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Tesi di Laurea Magistrale

"Analysis of Project Management practices in the start-up stage of a company"

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ABSTRACT

The start-up phase of an enterprise is a critical stage for its future development, the company is subject to many external forces that can shut-it-down or modify it.
Nowadays the start-up is an entrepreneurship movement spread all around the world.
Even though there is friction between project management and start-up, the collective imaginary see the start-up as a fluid organization, that work in complete freedom and has the ability to pivot and change business plan with few problems. In part this is true, start-up doesn't have the traditional restrictions and problems of a developed company, but they have a different set of problem.
The project management (PM) science is becoming to be recognized by all economic science as fundamental to run a healthy company and project. Many tools developed during the years by the project manager can be used during the implementation of a start-up company considering the start-up as a project.
This thesis report the status of project management practice implemented in the start-up and the difficulties encountered during the implementation of some of them. The start-up used for this case study is "OverAlp", a newborn start-up located in Biella, operating in the tourism sector. To manage the project was implemented an agile Kanban board on Atlassian Jira, the agile approach was combined with a versioning model; this mix allows to properly manage the single version without focusing the strategic view of the company and allowing it to pivot between one version and the other. The starting point for version 0 was based on the Business Model Canvas for the Minimum Viable Product.

At the end of every iteration was made a Gap-analysis to determine the efficacy of the work and the PM implementation, in conjunction with the Gap analysis also the metric about completion of the task were extracted and analysed from the Jira software.

The result from the data confirms that due to the intensive human capital nature of the start-up, not all the project management practice were easy to implement and weren't adopted by all the team member rapidly. On the contrary, when implemented, the PM method allows all the member to have a clearer vision about their work in progress.

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INTRODUCTION

"In real life, a start-up is a portfolio of activities. A lot is happening simultaneously: the engine is running, acquiring new customers and serving existing one; we are tuning, trying to improve our product, marketing, and operations; and we are steering, deciding if and when to pivot. The challenge of the entrepreneurs is to balance all these activities." [lean startup- Eric Ries]

Entrepreneurship and project management are considered 2 separate discipline (18) with different background and evolution path, they may stay far from each other as they do not share similar discourses and codes.

This may be considered good, however, as this separation left the freedom to develop a creative way of thinking in both of the disciplines. This separation between the 2 subjects is not clear and there is much contamination from both side, the expansion of the start-up market over the last decade has lead to an increase in the need for project management tool able to manage start-up and new company, neither less the big companies are starting to use this tool to develop new product or company spin-off, as proven by the diffusion of Open-Innovation program.

After a literature review, to manage the start-up project, we chose to implement a Portfolio Project Management. The Business Model Canvas developed by the Start-Up become the basis for the definition of the main activity that will be seen as a project and populate the portfolio.

For the daily operation management, the team will follow the Agile method (based on Agile manifesto), using the Kanban technique and method, so the work of the company could remain flexible and focused on objectives. Using this tool gave a great amount of freedom to the team, it remains possible to implement Lean startup principle like Pivoting and Iteration cycle.

In order to maximize the usage of data and resources, we want to define a system of metric able to track the progress of the start-up using a quantitative approach.

During the final phase of every implementation, we will run a GAP analysis, this will allow us to have a critical and semi-quantitative point of view of the project.

Purpose

The main purpose of the thesis is to analyse the current situation of PM technique implementation in a start-up environment, by taking a “snapshot” of a real start-up, even though working on a single start-up doesn’t have a statistic relevance, it allows us to go more deep on the exploration of the mechanism that prevents or help the implementation of PM practice.

We will use a practical approach collaborating with the start-up “OverAlp”, during the first phase of work we will apply the lean methodology to define some relevant element (Value proposition Canvas, Business model Canvas) collaborating with the team members.

After having defined those elements, there will be an implementation phase in which we will introduce to the team the Project Management technique that they will use to enhance the project (Kanban, Lightweight PMO)

This work will be part of an iterative cycle, the start-up will use a linage logic, using this method allow the start-up to change, evolve and adapt respect to the external and internal environment; As a result of that, we will be creating ***a virtuous circle*** of growth.

We will follow the team during the month of February and part of March, the team expects to finish the first iteration cycle (Testing the b2b model).

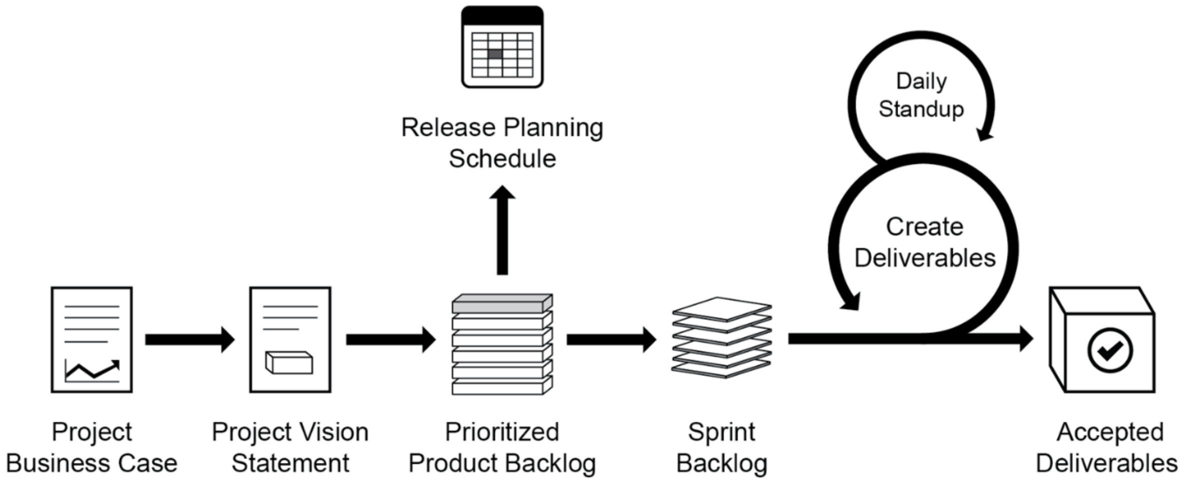


Figure 1 (iteration loop)

The lineage logic is a critical element of the start-up development, in our case the business model is evolving with the progression and development of the start-up.

The initial business model (b2b market) is almost a traditional tourism agency, the plan is to steer towards a more customer/user-centric product,

the second version is similar to the previous one but it is open to the b2c market, the data collected during the development and running of the first version will be used to achieve better result.

The 3rd main version will see a radical change in the business model and channel, the system will switch the customer reach method from a push model to a pull model in which customer can ask or create content, this evolution will be possible after the reaching of a user critical mass, in this version the customers are induced to create a community.

The last release of the platform (version 4) regards the development of a social APP able to connect the user and assist them during the experience, the business model differs from a classical travel agency, now OverAlp is a social platform for outdoor.

There are many possible features to implement in the APP, some of the most relevant and prior are: GPS tracking of the paths, detailed Info about the experience from other users, social feedback and review, a matching system for users that want to share experience based on preferences.

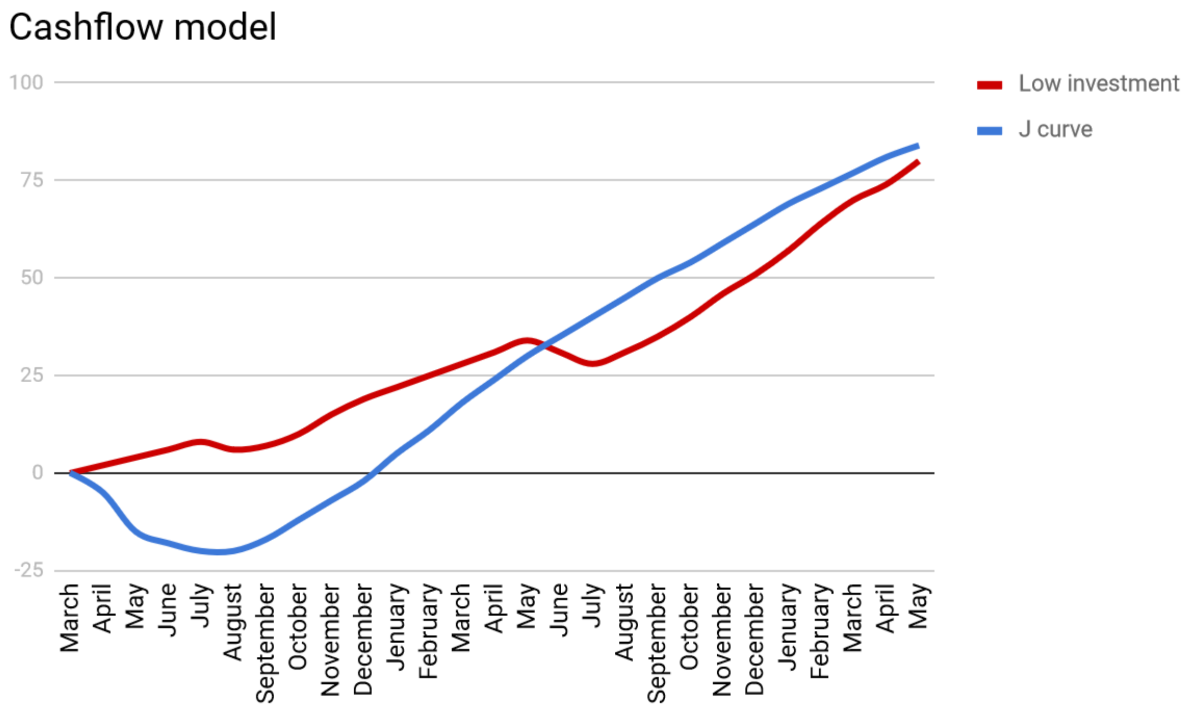


Figure 2 (different cashflow model)

Objectives

The objectives of the thesis are to undertake a semi-quantitative analysis of the Project management implementation in the start-up.

After the completion of every iteration loop, we will make a gap analysis of the Project using the IPMA Project Excellence Baseline method, this analysis gives a semi-quantitative result of the project management usage on the project.

The other analytical tool that used to extract data is Jira, which is the chosen software to implement the PM technique, thanks to the software it is possible to have precise information about the task and sub-task; it is possible to record the start and completion date and the resources allocated to the task completion. This allows us to extract some velocity metrics, those are helpful for the future work since it will be possible to have a better estimation of the time required to finish the task and the “production” rate of the different team member. This system is heavily dependent from the iteration cycle logic since every time is it necessary to rebalance and trim the job workload and assign it to the right resources, by iterating this procedure is it possible to achieve an optimal solution.

Research method

OverAlp is a start-up based on Biella. The company aims to solve a big problem regarding the Italian Alps tourism and more in general outdoor experience; the lack of organization regarding the outdoor activity.
The guides due to their work nature are not always easy to reach, they spend most of the day outside and in place with bad network signal; this problem can easily escalate for a private customer and the company customers can’t wait the reply time of the guide to plan the activity. Right now there is no reference website in which is possible to book for a day the guide necessary to bring a group to a certain alpine experience or participate in this kind of activity. Also, even if exist an official alpine guide registers, there is a phenomenon of “illegal” guides, that are mountain expert without licenses offering the service of an alpine or naturalistic guide, without any insurance for the customers.

