is not something that you are born with or inherited by parents. If you haven't learned and practiced it, it is difficult to have high performance in being resilient. Startups face different challenges to survive in the market. Optimism, accepting that problems are part of life, learning from mistakes and creation of new connections is a sign that resilience is present in yourself.

Factors that lead to resilience include optimism, the ability to stay balanced and manage strong or difficult emotions, a sense of safety and a strong social support system. Resilience is built by attitudes, behaviors and social supports that can be adopted and cultivated by anyone. (Fernandez 2016). [7]

2.4.1 Accept that problems are part of life

All humans are not without mistakes. Sure, we know that every mistake and failure has its own price but it doesn't mean that our career is done. It's a big mistake if we think that we are broken or yell, damn what happened to me. One must always need to think of other ways to overpass problems, to find solution, and of course to accept that mistakes are part of life.

2.4.2 Learn from mistakes and failures

Experience from failures and mistakes provide many entrepreneurs with information for future actions and right decisions. Always aim to convert failures into learning experiences. Experts say that if you have trouble to learn from mistakes than you should watch how a baby learns to walk. The child starts with hurdles and fall. By learning from mistakes gradually develops balance and confidence.

2.4.3 Optimism

Optimism is the support that gives individual ability to believe that good thing will happen to planned events. Scheier and Carver (1985) [8] defined optimism as a general belief that good

things will happen rather than bad things in the future. Thus, optimism is good for individuals because they set their minds for good expectations and success.

Optimistic people believe that their venture have low chances for failure, while pessimists believe that they have high probability for failure. That is why being optimistic builds entrepreneur's belief in good expectations for their results. Being optimistic doesn't mean that you will have success in the venture. For sure success doesn't depend just being optimistic, it depends from a good plan, hard work and well preparation.

2.4.4 Create new connections and friend

Having good relationship with relatives and friends is an important part of your career. The more connections you have the more support you have. For example, you might have financial problems for a specific period of time, and relatives or close friends might help you to overpass the crisis, or even to help you in creative ideas, find solutions, or in decision making may advise you based on their experience.

3.4 Personal Resilience Plan

Activity (For Participants)

Tool: Developing Personal Resilience Plan

Participant: Solo activity

Time: 30-40 minutes

Supplies: Sheet of paper, a pen and whiteboard

Instructions:

Going through this exercise can help you create a plan for managing resilience and help you learn more about yourself in terms of your strengths and weaknesses.

Utilize the following outline:

- Identify the resilience skills and strategy you currently use. What works well?
- Identify 2 resilience skills you would like to develop.
- Write 1 goal for each of the skills you identified.
- Identify potential obstacles in developing these skills. [9]

Please download the Resilience Building Plan Worksheet here:

https://www.acponline.org/system/files/documents/about_acp/chapters/or/resilience_building_plan_worksheet.pdf

Initial Self – assessment

Circle the number which describes you in this situation. At the bottom of the table is the Score Interpretation, where by calculation of the scores, defines the level of the resilience you have. Comments guide you to improve the level of the resilience you have.

How Resilient are you?

1= Never or Rarely, 2 = Sometimes, 3 = Often, 4 = Always or Almost Always

a. Resilient people do not experience stress	1	2	3	4
b. Optimism pushes me forward to achieve my goals.	1	2	3	4
c. Before any important decision I consult with someone that has experience with the issue and is kind to me.	1	2	3	4

d. I establish clear mirror to my tasks.	1	2	3	4
e. The job that I do, it strengthen my resilience	1	2	3	4
f. The job that I'm working is satisfying me and I'm enjoying it.	1	2	3	4
g. I have excellent contact with my boss and colleagues.	1	2	3	4
h. I have colleague that often wants me to charge to do his tasks. It annoys me.	1	2	3	4
i. My supervisor treats me fairly.	1	2	3	4
j. You are born with resilient skills, and there is not much you can change about it.	1	2	3	4
k. It is possible to become less resilient over time	1	2	3	4
l. Resilience tends to get stronger as people get older	1	2	3	4
m. Having a good friend can have an impact in how resilient you are.	1	2	3	4
n. My work gives me dignity and pride.	1	2	3	4
Sum score:				