With OverAlp, the founder wants to give to all the user the possibility discovers and enjoy the Italian Alps in safety and accompanied by the best guide.
The solution for the problem is to create a platform (website/app) in which the customer can choose and book the experience from a selected list of “best Italian alpine experience”.
The platform has an intermediary role necessary to manage the guide calendar and give information to the customer.
It is relevant to say that all the member have more than 30 years of working experience and the project is self-financed by its founder, the team is composed of 5 founding partner:

The financing method has an influence on the cash flow generation model, being not dependent form an external investor but from private funds allow more freedom on the resources allocation, but on the other hand the company is not pushed to follow a cashflow model characterized by big investment in the first phase expecting a big return after the “valley of death” chasm. The company is trying to achieve from the beginning of the operation positive result by getting new customers and the first revenue starting from the MVP

Stefano Maffeo: **Operation heads,** Stefano is a geologist, founder of the studio “Equipe Arc-en-Ciel”. The studio is a reference point for all the outdoor activity in the province of Biella, during the last 20 years it has been the organizer of many different cultural and sports outdoors activity for private, association and business.

Carlo Gabasio: **Product manager & partner relationship,** Carlo is a long time Alpine guide and exploratory, currently is the head of Alpine guide instructor (ski-alp, canyoning, climbing). Thanks to his deep knowledge of Alps and mountain mixed with the experience of more than 40 years of work on the field, he’s able to create a perfect “experience” package for the outdoor.

Paolo Chiarle: CEO & Business Developer, Paolo has a strong background, he covered different position in many international product companies (Robe di Kappa/ Cuki/ Saiag), ranging from financial risk management to core business activity and purchase. His international business experience mixed with the passion for the outdoor let him fit perfectly in the role of CEO and Business Developer

Guido Chiarle: Partner relationship & Marketing, Guido was GM of the Maplus ski, marketing division. During his career Guido has developed a large network of knowledge in the ski and climbing world from product company manager to the national team coach, he is a passionate skier and climber, recently he completed the course to be an assistant alpine guide.

Paolo deMagistris: CTO & project Manager: Paolo is a professor of Politecnico di Torino. Formerly it was founder and GM of a construction company, he is a certificated (IPMA) Project Manager and longtime entrepreneur. He’s bringing to the team the experience developed during years of Project management, thanks to his IT knowledge developed during the years of work he’s CTO

The research started in December whit some skype meeting with a different member of the team, during this period the team member has developed some preliminary document about the start-up. The documents available were SWOT analysis. Business Plan, Lean canvas and a company presentation, starting from this document it was possible to develop a well-defined Business Model Canvas for the first iteration cycle.

2 Literature review

The actual status of PM

Throughout the years' many schools of thought have been formalized, every school represent an evolution from the previous one that is adapting to the cultural, social and technological change.

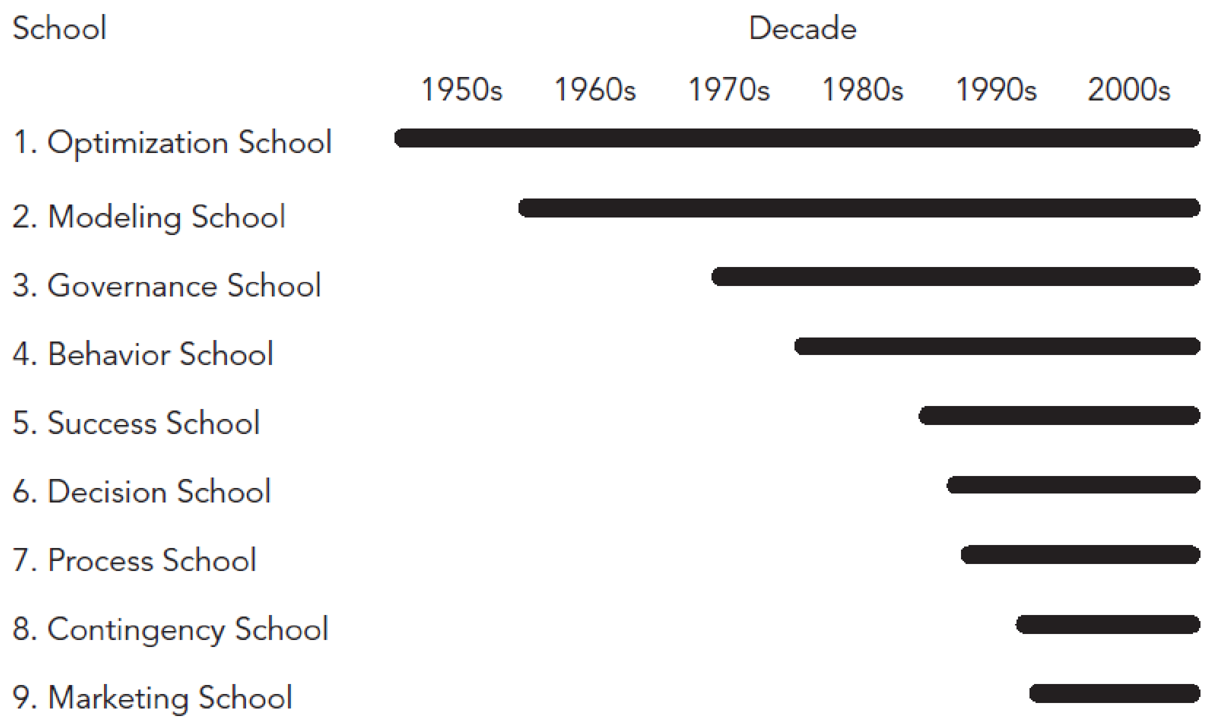


Figure 3 (evolution of project management)

Following this evolutive path, many different techniques for the project management were created, modified and mixed until now (Waterfall, Extreme programming, Scrum, Agile, Kanban, etc..).

The Optimization School

The Modeling School

The Governance School see the project as a legal entity, there are 2 possible in views:

- The project is considered as an interface between the client and the contractor, so it's needed to manage their relation
- The project is considered as a legal entity, with his own right and regulation, aimed to manage the relation between different actor

This school of thoughts is originated from the construction project management, the temporary nature of this work made necessary to consider the project as a temporary organization.
The main area on which the literature focus are transaction cost associated with the project and the principal agency relationship between client and contractor.

The Behaviour School see the Project as a Social System, the focus is on the organizational behaviour, team building and leadership ability of the project manager, communication and human resources management.

The Success School focus on the outcome of the project as Business objectives.
to define the success and failure there are 2 main components:

- Project success criteria, the measure in which the outcome will be judged or the business objective that will be achieved.
- Project success factor, the variable that make possible to achieve great result in the project.

The usage of PM software us becoming more relevant since they allow to track performance and find correlation between the different variables and the outcomes

The Decision School the focus is on the main factors relevant to project decision-making process such as the initiation, approval, and funding; also the project completion factor are "taken into consideration, termination, and conclusions about their success or failure.
Between the relevant factor is considered the presence of a Project portfolio and the existence of similar project.

The Process School: The Project is a roadmap that take you from the starting point to the desired state, the focus is on defining structured processes from the conceptual start of the project to achieving the end objectives. Turner (1999) defines processes for the management of scope, organization, quality, cost, time, risk, project life cycle, and management life cycle those are the basis for the *"A Guide to the Project Management Body of Knowledge" (PMBOK®Guide)* An area of this school is represented by project categorization, different processes can and should be applied to the different categories of project. (Crawford, Hobbs, & Turner, 2005;Shenhar & Dvir, 1996, 2004)

The Contingency School: this school adapt the project management process to the type of project. Every project is different so the approach and the leadership style adopted must be different every time.
The project categorization theory help to ensure the alignment between capability and strategy, and the competency required to manage different type of project

The Marketing School: This school focuses on the management of early phases of projects, identification of stakeholders and client needs, stakeholder management. this school can productively pursue the integration of strategic and tactical components of business success, address the linkages between strategic
goals and project objectives,

Startup movement status

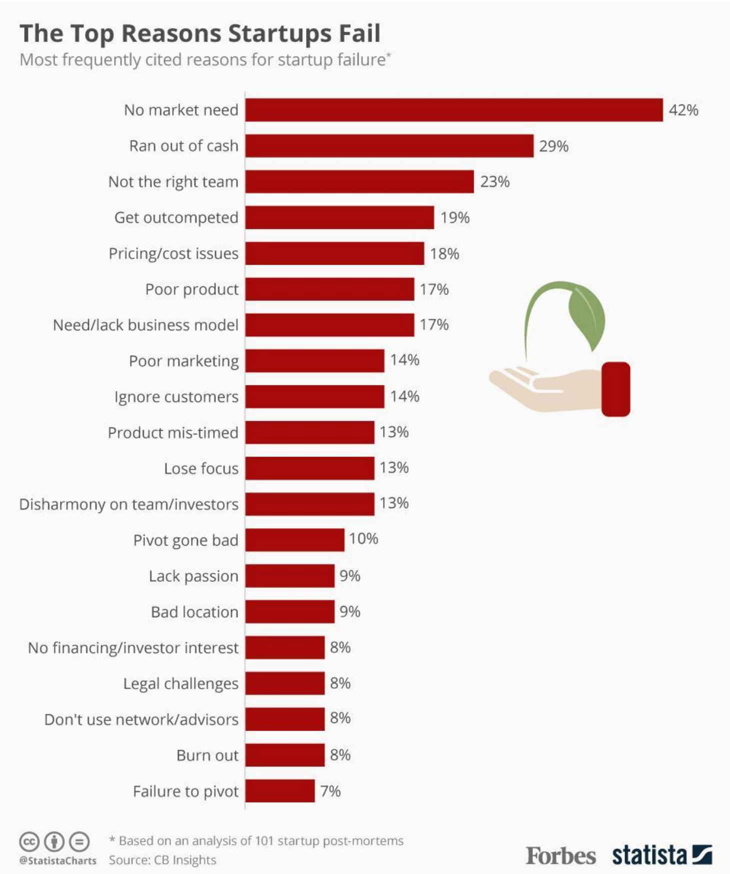


Figure 4 (Reason for Startup failure)

The trends in recent years are showing that an increasing number of small, innovation-driven start-up companies are shaping the future of business operating through internet platforms. Thanks to the favorable condition, anyone can become an entrepreneur.

Nevertheless, the start-up failure rate is around 90%; the primary reason for failure is the lack of market demand (42% of failure). Most of the other failure causes are due to lack of business management skills as even start-up backed by a great business idea can fail when faced by their first challenges.

Project management is acknowledged as a discipline able to greatly increase the efficiency of projects implementation. Therefore, if the creation of a business is seen as a project, then that discipline can be used to increase success rates for this kind of project, with beneficial methods arising in the areas of planning, budget, risk control, time management and the creation of a teamwork culture within the organization

The key success factor for a start-up

“A startup is a company designed to grow fast. Being newly founded does not in itself make a company a start-up. Nor is it necessary for a startup to work on technology, or take venture funding, or have some sort of "exit." The only essential thing is growth. Everything else we associate with startups follows from growth.” Paul Graham (2012) see growth as a differentiating factor for startups from a traditional new company, most a geographically unconstrained growth opportunity. A startup can be defined as a company working to solve a

problem where the solution is not obvious and success is not guaranteed
In the last decade, the new startups' accelerator industry is taking hold throughout the entire world, providing entrepreneurs with access to resources and offering the financial support necessary to turn their startups into lasting businesses.
Since the founding of the first accelerator in 2005 (Y combinator – Cambridge, Massachusetts), the industry has seen an enormous development all around the world.
Accelerator give to thousands of entrepreneurs access to capital, expertise from mentor regarding both the technical side of their business and the management side, this can help a young startup to scale-up in a proper way and jumpstart their business.

The link between PM and entrepreneurship

Shane and Venkataraman (2000) describe the entrepreneurial process as consisting of the discovery, evaluation, and exploitation of opportunities regarding the future delivery of goods and services. In order to take advantages of these opportunities, an entrepreneur needs to develop the needed supporting organizational structures. The process of new venture creation with its different sequenced activities shows various parallels with project-based organizing, which, however, have hardly been recognized by previous research in both domains (as an exception, see Kuura et al., 2014). For example, different sequenced activities such as target formulation, milestone-setting, hierarchical planning techniques, and cost-controlling are inherent to both project management and entrepreneurship. In start-ups, these activities are mirrored by “pitching on the opportunity” (target formulation), sequential go-no-go phases, often driven by investors (milestones), and the analogously accompanying management practices common to projects (Lundin et al., 2015). Projects are often celebrated “as a superior alternative to ineffective, rigid, boring bureaucracies” (Packendorff and Lindgren, 2014), this is the main reason why actors in entrepreneurial settings might welcome practices of project-like organizing.
(Lundin and Söderholm 1995) define four concepts, 4T framework, (time, task, team, transition) to demarcate projects, as a form of temporary organization, from other organized settings. Moving into the entrepreneurial context, the projectified character of new venture creation are clarified by various concept: time is considered as limited resources (e.g. relevance of time-to-market; time-limited financing); startups founder teams are typically small; the project of startups creation also includes transitions like the development of the business

model over time (iteration based on MVP), and changes in organizational structures as well as product or service adaptations (Pivoting); and, the founders execute rather unique tasks (e.g. development of a business model, product-market-fit), which are essential for the enactment of the startup.

(Ajam 2011) names three crucial phases of launching a new business: the business concept stage (utilizing project-based organizing in terms of business planning techniques, understanding of stakeholder expectations and requirements, realistic time and cost targets, risk evaluation and feasibility study), the development of the business concept stage (including project-based organizing relating to the work on financial, legal, and personal aspects), and the project delivery stage (implementation). Obviously, these phases of new venture creation appear to be highly projectified, as already becomes apparent in the commonalities of their language. One example is new product development, which draws from project-based practices and which is, at the same time, an important, more often then a not decisive aspect of startup creation (Kuura et al., 2014). Regardless of these similarities, the application of a project-based view on entrepreneurship, and particularly on startup creation, is not diffused in contemporary research (Lundin et al., 2015; Packendorff and Lindgren, 2014), startups being not intentionally temporary is one of the reason. (Midler and Silberzahn 2008), for instance, highlight the role of projects during start-up development, studying learning effects between projects. (Lindgren and Packendorff 2003) also propose a project-based view of entrepreneurship, characterizing even entrepreneurial acts as temporary projects, focusing on the possible seriality of entrepreneurship in an individual's lifetime. In a later work, these authors describe entrepreneurship as a temporary organizing process, containing temporally, spatially and socially distinct interactions, which they metaphorically call "projects." However, (Lindgren and Packendorff 2011, p. 52) emphasize their wish "to view entrepreneurial processes as" being a "discontinuous, discernible and disaggregated series of events" rather than squeezing them into the project management toolbox

Other Studies

The paper [Applying Project Management Methods to the Creation of a Start-up Business Plan: The Case of Blendlee] try to answer to the question:

What combination of project management methods could increase the success rate of start-up business plans? To research the possibilities of using project management methods in the creation of start-up business plans. The author has defined the following objectives to address the aim of this research:

1. Identify the key success factors in start-up business creation.
2. Analyze project management methods that can be used for the creation of start-up business plans.
3. Define the combination of project management methods for Blendlee's successful creation of a business plan.

The methodology used by the author was an empirical research design: a combination of a literature study and a single case study.

In the case analyzed, the creation of the business was divided into four project cycles. The scope of the study was limited to an analysis of the first cycle in the creation of a start-up; the development of a 'business plan'.

The research has shown that one of the key start-up success factors is the evaluation of the feasibility of the business idea and creating a realistic business model. Many entrepreneurs fail in the early stages of a venture because their business planning is poor, or there is no business planning at all. One of the most valuable tools when creating a new venture – the business plan – is often left out. Research has shown that this happens primarily because the founders do not have the skills necessary to create such a document or they are not aware of the value and benefits of a well-prepared business plan. This is another success factor, namely skills evaluation. In order to prevail with their businesses, entrepreneurs have to possess or develop a certain profile that is a combination of knowledge, skills/know-how, and personality traits. However, in many cases, this combination is not fully achieved. The same is applicable for the teams' composition.

The scientific literature review showed the possibilities of applying project management methods and methodologies in start-up business creation. One of the most widely used methods for project management is the project cycle approach, which can be easily compared to phases of business creation, and where the whole process can be divided into several phases, or ‘project cycles’. The PMBoK also suggests five process groups in order to achieve the intermediate deliverables of the project cycle. Because the start-up business environment is highly dynamic, scientists argue over the usage of the PMBoK methodology in this field, suggesting it might not be flexible enough to provide a full combination of methods that would fit start-ups in all areas of management. This is why they suggest a combination of several different methodologies in order to find the best fit for each specific start-up. Agile Project Management and Lean Start-up methods can bring more flexibility and a more customer-oriented approach to project management, and that PMBoK is highly beneficial in defining and efficiently managing the business processes. The research suggests that these methods, when combined, can be used for a more comprehensive management process, thus leveraging the possibilities of success in start-up creation.

Blendlee used the combination of PMBoK, Agile and Lean, each with different weight and role. The largest part of the combined methods of project management in the Blendlee case were derived from PMBoK. The founders divided the start-up creation into four cycles: the business plan cycle, the company establishment cycle, the platform development cycle, and the business growth cycle. This approach helped to create an overall business management approach and to structure the business creation processes using the project process groups. Another part of the combination was supplied by Lean Management principles and methods, which formed the basis of the whole Blendlee culture. The main characteristics were thus: the solution was created directly in response to the market and user/customer needs; the work was primarily carried out by working in the team. The last factor in the combination came from Agile principles and methods. Even though Agile is commonly used for software development, it has also been employed for overall project management. This was confirmed in the Blendlee case, where it was used in the initial business and non-software development phase, by the fact that work was organized in iterative cycles and in a collaborative decision-making manner; that there was constant result improvement; that excellence was cultivated in the execution of all tasks; that there was an atmosphere of open feedback and that constructive criticism was created (as a principle).

- **Application of the Lean Startup methodology in project management at launching new innovative products**

The Open Innovation Program (19), are gaining popularity in the last decade, they represent a good link between PM and Entrepreneurship.

The Open Innovation program are usually R&D project sponsored by the company in which a team of researcher (or lately startupper) are mixed with employee from the sponsor company, this mix of competence and mindset is usually managed by the employee of the company, that work as Product Owner and Scrum Master (in case of a SCRUM PM style).

The result achieved by those programs are positive, it would be interesting to make further research in order to asses analyze in a proper way the relationship between PM and entrepreneurship created during the Open innovation program.

3 tools

During the practical execution of this project, we will use one of the most significant AGILE tools (Kanban) and the Business Model Canvas (Alexander Osterwalder – 2008).
We choose not to use a SCRUM methodology due to the short span available for the research since the implementation of this method would have required a major change of mentality in the team.

Business Model Canvas

The Business Model Canvas (BMC) is a strategic management tool developed by Alexander Osterwalder (2008), it allows to quickly and easily define and communicate a business idea or concept. It is a one-page document which works through the fundamental elements of a business or product, structuring an idea in a coherent way.

The Business idea is the basis of the BM, it can be reassumed as:
create an offer that is a solution to a problem, sell it to the people and receive a compensation for it, find a way to make it available to most customer and still convenient (for the producer) in order to get a revenue on it.

While the idea is just a hypothesis, the business model describes how a company creates, delivers and captures value. The business model is a unique document perhaps everyone has a unique way of viewing it. Due to these reasons, there has been an increasing need for a uniform template to define and discuss the business model. This template should be equally applicable to new and old businesses alike, across industries.

The BM is analyzed and decomposed considering 9 building block that represents the most relevant aspect in the development of a product or business.

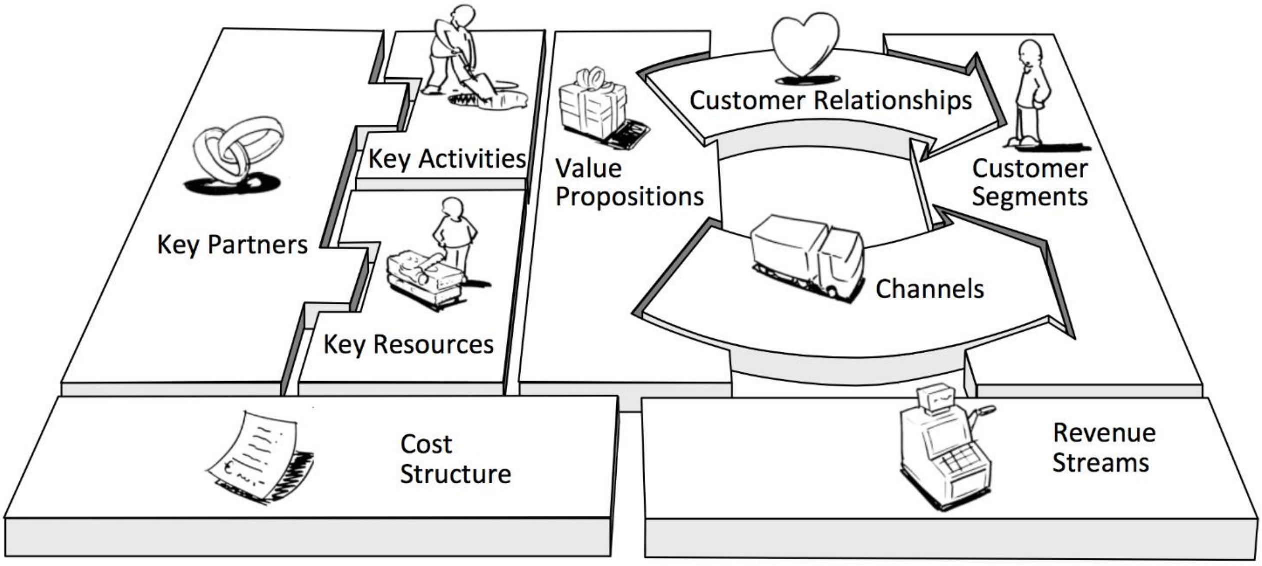


Figure 5 (Business model canvas)

Customer Segment

- Customer can be segmented based on the needs that the company or product are going to satisfy. It is necessary to have a great knowledge of their own customer and their needs, direct (surveys) or indirect (data collection) analysis are fundamental work during the creation of a new company, thanks to this data is possible to determine the possible customer and the features that need more attention.
  The main traditional customer segment are:

- Mass Market
- Segmented Market
- Niche Market
- Diversified Market
- Multi-sided Platform /market
- Community Marke

Value Proposition

The value proposition of a company is defined by the product and/or service that is offered to the customer to solve a specific problem.
Osterwalder affirms that the value proposition must be unique and differentiable from the competitor. To define correctly the VP the company should find an answer to the question "which problem you're solving with your product?".

There are many variables influencing the value proposition, these are some of the most common:

- Brand
- Design
- Innovation
- Accessibility
- Price

Channels

Choose the correct channels to let the company get in touch with the interested customer and enable the communication with them, the value proposition is delivered to the customer in this way.
Nowadays there is multitudes of channels and they must be selected considering various factor (number of customers, the investment required, control over them, standardization), every channel has pros and cons, and they're nonexclusive channel:

- Personal selling
- Website
- Social media
- Email
- Retailers
- Agents
- Distributors
- Partner channels

Customer Relationship

The customer relationship block, together with the channels, represents the link between the customer segment and value proposition. Customer acquisition and customer retention are part of this block, there are many ways in which the company can interact with the customer, the most common are:

- Personal assistance
- Self-service
- Automated services
- Communities
- Co-creation

All thee category are non-exclusive between them, is it possible that the same company keep active at the same time or a not different strategy.