Score Interpretation

Score	Comment
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15-28	Your score have difficulty in managing stress. You need to learn, research and experience new things to increase your level of resilience. Important it is that you are not giving up on improving yourself and it is important to remember that everyone has some degree of being resilient.
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-
- 29-45** The good news is that you have already taken the step to strengthen your resilience. Your level of resilience is in growth. You can make decisions but for important ones need to consult with someone that has strong experience of resilience. Still you have to learn and research on this category to strengthen resilience.
- 46-56** You have accumulated high level of resilience. Based on your skills and experience you can see the risk so far and make important decision for that affect your business and success.
-

#efficiency

Definition of Efficiency

All enterprises want to rise their productivity by increasing efficiency. The word efficiency is quite familiar and it is often usable especially in enterprises. Different definitions are mentioned regarding with efficiency. According to Cambridge Dictionary efficiency is a situation in which a person, company, factory, (enterprise), uses resources such as time, materials or labor well, without wasting (time and energy).[10] When efficiency is implemented, enterprises will start using less resources and less time to produce more units of work or doing the right things in better way.

Techniques efficient people use

Stop Multitasking

Many people fool themselves into thinking they are good at multitasking. But actually very few can solidly focus on more than 1 or two tasks, particularly if they require focus and depth. They fool themselves into believing they are getting more done when in reality they are accomplishing less and the quality of the work is poor. Really efficient people know that concentrated effort with few distractions leads to better work product in faster times. Otherwise the work may not be up to par, which means wasting even more time and energy going back to fix the mistakes.

Use Appropriate Communication

Poor communication is a huge time-waster. A fast email transmitting bad instructions or an offensive attitude can end up adding many unnecessary hours to a project. The masters of efficiency take a little

extra time to think through their communication in the beginning. They consider their objectives when deciding to get on the phone. They craft their emails with purpose using the exact language necessary to get the desired effect. It takes a little more time at the beginning but can actually shave days from a project.

Plan Projects

Effort is often wasted when people don't have a clear path to success. Impatience is the direct enemy of efficiency. Really efficient people know they must take the time to research and break down a project into basic steps in order to achieve success consistently. Yes, planning takes a little time. But considering the challenges, process and responsibilities in advance will make for clear direction with the team. With good communication everyone can move confidently and efficiently to achieve all the objectives in record time. [11]

Highly efficient people plan their day beforehand.

It's quite simple, really. When you don't plan, you plan to fail. That is because you don't have a focus and can easily be swayed by other people's demands of money, skills or even your presence. Highly productive people plan out their day beforehand with written 'to-do' lists, appointments, and planners to help them focus their activities. This means they are not easily swayed by other people's demands. They know exactly what they have to do each day before they set off to work. Plan your day beforehand with an end goal in mind. It will improve your efficiency and empower you to say "no" to anything that might steal your focus from your core goals.

Highly efficient people eliminate distractions.

Distractions have gotten so bad today that Ed Hallowell, former professor at Harvard Medical School and author of *Driven to Distraction*, says we have "culturally generated ADD." From scintillating apps on our handsets to social media sites like Facebook and Twitter and loud music from the next door neighbor, we have all kinds of distractions present 24/7. Highly efficient people block all these distractions by any means necessary, including switching off their phones and disconnecting from the

internet to get work done. They know every minute you're sitting around checking Facebook, you're not taking action to get you closer to your dreams. Eliminate distractions to protect your productive hours, focus your attention and get what need to be done, done right. [12]

#timemanagement

Introduction Time management

In this section students will be introduced with the Time management. What time management is? Explore ideas how to manage time efficiently. Discuss the importance and the value of time, how to spent in a proper way and have benefit from it. Once the time passed cannot be back again. Time Management Tips will help students to improve time productivity, included together with the \$86.400 activity in this section.

Spending more time to learn about time management is more efficient and more productive than to work without defining specific activities to work for a long hours and putting itself in stress. Good time management helps to shorten the time to accomplish a task, which leads to more free time to organize the following task with lower stress levels, lower energy consumption and allowing room for creativity and success.

Definition of Time management

Description of time management, individuals first determine their needs and wants and then rank them in terms of importance. Specific activities include setting goals to achieve the needs or wants and prioritizing the tasks necessary to accomplish them. The tasks of utmost importance are then matched to the time and resources available by planning, scheduling and making lists.[13] According to Lakein's (1973)

What is time management?

“Time management” is the process of organizing and planning how to divide your time between specific activities. Good time management enables you to work smarter – not harder – so that you get more done in less time, even when time is tight and pressures are high. Failing to manage your time damages your effectiveness and causes stress. [14]

Why building time management is important?

“WHEN THE TIME IS GONE, YOU CAN NEVER GET IT BACK.”

STEPHEN KING

Once the time is passed it cannot be recovered again.

Good time management enables entrepreneurs to anticipate the pros and cons of some of the activities which may require more time, better planning and higher allocation of other resources. It helps entrepreneurs to fix priorities in their work thus approaching tasks of their businesses systematically.

[15]

Prioritizing tasks is time consuming, because you delegate the role to each of employee that is expert in their field, you give the information what tasks are more in priority to finish, in a given period of time or deadline.

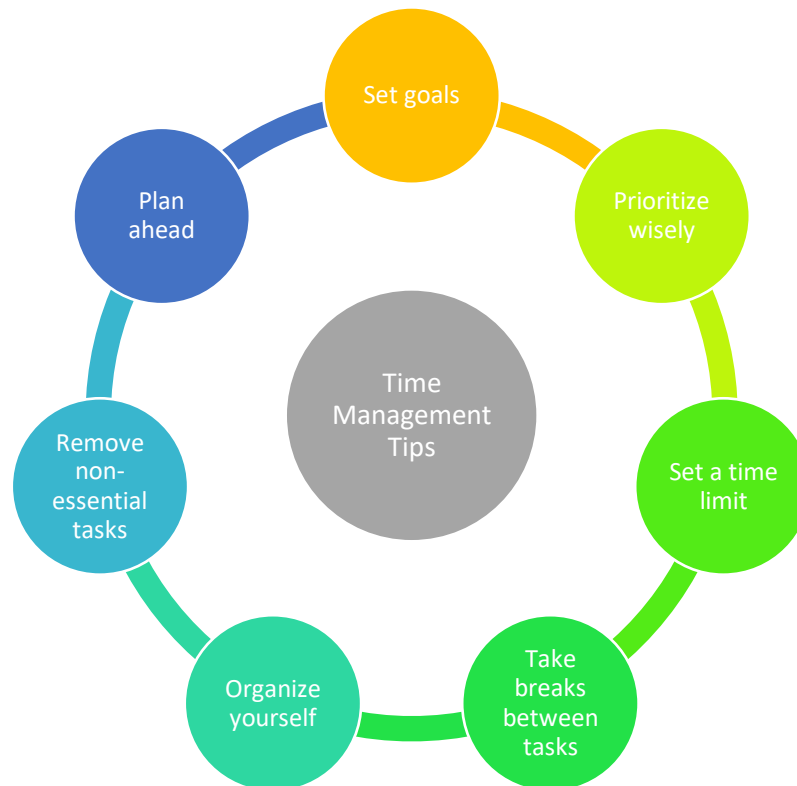
Being efficient and time allocation, aren't the task just from the leader but also teamwork must be engaged on time productivity and efficiency.

Increases worker efficiency and productivity in the workplace – As the delegation of information and communication is distributed among employees on time, to the right person, it means that we are organized and ready to use limited resources to achieve maximum goals and results. When the employees output is efficiently, operational cost decrease, enterprise rise its productivity, profitability and has advantage over the price.

The value of time motivational speech

<https://www.youtube.com/watch?v=5e6VriahPsQ>

Time Management Tips to improve productivity in the workplace



1. Set goals correctly

Set goals that are achievable and measurable. Use the SMART method when setting goals. In essence, make sure the goals you set are Specific, Measurable, Attainable, Relevant, and Timely.

2. Prioritize wisely

Prioritize tasks based on importance and urgency. For example, look at your daily tasks and determine which are:

- Important and urgent: Do these tasks right away.
- Important but not urgent: Decide when to do these tasks.

- Urgent but not important: Delegate these tasks if possible.
- Not urgent and not important: Set these aside to do later.