Revenue Stream

This block is needed to define how the company can get revenue from the selling of product and/or service.

Pricing and payment method must be discussed here, flexibility about the previous choice is fundamental in this activity, the market and the start-up are in continuous evolution, is not possible to avoid the influence from the external factor. The element to define is the type of cash flow (single or recurring), pricing policy (fixed or dynamic) and how the cash flows are generated:

- Asset selling
- Usage fee
- Subscription
- Rental / leasing
- licensing
- Transaction fee
- Promotion

Key Resources

The key resources are the most relevant company assets, they define how the value is generated, is it possible to group them in 4 main categories:

- Human resources
- Financial resources
- Physical Asset
- Intellectual property

The mix of resource in a company define the company itself; a good entrepreneur know which resources are available and on which resources he/she need to invest, to develop the business.

Key Activity

The key activities are the value-creating one, an entrepreneur should define which are the most critical activity for the value generation. Creating an MVP is a good way to define this activity, all the activity necessary for the MVP development, production and sell can be considered the critical key activity.
Every company has different key activities, the most common category are:

- Research & Development
- Production
- Marketing
- Selling and Customer relationship management

Key Partner

To achieve efficiency and risk reduction every company need reliable and qualified partners. Key partner comprehends the network of supplier/partner necessary for the value creation. Is possible to define 3 general types of alliance:

- Strategic alliance
- Joint ventures
- Supplier relationship

The relationship with the Partner must be cultivated through time.

Cost Structure

In this block, we define the major cost in which the start-up occurs during his execution, this part of BMC is strictly connected with Key Partner, Key activities, and Key resources, these blocks cover the majority of a company cost.
Is it possible to distinguish between Value-driven and Cost-driven company, many of the cost for the company are "standard" cost:

- Fixed cost
- Variable cost
- Economies of scale
- Economies of scope

Agile Methodology

Agile project management is about giving energy, enrich and set all the project group in a condition to generate business value in a fast and safe way, involving the customer and adapting in a continuous way to their need and the external environment.
The agile principles were defined in the Agile manifesto, they represent the common element between the many agile methodologies developed in the last decade. In the next paragraph, we are going to analyze in detail the Agile Principle for project management.

The picture represents the 12 principles of agile. Attention to the customer and to his requirement satisfaction, a flexible and open to innovation approach, high number of iteration and delivery to the customer, daily collaboration between team members, care about teamwork and communication, self-organization of team, continuously improvement and progress measurement based on the product characteristic

Agile Manifesto

Figure 6 (Agile Manifesto)

The Agile Manifesto identifies the 4 principles on which all the Agile method are based:

- **Individuals and interactions** over processes and tools
- **Working software** over comprehensive documentation
- **Customer collaboration** over contract negotiation
- **Responding to change** over following a plan

To avoid misunderstanding, we must clearly say that, given the relevance of the text on the right side, is the left part of the manifesto that defines the Agile

- **Individuals and interactions** over processes and tools:
  The first agile principle says that the working team has the responsibility of applying the best process for every specific project and should not blindly follow the plan, using only standardized instrument and process, as it happens when the projects are similar and with the same characteristic.
  Since the projects are unique and different, the working team must modify the process and sometimes pivot respect the main plan, choosing the most suitable instruments.

- **Working software** over comprehensive documentation:
  The second principle of the agile manifesto, is a reference to the software industry, but the concept can be extended to various nature project, simply by substituting "working software" with " Useful project".
  being agile means lighten the process: it's true that a detailed and formal documentation of a system can describe it very precisely, and allow the team to become expert about it; it is also true that the big amount of documentation can be counterproductive in critical situation, in which few days of delay can be an issue.
  Practically during the project, the team aim to reach many small objectives and only the project completion objectives.
  the process is split in different short cycle, at the beginning of every cycle the team must check what was produced in the previous one and what are the objectives for the next one; at the end the result must be analyzed and based on the result it is possible to decide if the project must continue with another cycle or is the best alternative to shut it down.

- **Customer collaboration** over contract negotiation:
  The relevance of relationship and communication with the project stakeholders to reach an optimal result of the project is a "pillar". The agile methodology says that customer must be actively participant of the project, maintaining relationship and giving

continuous feedback. At the end of every cycle, the customer can and should discuss with the developer about what need to improved and what need to be changed. Keep the relations with the customer open can be dangerous, on one side they can give precious feedback, on the other side they can continue to ask for modification and non-necessary improvement slowing down the process.

- **Responding to change** over following a plan:
  The agile methods are based on the idea that trying to predict the future of a project is a loss of time and energy. Ascertained that the project will deviate from the original planning, due to numerous factor, the agile approach let the team embrace the changes that happen during the project and not plan every small detail.
  The agile manifesto and the principle that he describes doesn't have any specific indication on the agile methodology to use, their objectives is to give a guidelines that can help people to adopt agile and comprehend the fundament of it.

Build-Measure-Learn Feedback Loop

The iteration cycle is based on the Build-Measure-Learn Loop (Osterwalder, lean start-up book), this approach offers a tool that can be used to test whether a vision works or not; it helps the entrepreneurs to transform their business idea into working products, saving time and money since is it possible to test the product and check the economic viability. The systematic approach of the method allows the start-up to apply fast-action and quick thinking.

Even if the name of the loop is Build-Measure-Learn is a good practice to introduce another phase about planning.

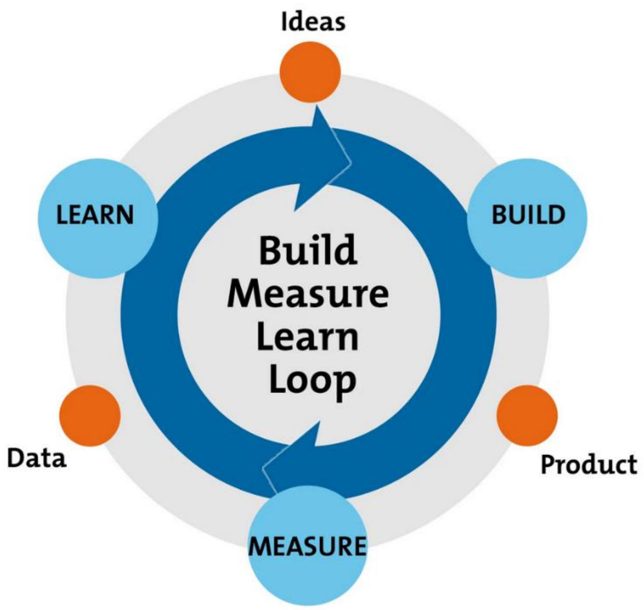


Figure 7 (Buil Measure Learn Loop)

- **Plan:** In this phase the start-up need to define their goal and their strategic objectives, considering possible iteration loop that will happen in the future, is fundamental to plan in order to avoid the risk of become part of the "flow" and lose the control on the business idea, following in a blind way the result of the BML feedback loop. This does not mean a reduction in the freedom of pivoting, but the goal/vision of the company must be clear

- **Build**: develop an MVP, the Minimum Viable Product should focus on the core features of the service product, it shouldn't be perfect or maniacally defined, every new MVP must contain increment from the previous one.
  The MVP must be tested to collect data, there many different approaches for the testing (prototyping with the customer, interview, early adopters sales, etc)

- **Measure:** In this phase the start-up must determine if real progress were made, collecting data from MVP.
  the data need to be analyzed with a critical perspective, what result we expect from the data? Why collecting some data and others? What are the reason for the result obtained?
  In order to get an answer to this question, the data must be organized so they become easily understandable, and the current scenario can be explained. The data presentation is also a relevant part since well-presented data and results grab the attention of another team member, customer, and potential investor.

- **Learn:** In this phase, the start-up has to make a decision: "pivot" or "persevere"?
  The result of this decision must derive from the data gathered during the previous phase and it should be clear that whatever of the 2 choices is not a "gut feel " but a data analysis result.
  After this the start-up could start the loop again, building a new improved MVP

The project versioning lineage

To implement the Build-Measure loop we choose to utilize a Project portfolio method, considering the different aspect of the startup as a different project, and a lineage/versioning system that is easily integrable with the loop.
The first step is to Develop mission, vision, and strategy of the company, involving key personnel;
the strategy is a way to achieve the company vision, guide day-to-day activities towards the long-term vision. The KPI objectivities must be aligned with the company strategy and vision.
The Project delivers a result, it's normal to check the consistency with the specification, assuring that the results are on time and within budget, the analysis of the project result gave the Effectiveness and efficiency of the project.
Define the objectives of the various activity, focusing on the vision of the company, possibly using a quantitative approach and data. Following there is a possible division of activity that represents the different project in the portfolio project management:

- Marketing
- Platform development
  - B2B
  - B2C
- Commercial partner relationship
- Legal Issue
- Content creation

To bridge these two approaches—multi-project management and lineage strategy—we introduce the concept of multi-project lineage management (MPLM) to describe the multi-project
The sequence beginning with a breakthrough project that introduces a new concept of product, and including subsequent projects that which both build on and transform the initial concept. Based on this framework. The goal is to contribute to filling the gap between the strategic necessity for more continuous exploration of disruptive innovations and project rationalization aimed at controlling the golden triangle of new product development.

We see how an innovative product can open new business avenues. Unusual products propose unusual meanings to customers, which in return create new knowledge for a company (in terms of customer acceptance, strategic opportunities, and technological options), thus providing options that top management can choose whether or not to activate. The resulting multi-product sequence stands as a creative product expansion.

GAP Analysis

Organizational competence in a project is the ability of an organization to integrate people, resources, processes, structures, and culture in a project, program, and portfolio.
They can be summarised as differentiated skills, complementary assets and routines providing the basis for a firm's competitive capacity and sustainable advantage.

The Project Excellence Model main purpose is to provide guidance to the organization in assessing the ability of their projects and programs to achieve the projects excellence.
The PEM can be used regardless of the Project Management approach applied to the project, and the tools or technique used.
The PEM is designed to drive continuous improvement effort, regardless of the starting condition of the project and the outcome achieved.
The model serves as a standard and offers guidelines regardless of the size, maturity, and context of the project.
Is divided into 3 different areas, that can be sub-divided in criteria:

Figure 8 (PEM Guidelines)

1) **People & Purpose:** Is considered the **foundation** of the project excellence; The right people and the right leader, all sharing the same company vision are crucial to lead the project beyond the established standard.
    A1. Leadership & Value
    A2. Objectives & Strategies
    A3. Project team, partners & suppliers

2) **Process & Resources:** This area represents the practice necessary to reinforce project excellence. It is the basis that secures the innovation and it's outcome, becoming the starting point for the future wave of improvements.
    B1. Project management process & resources

B2. Management of other key process & resources

3) **Project Result:** the project management approach must be measured, and it must give outstanding and sustainable result for all the stakeholder, to be defined as excellent. This area gives the **proof** of excellence

    C1. Customer satisfaction

    C2. Project team satisfaction

    C3. Other stakeholder satisfaction

    C4. Project result

The Criteria defined in the different area are used to rate the project giving a semi-quantitative approach to the method; every criteria has many sub-criteria defined in the IPMA PEB book, they must be used to express a correct judgment on the project.

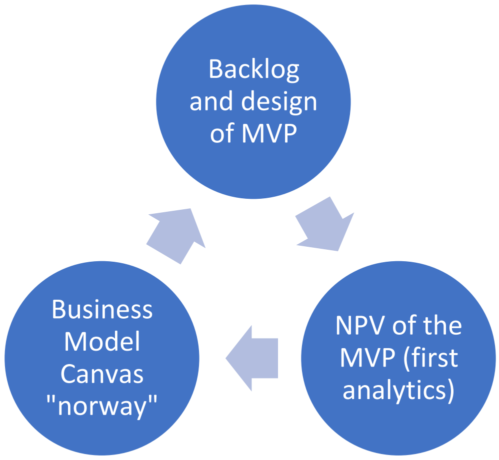
The 3 areas have a strong connection between each other and they're mutual dependant, none of the areas should be considered alone as an outstanding part, the interconnection between them is always changing and evolving with the progression of the project.

4 Implementation

Definition and tracking of the project metrics

Define the PPM system for the MVP of OverAlp (using the Business Model Canvas) → B2C packages for the Norwegian tourist

- We will directly follow the marketing and platform development part
- Other activities on Kanban board
- Definition of the velocity metrics (story point assigned to the activity)



Value proposition canvas

The first step was to define the Value Proposition canvas. To do it we organized a brainstorming session with all the team member.

To define the canvas, we decide to utilize a real case scenario, starting from a direct request made by a potential customer.
The Customer is representative of the average for the B2B market, is a CRAL association from North of Italy, this club gathers people from the same company and organize a recreational activity for them.

We begin by filling the part of the canvas regarding the Customer:

- **WANTS** (emotional requirements): The customer main requirement is to live an **outdoor experience**; this experience must be performed in a **safe environment** and the technical level should **fit the experience** and physical training of the participant

- **FEARS** (risk of switching to our product): The customer is worried about the **technical difficulties** of the activity, the **lack of participation** from the subscriber and the **logistic problem** about the organization of all the activity regarding the experience

- **NEEDS** (rational requirement): The customer request a **calendar** with **scheduled outdoor activity** for 2 months

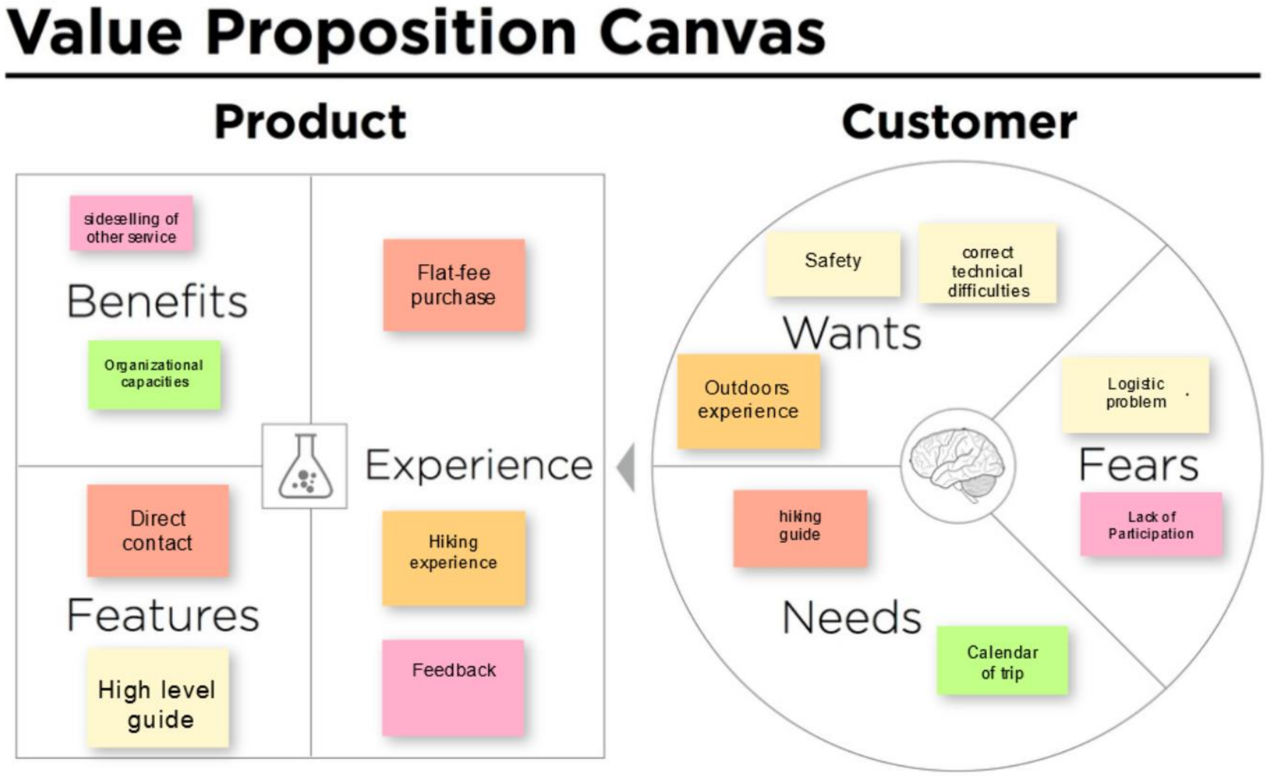


Figure 9 (Value proposition canvas)

Using the data from the customer we defined the Product:

- **BENEFITS:** With OverAlp the safety of the experience is granted by the guide; the customer is relieved of the logistic problem about "guide reservation"**,**
- **FEATURES:** All the guide of the OverAlp entourage are registered to the national association, and covered by insurance. The customer receives a custom made "experience package", it has the possibility to expand the experience with some side selling (Accommodation, equipment rent, Food….)

- **EXPERIENCE:** On the website is possible to check which activities are available, the customer can send the request and it will be contacted to define the contract. After the end of the experience, the customer has to leave feedback through the website.

The definition of the Value proposition Canvas helps the start-up to understand which are the core value of the company and the strategy.

Business Model Canvas

After having defined the value proposition canvas, is possible to create a Business Model canvas starting from the previous data collected

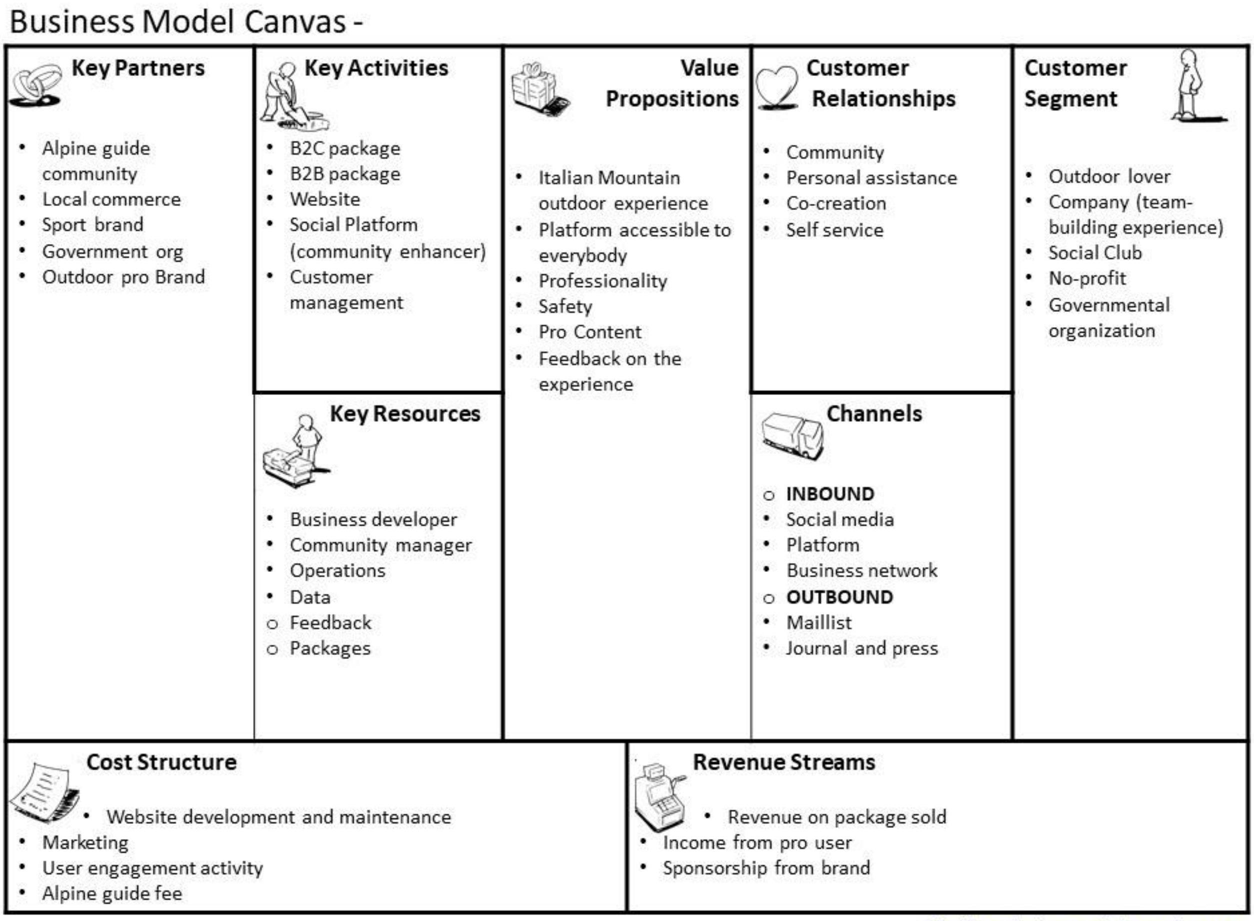


Figure 10 (OverAlp Business Model Canvas)

Value Proposition

The main Value offered to the customer is the possibility to participate in Outdoor experience in the Italian Alps.
The experience is organized by the Start-Up, the customer has only to make a purpose about the experience or select one of the offers available on the website.
Many additional features help to improve the value offered: the professionality and safety deriving from the Official Alpine Guide, the easy access to all the info about the experience on the website, the solution of the logistic problem regarding the reservation.

Key Activities

Based on the value proposition our key activities regard the organization of the “package” of outdoor experience for the B2B market, these are the main activity to perform in the MVP:
Managing the relationship with the guide and define a database of activity and guide.
Promote the website on social and during the outdoor event to increase visibility.
Create a custom experience for the customer and manage the commercial relationship.
Enhance the creation of a community of the customer, offering community service on the website.

Key Partners

The key partner that we can define in this version are many:
The alpine guide community is from where we can find the people that will lead the experience, having a strong relationship with them is fundamental.
The Sport/outdoor equipment brands are interested partners since we offer them the possibility to reach the potential customer for selling or renting their material and empower their brand.
Is possible to collaborate with the local commercial activity, and offer as side-selling services like Hotel and Restaurant booking.
The governmental organization can cover 2 roles as Key partners and customer; as a partner, we should consider that in Italy many places are a national reserve and sometimes, entry fee or permits are required.

Key Resources

The key resources in OverAlp are Human resources and data.

The key HR's are the head of Operation, the Business developer and the manager of the Alpine guide community (that it is also an alpine guide).

Regarding the data, initially, there will be only the descriptive data about the experience created by the team and part of the alpine guide, with the running of operations different "package" will be created and added.

The feedback system for the experience and the guide will become fundamental as an instrument to validate the customer satisfaction and to attract a new customer.

Customer Relationship

The customer relationship is community-based, the customers are "push" to explore the experience offered and leave feedback about the past experience.

There are also elements of personal assistance, the last detail of the contract between OverAlp and the customer are defined through human interaction (mail, call, chat, skype) and there is available support.

Together with the personal-assistance, there is also an element of Co-creation when the user request for a custom made experience, it interacts with OverAlp to create a custom made plan.

When the product will be available for the B2C there will be a switch towards automated services.

Channels

We can subdivide the internet channel in Inbound and Outbound channel:

- Outbound: these are channels in which we "push" the content, during the last few years these channels are becoming less powerful due to overcrowding, still is not suggested to completely leave this channel, so there will be advertising and communication trough Mailing-list and advertisement on the periodic journal
- Inbound: These channels are permission-based, this means that the user reached in this way have an interest in what we are doing and they're more inclined to get in touch

with us. Can be considered part of this channel Social media marketing, free content diffusion and subscribed Mail-List.