3. Set a time limit to complete a task

Setting time constraints for completing tasks helps you be more focused and efficient. Making the small extra effort to decide on how much time you need to allot for each task can also help you recognize potential problems before they arise. That way you can make plans for dealing with them. -do” list for the next workday. That way you can hit the ground running the next morning.

4. Take a break between tasks

When doing a lot of tasks without a break, it is harder to stay focused and motivated. Allow some downtime between tasks to clear your head and refresh yourself. Consider grabbing a brief nap, going for a short walk, or meditating.

5. Organize yourself

Utilize your calendar for more long-term time management. Write down the deadlines for projects, or for tasks that are part of completing the overall project. Think about which days might be best to dedicate to specific tasks. For example, you might need to plan a meeting to discuss cash flow on a day when you know the company CFO is available.

6. Remove non-essential tasks/activities

It is important to remove excess activities or tasks. Determine what is significant and what deserves your time. Removing non-essential tasks/activities frees up more of your time to be spent on genuinely important things.

7. Plan ahead

Make sure you start every day with a clear idea of what you need to do – what needs to get done THAT DAY. Consider making it a habit to, at the end of each workday, go ahead and write out your “to-do” list for the next workday. That way you can hit the ground running the next morning. [16]

Exercise (For learners)

Tool: \$86,400 activity, using time wisely

Participant: Solo activity or group

Time: 30-60 minutes

Supplies: A1/2 paper and a pen

Instructions: It’s an excellent exercise to comprehend the importance of using time wisely. We call this first time management activity \$86,400.

Here are the rules:

- Everyone has \$86,400 dollars to spend
- You can do anything with this money, except for multiplying their current sum
- You must spend it within a day. Otherwise, you lose it
- And you can’t bank more money per day

Now with your team write down how they would spend their \$86,400.

When everyone has completed their list, gather your team and discuss why and how they spent the money.

As you've guessed by now, this time management activity is not about money. Each day has 86,400 seconds and how you choose to spend them makes a world of difference.

What happens when you approach your time with this kind of mentality?

You can better manage your daily activities and get the most out of the things that you choose to pursue.

Write this reminder down and keep it near your workspace so that you remember it on a daily basis.

[17]

Initial Self – assessment

Circle the number which describes you in this situation. At the bottom of the table is the Score Interpretation, where by calculation of the scores, defines the level of time management you have. Comments guide you to improve the level of the time management you have.

How much your level of efficiency and time management is?

1= Not at all, 2 = Rarely, 3 = Sometimes, 4 = Often 5= Very Often

a. I organize my desk by 1 2 3 4 5

prioritizing tasks

b. I share 1 2 3 4 5

appropriate

information to my

subordinates in

order to be more

efficient

c. I meet deadlines
before the deadline
date

1 2 3 4 5

d. I never use
Brainstorming.

1 2 3 4 5

e. Always innovation
tools are welcome to
me and my colleagues.

1 2 3 4 5

f. While new software
applications are
implemented in our
work, it doesn't take to
much time to learn and
use.

1 2 3 4 5

g. Sometimes in the
meeting it is not clear
what my supervisor
said, I ask him later.

1 2 3 4 5

h. I do multitasks at the
same time.

1 2 3 4 5

i. For complex issues I
use video conferencing
with screen share or
call. it is more efficient
than email.

1 2 3 4 5

j. Always I improve and professionalize my task, tent to produce more outputs with less inputs.

k. I am looking for new ways to avoid wasting time and increase productivity during the work.

l. Suggestions from employees always are welcome.

m. New software applications are welcome to my working place

n. I tent to use financial resources in the right way.

Sum score:

Sc

Score Interpretation

ore

15-35

You need to keep working in efficiency and time management. It is inefficient to fill your day with too much tasks, firstly prioritize from the important one to the less important one. Use resources efficiently and do not focus just to work harder but work smarter.

The good news is as you are trying to reach efficiency, soon you will do and profit much more with less time.

36-55

You are in the right way with your efficiency and time management level. However you are capable to be more efficient, to utilize resources maximum and to increase productivity.

Take the time to think about how to increase efficiency in your enterprise and how to manage resources efficiently.

56-75

Congratulations. You are excellent.

You understand the role of being efficient and time management. You understand how to manage daily activities and focus on which task has more priority.

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