Another part of the channel is offline and is made by the commercial network with all the possible partner and the previous customer.

Customer Segment

The MVP is working for the B2B market. The customers' segment that are taken as target includes the No-Profit organization, Recreational social club, Company (for Team-Building activity).
Regarding the future release of the B2C version, the market becomes a niche market targeting Outdoor lovers.

Revenue Stream

The revenue stream is based on the income from the experience offered to the customer, OverAlp will take a percentage of the selling price as a service fee. Other revenues come from collaboration with a partner (outdoor equipment brand, hospitality, restaurant...)
After the reach of a critical mass of content and user, it will be possible to differentiate between premium and free user, by offering a subscription plan.

Cost Structure

The main fixed cost is the development of the website and its maintenance.
The other main variable cost regard: the marketing operations, that include also the user engagement cost; the employee wages and the Alpine guide fee on the experience.

Kanban Board (week 1)

With the Business Model Canvas about the MVP defined we can start to create a backlog for the Kanban board.

It was chosen the Kanban technique over a Scrum method, using Kanban is more “light” under many aspects;

it’s easier to keep the team update since the different member are not in the same city most of the time and the Scrum meeting will become hard to manage using videoconference instrument every day, we should also consider that the team members are not used to follow PM practice and the SCRUM methodology could result difficult to implement.

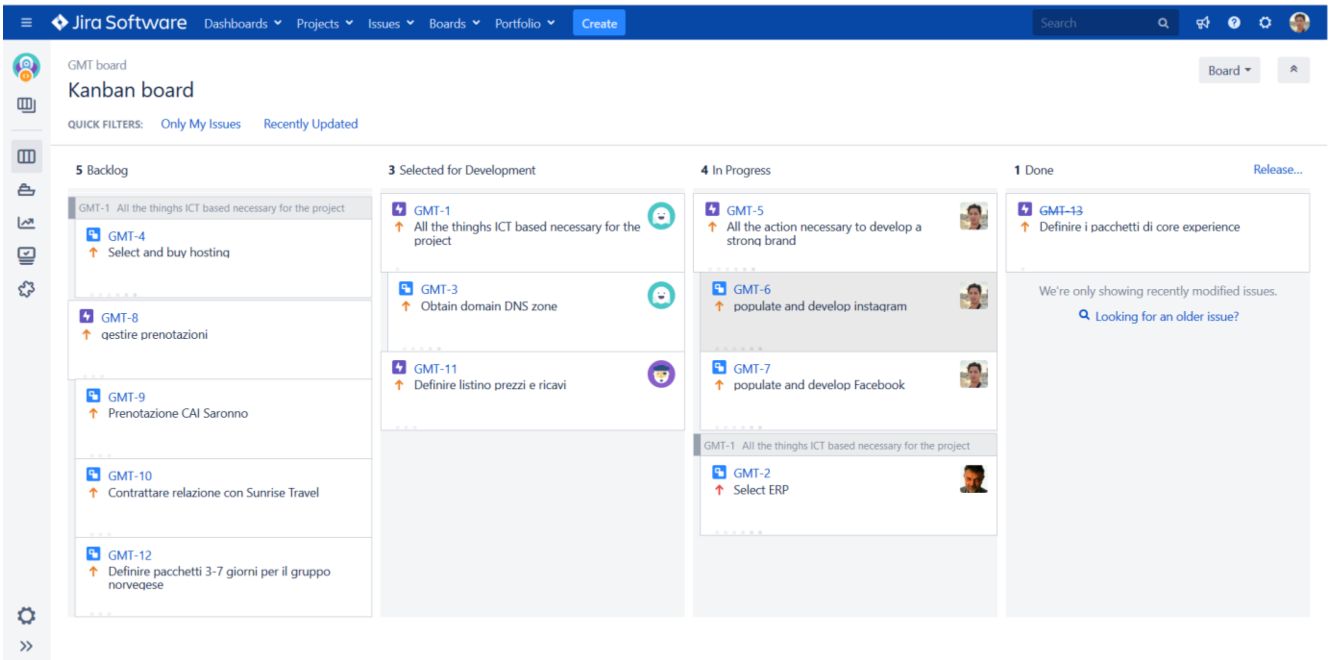


Figure 11 (Jira Kanban Board)

The Create the Kanban Board we used an online instrument (JIRA), this instrument is born form manage software development, but it can be used to manage other kinds of project with a little tweak.

Component

The first step to define the composition of the project, the component can be seen as “tag” for the issue since they help to identify which area of the project is about:

- BMC: Value Generating, by using this component we identify all the issue defined in the Business Model Canvas, needed to generate direct value for the start-up

- G&A: General & Administration, this component is connected to the issue regarding the operation of the company
- FNC: Support Function, this component is connected to the issue of customers support and management.

Epic and Sub-Task Definition

The Epics are the main task to be done in the project, every Epic need an assignee and is associated at least to one component. The owner of the epic is not the only team member that is going to work on it but is considered accountable.

The sub-tasks are part of the epic, they're small work unit feasible by a single person, is necessary to define for every task priority, owner and component.

These are the epic defined during week 1:

- ICT development: this Epic contains all the issue related to the IT (Website and Database development).
- Reservation Management: since there are active requests from customers, these requests must be managed and fulfilled.
- Marketing action: all task related to the marketing and brand development are under this epic, also the free content creation is considered part of this epic
- Define price and packages: this epic contains the sub-task regarding the creation of content for the website and packages to propose to the client while the website is offline.

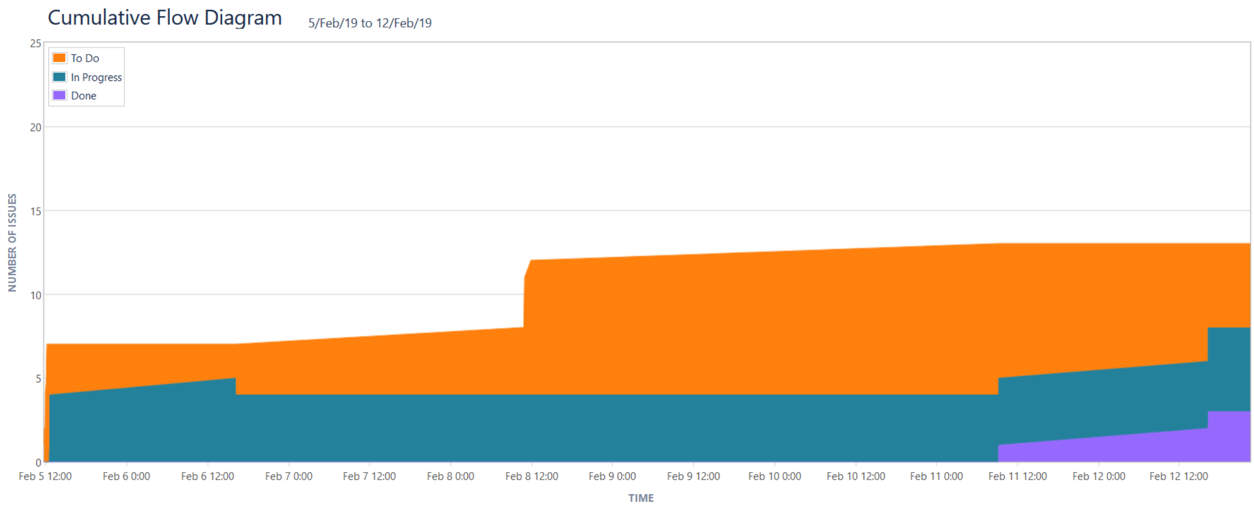


Table 1 - cumulative flow diagram week 1

Week 2

During week 2, there was a Meeting between the founder of the start-up.
Part of the meeting was dedicated to the discussion of operational activities (Management of opening event, refinement of the Website, bureaucratic registration of the company).

An argument of discussion was the future development of the company and his business Model.
As previously defined the plan is to create a platform to offer the outdoor experience to a private customer; one of the relevant differences between the B2B and B2C market is the support offered to the customer, offering customized support with human interaction to every user is economically impossible. The first user version of OverAlp will contain more experience packages and they will be more detailed, respect to the actual version (b2b).
With this new element, the model is less customer-centric and more like a traditional shop.
The IT system can help us to keep a customer-centric BM.
The creation of a database with all the previous experience and the related feedback is a helpful tool for the customer to choose or find what he's searching for without the need for support.
One of the next Epic to introduce is the Definition of the Database structure (Alpine Guide, Customer, experience)

Direct experience

During the second week of collaboration, I had the opportunity to participate (as a guide-assistant) in a snowshoeing activity organized for the employee of a company that counts more 7000 workers all around the world, the activity was an easy walking of about 80 minutes around the natural reserve of "Bielmonte".
I spend all day with the guide, in order to analyze the process and find the possible critical element present in this kind of experience.
The registered participant for the activity was 120 people, most of them (75%) choose to reach the mountain using a company bus starting from the city. The requirement for the amount of

person attending the event was to have at least 3 official guides (the ratio participant: Guide must be too inferior to 25: 1)

To properly manage 120 the day was organized in this way: 2 round of snowshoeing with 3 different groups starting every 15 minutes.

In the registration form was asked to the participant if they have the proper equipment or they need to rent pole and snowshoes, almost all the participant doesn't have their snowshoes, so 60 pair of them were rented for the occasion.

This was the timetable communicated to the participant of the activity.

9.00	Meeting at the starting point for the first-round participant
9.30/9.45/10	The departure of the first-round groups
10.45	Meeting at the starting point for the second-round participant
11.15/11.30/11.45	The departure of the second-round groups

The timetables for the guides were like the customer one, the only difference was the first meeting time not at 9.00 but at 8.15, so it was possible to check the walking path and prepare the equipment with the rental center.

During the experience emerged some organizational issue, I will analyze singularly all of them:

- Nonattendance → On the 120 expected people on 89 showed up (25% of Nonattendance ratio)
  The participant was invited by the employer company and we received the list of them containing personal data, e-mail, and necessity of renting snowshoes.
  90% of the non-participant people, communicate their renounce to their company reference, but we didn't receive any notification.
- Wrong equipment → Many participants showed up with wrong equipment (city shoes or sneakers, jeans, no walking pole), this was due to:
  - a misunderstanding between the rental and the company, they require 60 pairs of snowshoes, and the poles were not included in the renting package;

- a lack of communication with the participant that didn't receive specific instruction on the necessary equipment for the day.

- Schedule delay → during the day there was an accumulated delay of the activity of around 30 minutes due to the waiting for the missing person.

After this experience, the need for a website/APP is becoming clearer.

This will allow managing directly the experience, the participant could use it to:

- Receive message about the necessary equipment
- Have an updated timetable easily accessible by phone
- Check the hiking track
- Have data about the guide and how to contact them
- Receive information about the location

The development of this application will help working with the private customer, doing this OverAlp become the creator and manager of the experience and not anymore, an intermediary. The purpose of creating an APP/website will be part of the next meeting.

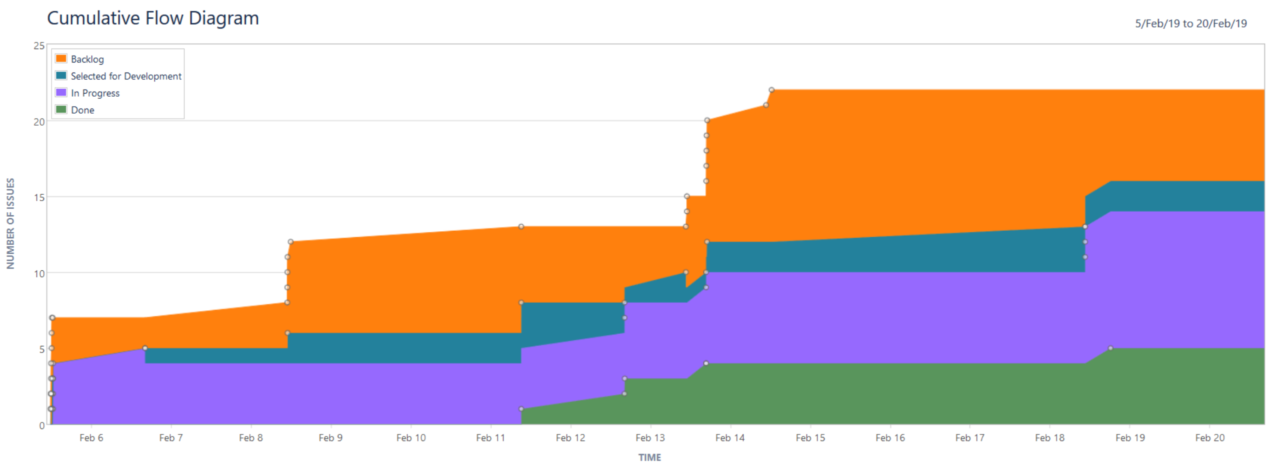


Table 2 - cumulative flow diagram week 2

Week 3

During week 3, the start-up comes up with his first product sell, even if the website was not online, a local association from Milan ask for a package of 2 days hiking in the Lombardy region. After a short negotiating, the customer agree to purchase a package including 2 separate days of hiking around the lake with 2 guides.
From this first selling some detail can be used to improve the product for the future:

- Management of transportation: this time the customer had the possibility to arrange the movement of the people with an external partner, but they still ask us which price we could have purpose them including the transportation (Bus for around 40 people) → a new subtask regarding the start of collaboration with a transportation company is created.
- Guide characteristic: the customer requires for a guide with specific characteristic and experience, due to the restricted number of customers it was easy to find the right one → this request create a new parameter to add in the guide database {children friendly};
- Payment method: The customer asks if it was possible to pay directly the guide during the experience day, this was one of the bargaining argument since the payment needs to be collected by the start-up at the moment of the reservation. → Choose the online payment method and define policy about cancellation is now a subtask.

Closing the first deal means that there is an MVP, so it's possible to make of Gap analysis of the project until this moment. The GAP analysis is made following the guideline given by the "Project Excellence Model" book of IPMA

Partner Meeting: Sts Group

During the week there was a meeting with ASD (amatorial sports association) named "STS Bike" the aim of the meeting was to create a commercial partnership, to fulfill the gap in the Bike experience market.

STS bike is composed of 3 partners, all of them are certified with the "AMI BIKE GUIDE" certificate.
Their company mission is to drive tourist through the various mountain-bike path of the Piedmont region. They have 8 high end, Off-road, E-bike available for rental and their working zone cover all the region.
Right now they don't offer any package directly to the tourist but they work for a private natural reserve that provides them, customer group. Due to the "sport" origin of the association, they can't legally organize and offer a package with accommodation.

What do they offer to us?

- Technical competence
- Independence in the equipment procurement (they rent the bike to the customer)
- Package for bike experience all around piedmont of different duration (1-3 days) and difficulties

What we can offer to them

- Visibility on our website, through a description of their activity and their association
- The complete package for the tourist, they are responsible for the biking organization, we take care of finding the accommodation and provide the right services to the customers
- Online payment, the customers can reserve the experience on the Overalp platform and the STS bike will receive a bank transfer.
- The fee required from Overalp is only 10% on the standard price so, the STS group will receive the 90% of their standard price
- Customer insurance on the trip

After the meeting, the STS group resulted interested in building up a relationship with us, and they made the commitment to send us in the next week some file with the information about a possible tour.

After the meeting, some new Issue becomes clear or get more relevance:
The choice of the payment method is now a critical argument, and the timing must be taken into consideration.

Is necessary to get in touch with a RC company so it will be possible to offer insurance to the customer

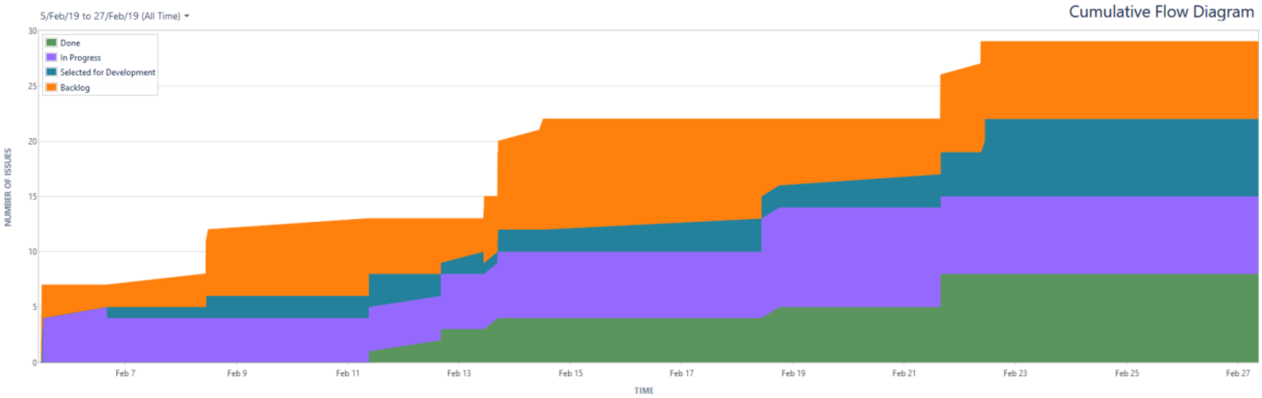


Table 3 - cumulative flow diagram week 3

Week 4

The Week 4 started with a team meeting, the objectives of this meeting were to finalize and clarify the website requirement, in order to go online with it for the planned launch date 8 of March.
From the technical side there was the relevant choice to migrate the website from WordPress to Shopify; this platform has a more appealing design, it's easier to modify and allow to integrate the website with the ERP system of OverAlp, so once that the data about new experience, guide are inserted on the company database they're also available online.
It was also chosen to outsource all the web-maintenance work using Amazon Web Service. This chooses, even if they led to a small loose of control and flexibility on the website, left the team with more time available to focus on the core activity.

It was chosen that the website will be available from the first day in 5 different languages (Italian, English, French, Spanish, German), due to this choice the review of site content in term of activity description and company creation, become an urgent issue on the Kanban board.

Partner Meeting: Oasi Zegna

One of the main partners of the company Equipe Arc-en-Ciel is "Natural reserve Oasi Zegna".

During the meeting OverAlp was introduced to the CEO of Oasi Zegna, that react in a positive way and ask for more information about the project, seeking to continue the partnership with the new company.
Oasi Zegna is the main partner since many organized activity are made over there and part of the guide are also working for the reserve.
on the first part of the meeting the focus was on the analysis of the past performance in term of activity participant and proposed activity, the last year more than 6000 people participate to over 150 different activities. Even during this winter season that is not favorable from the weather the activity purposed for the company result always full.
After the review there was a discussion about the customer origin, around 70% of the customer for the experience at Oasi Zegna come from 2-3 company (the company promote the activity using their own intranet network), this dependence from other company can be dangerous on the long term, if one the company choose to close the relationship, there will be a big market gap.
OverAlp is a great solution to this problem, aiming to collect more customer from small

company or private customer, allow to relief the weight of the contract with bug corporation that otherwise are the only way to reach a great amount of customer.
As emerged from, the Meeting the vision of OverAlp and Oasi Zegna shares one of the most relevant aspect, both of the company want to help people reconnect with nature and educate them to respect it.
OverAlp will substitute equip Arc-en-Ciel as a partner for the “Oasi Zegna” regarding the organization of outdoor activity.

New Team Member introduction:

Starting from the month of March the OverAlp founder decided to hire a new collaborator for the company, due to the lack of time from all the member that have another main job.
The new component is Isabella Strona and she will be the director of the OverAlp activities; she was a former employee for a travel agency in Biella, her knowledge field cover all the area necessary to offer a complete package to the customer.
She will also bring contact and networking with collateral service provider useful to complete the OverAlp packages, such as a private transportation company, hotel, and restaurant.
Thanks to her experience in the touristic field she will help to create and manage the online flow for the reservation process.

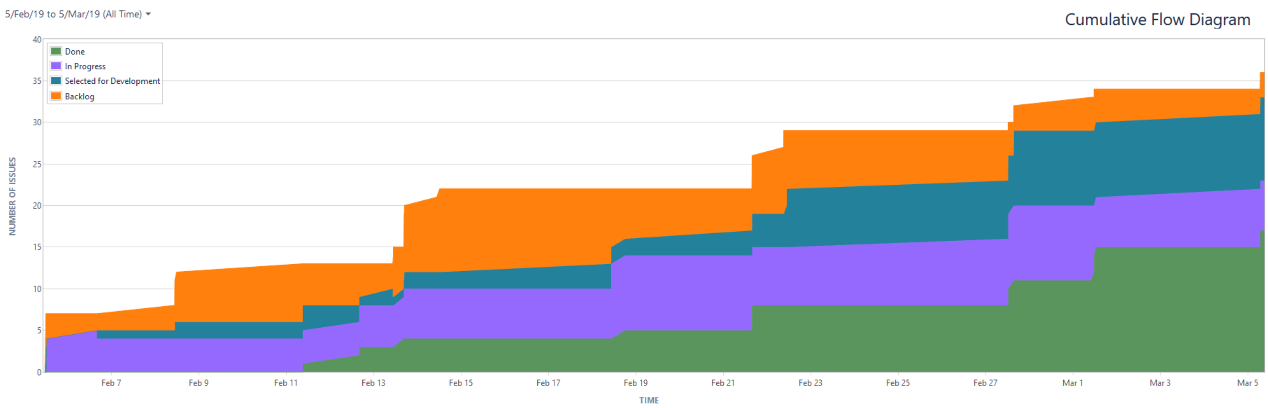


Table 4 - cumulative flow diagram week 4

5 Analysis of the result

PM implementation (JIRA):

The team was able to work in an agile environment, the Kanban system implemented through Atlassian Jira was adopted by everybody and they start using it and recognize it's relevance as a project management tool. Thanks to the report analysis offered from the tool it was possible to extract data about the velocity of the start-up. Two small bias were given by the fact that during the definition of the epic and sub-task there was no consideration of the workload related to the defined activity (some activity are way more work intensive respect to other); the other bias is due to the time of data entry of the task on Jira, some task result to be resolved few days after their entry on the system, this happens because sometimes the team member wasn't able to upload the work while they were outside the office. Overall implementing the Kanban system gave us quantitative data about the completion of task from which is possible to

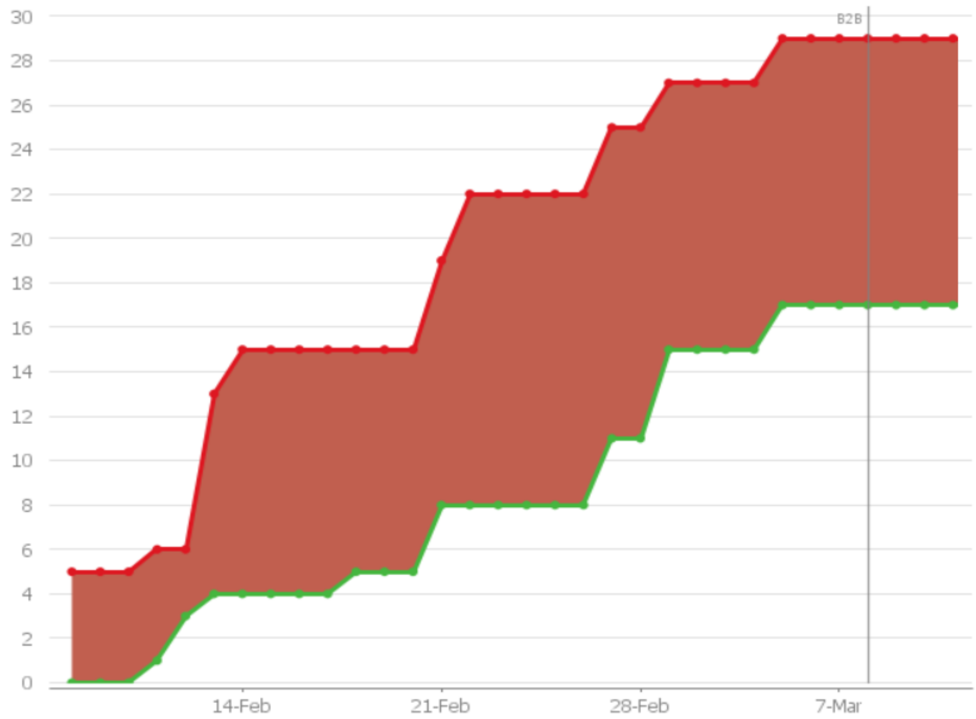


Figure 12 - created vs resolved issue in 35 days

extract different metrics like the "velocity" of task completion. The Qualitative result of the Kanban implantation is reflected in the team behaviour: the members are more time effective and they can focus on their objective having it defined and clearly visible to all the team members.

Lean and Agile methods and principles helped to create a solution that was based on user/customer needs. Both methodologies provided methods that helped to stay flexible on scheduling but strict on controlling in order to improve the results and efficiency.

In the figure 3, we can see the graph resulting from the confrontation of solved Issue (the green line), and created issue (Red line), this graph allows the user to have a visual representation about the amount of work that needs to be done and was done in the past.

The standardization of the spread between the two lines, after the first week of assessment, represent the average workload sustained by the startup; for OverAlp the number of the active issue on which the team can work reaching an adequate efficiency is about 10-12. Having less active issue can lead to laziness and increase too much the workload can decrease productivity due to loss of focus.

Graph 3 shows the average number of days issues were unresolved for on a given day over the past 35 days.

On the last day (10 march) the total amount of accumulated unresolved issue days was 381 days, the amount of issue at that date was 19 issue and the average days of age for an issue is 20 Days, the amount

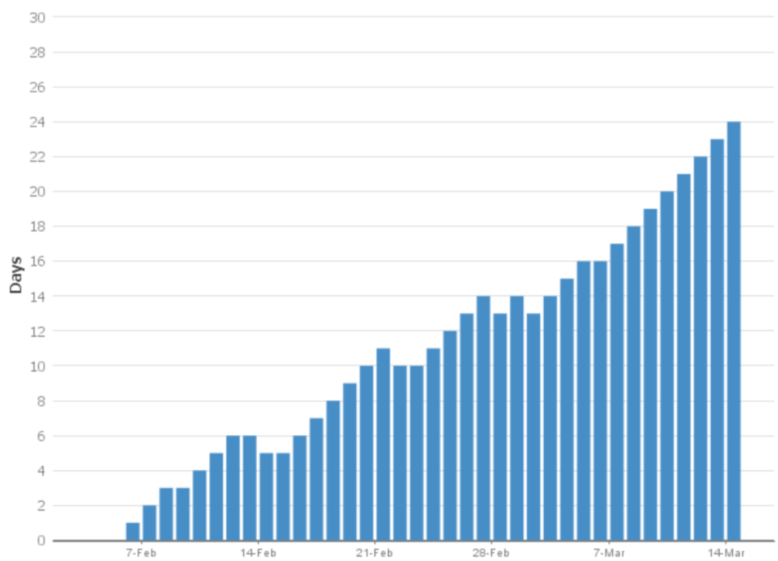
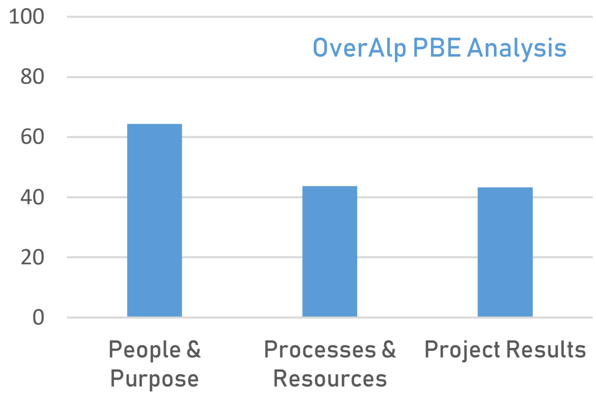


Figure 13 (Average number of day for unresolved issues)

GAP analysis

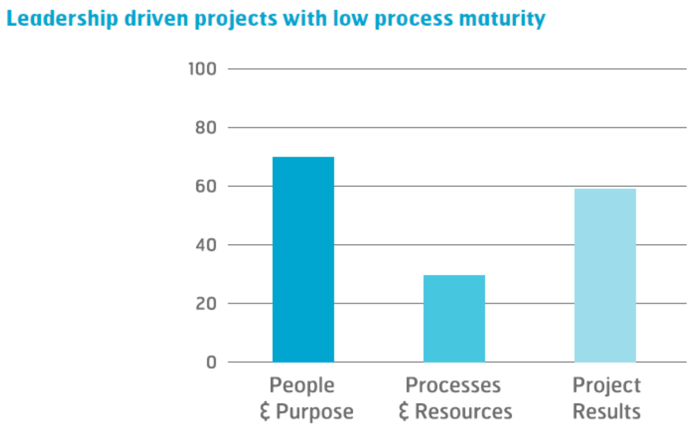


The focus of the GAP analysis using the PEB guideline was to define a picture of the Project management technique usage and implementation, after the first business iteration.

The result of the PEB analysis result complicated to understand, from the data there is clear friction between the result of the project and the planning of it, it's hard to give a numerical value to the result of the project due to the uncertainty nature of the start-up.

on the other side, it was more easy to define the value for the people & purpose and Process & resources module, the result are compelling with the reality, they show that the start-up (during this iteration cycle) is highly people dependent.

Since the product of this first project is "tailored" for the customer, the result regarding customer satisfaction data are optimal, this product is the first MVP developed by the company, so there is no process automation and the customer relationship is a relevant aspect.



The analysis result shows how the company approach is toward "leadership driven project with low process maturity", this outcome is consistent with the nature of the startup, that is a new project highly dependent on Human resources.

6 Conclusion

One of the hardest activity during the first stage of a start-up, and even after, is the definition of the team and the role of every member, in the OverAlp case there was a governance issue, due to the different vision of the Co-founder that were not aligned on the same objectives. It became fundamental to have a clear representation of the company "direction" on the Lean/business canvas, so it is possible to avoid team friction, and the start-up can go straight toward the objective. Having a clear vision make possible to measure the outcome and define some KPI.
The Kanban methodology is a tool that synergizes with the lean Start-up development since it allows the team member to keep track of their activities and give value to them, it helps to obtain a quick launch of the product containing the features with the highest priority and keeping the budget as low as possible. It allows holding total control of the work in progress and flexible control on the budget.

Almost all the Start-up acceleration and incubation (20) program require data about the progression of the work and the growth of the start-up during the period. The Agile methodology allows keeping track of this data.

The process of cultural change was the other main obstacle in the adoption of Agile within the organization, even if all the member were positive about the implementation of the JIRA system, there was issue regarding the timing of data entry, in order to obtain real data, the Kanban Board must be updated almost in real time or at least daily, otherwise the data about productivity and work progression result inaccurate.

Bibliography

1. CB Insights (2015). *The Top 20 Reasons Startups Fail*. Retrieved from https://www.cbinsights.com/research-reports/The-20-Reasons-Startups-Fail.pdf
2. Shane, S. and Venkataraman, S. (2000), "The promise of entrepreneurship as a field of research", Academy of Management Review, Vol. 25 No. 1, pp. 217-226.
3. Kuura, A., Blackburn, R.A. and Lundin, R.A. (2014), "Entrepreneurship and projects – linking segregated communities", Scandinavian Journal of Management, Vol. 30 No. 2, pp. 214-230.
4. Lundin, R.A., Arvidsson, N., Brady, T., Ekstedt, E., Midler, C. and Sydow, J. (2015), Managing and Working in Project Society. Institutional Challenges of Temporary Organizations, Cambridge University Press, Cambridge.
5. Packendorff, J. and Lindgren, M. (2014), "Projectification and its consequences: narrow and broad conceptualizations", South African Journal of Economic & Management Sciences, Vol. 17 No. 1, pp. 7-21.
6. Lundin, R.A. and Söderholm, A. (1995), "A theory of the temporary organization", Scandinavian Journal of Management, Vol. 11 No. 4, pp. 437-455.
7. Ajam, M. (2011), "Entrepreneurship and project management – the missing link", PM World Today, Vol. 13 No. 4.
8. Lindgren, M. and Packendorff, J. (2003), "A project-based view of entrepreneurship: towards action orientation, seriality and collectivity", in Steyaert, C., and Hjorth, D. (Eds), New Movements in Entrepreneurship, Edward Elgar, Cheltenham, PA, pp. 86-102.
9. Lindgren, M. and Packendorff, J. (2011), "On the temporary organizing of entrepreneurial processes: applying a project metaphor to the study of entrepreneurship", Revue de l'Entrepreneuriat, Vol. 10 No. 2, pp. 45-67.
10. Midler, C. and Silberzahn, P. (2008), "Managing robust development process for high-tech startups through multi-project learning: the case of two European start-ups", International Journal of Project Management, Vol. 26 No. 5, pp. 479-486.
11. Ries, Eric. *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. Currency, 2017.
12. Osterwalder, Alexander, and Yves Pigneur. *Business Model Generation a Handbook for Visionaries, Game Changers, and Challengers*. Wiley & Sons, 2013.
13. Augustine S. Managing agile projects. : Prentice Hall PTR; 2005.
14. Beck K, Beedle M, Van Bennekum A, Cockburn A, Cunningham W, Fowler M, et al. Manifesto for agile software development. 2001.
15. Yllén Johansson M. Agile project management in the construction industry: An inquiry of the oppurtunities in construction projects. 2012.
16. Moniruzzaman A, Hossain DSA. Comparative study on agile software development methodologies. arXiv preprint arXiv:1307.33562013.
17. Hunt J. Agile software construction. : Springer; 2006.
18. Cécile Fonrouge, Christophe Bredillet, Charles Fouché, (2018) "Entrepreneurship and projectmanagement relationships: So far so good? Dialogic conversation and Luhmannian perspective",International Journal of

Managing Projects in Business

19. https://www.i3p.it/section/entrare-in-i3p

20. https://www.almacube.com/startup

21. Steven A. Gedeon, Measuring Student Transformation in Entrepreneurship Education Programs ,Education Research International,Volume 2017,

22. Renato Takeki Nishijima, José Gonçalo dos Santos, The challenge of implementing Scrum Agile methodology in a traditional development environment. International Journal of Computers & Technology Volume 5,No. 2, May -June, 2013,ISSN 2277-3061

23. https://www.statista.com/chart/11690/the-top-reasons-startups-fail/

24. https://www.cbinsights.com/research/startup-failure-reasons-top

25. Crawford, L. H.,Hobbs, J. B., & Turner, J. R. (2005).Project categorization systems: Aligning capability with strategy for better results.