Lean startup approach for innovative corporate culture

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The purpose of this thesis is to study how the lean startup approach could help companies have a more innovative corporate culture. Companies need to change in order to be able to answer to today's new challenges: changing business environment and increasing competition that create pressure for companies to be more innovative and create new services faster. At the same time, many companies need to be more efficient and reduce their costs.

In this study we have explored how the lean startup approach could answer to those new challenges and find a way how to implement the lean startup approach for organizations like large established companies.

The objective of the thesis is to create a practical way to introduce the lean startup approach for the organizations and to test how it works in real life with a pilot. For this practical way we have created the Lean startup innovation program which aims to help organizations achieve their strategic objectives, share knowledge and create new innovative services or business concepts or renew existing services fast and efficiently. Lean startup innovation program is made based on the lean startup approach and it is organized with the service design process, methods and tools.

The main sources of information in this thesis have been literature, internet sources, open theme interviews with experts and the pilot of the Lean startup innovation program. The most important source has been the Lean startup innovation program pilot and results from it.

The research revealed that the lean startup approach is useful for organizations when they are aiming to make their corporate culture more innovative. Based on the results from the Lean startup innovation program pilot, we can see that the approach helps organizations work in an innovative way. The program itself was found to be an efficient way to introduce the new approach for the organizations and it can be used in various industries and organizations in the future. The pilot company saw that the approach was very useful and they were interested in continuing working with this new way. Efficiency of the program naturally depends on how ready the organization is for the new methods and how committed it is to changes.

Keywords: corporate culture, innovations, lean startup approach, service design

Contents

1   Introduction

Today's changing business environment and increasing competition create pressure for companies to be more innovative and create new services faster. Customers' needs are changing rapidly and customers are expecting more. That increases companies' challenges with new service development. At the same time, many companies need to be more efficient and save their costs. Changes in working environments bring challenges but in addition opportunities for companies. We believe that in the future, companies are moving towards a culture of innovation, and the startup culture and intrapreneurship are showing a growing direction.

The development of new services or products requires agile methods or new perspectives in business management. The lean startup model created by Eric Ries is based on lean management philosophy, but it approaches the subject from the perspective of the innovation process. Ries defines that the lean startup process is a combination of iterative agile methods, customer development methodologies and lean manufacturing practises in a framework of developing products and businesses quickly and efficiently. (Croll & Benjamin 2013, xxii.) According to Blank (2013), lean brings the value of work and provides the tools that will help increase the competitiveness and profitability. He continues that lean startups are very fast and flexible. They develop products and services with their customers. Despite the name lean startup, the biggest payoffs may be gained by the large companies that embrace the methodology in the long term. (Blank 2013.)

Cooper & Vlaskovits (2013, 24-25) also see that in order to succeed, grow and thrive companies need to focus on customers regardless of the company's size or the industry in which it acts. According to their research, they have noticed that the principles of lean startup are not new, and similar elements can be found in design thinking, for example, user experience (UX) design and discovery-driven planning. (Cooper et al. 2013, 24-25.)

Kansikas (2007, 63-64) points out that in the service sector the majority of companies favour intrapreneurship in their organizations. The customers and the employers are hoping that the products and services are constantly being developed and employees can solve customers´ problem in innovative ways. (Kansikas 2007, 63-64.)

Also an attitude of working and intrapreneurship are emphasized in the future. Intrapreneurship is about bringing entrepreneurial behaviour into an organization. It can take place at any level within the organization. Robinson (2001, 95-96) states that intrapreneurship can improve the organization's financial and market performance by creating additional shareholder value. It can develop profitable new businesses, identify process

innovations or uncover innovative new products. Intrapreneurs add a further dimension by creating knowledge and developing new competencies that help to create a sustainable competitive advantage. (Robinson 2001, 95-96.)

Finnish companies are also encouraged to use design more widely and its status as part of the innovation system is more stable. In many European countries, design is considered to be a part of a successful innovation. Design thinking will also benefit the analysis of big data and data visualization. (Lehtonen & Lehto 2014, 26-27.)

Koria (2014,175) rightly points out that design thinking and user-orientation need to be seen as an integral part of the organizations´ innovation activities because service design and user-perspective can deepen understanding of the needs, and enable to provide meaningful solutions. In the international business area, design thinking can be used to create added value. For example, using design more than the average is to e.g. build the brand in their communication. (Koria 2014, 175.)

1.1   Objective for the thesis

The purpose of the thesis is to study how the lean startup approach could help companies have a more innovative corporate culture. For that we have created a practical way, the Lean startup innovation program. With the program we introduce the lean startup approach for companies and organizations. The program aims to help organizations to achieve their strategic objectives, share knowledge and create new innovative services or business concepts or renew existing services fast and efficiently. With this program, we would like to encourage employees to be more innovative and give space for their ideas to grow into real products and services. At the end of the day we are aiming to change the corporate culture to be more innovative with the program and the program would be one way to influence that.

This study will present a comprehensive plan for an internal Lean startup innovation program, a small pilot in our case company Nets and the results from it. The study is limited to the Nets Merchant solutions Business unit.

1.2   Structure of the thesis

This thesis consists of a theoretical and empirical part. Main topics for the theoretical framework in this thesis are lean startup approach, innovative corporate culture and service design. The thesis is based on research-oriented development, which aims to reform the culture of an organization and its current practices.

First we introduce the theory of innovative corporate culture and what does the innovation means. Then we explore the basics of lean startup approach. Empirical chapter introduces experts' experiences and visions about the topics and it is made with open theme interviews. In chapter five we introduce the Lean startup innovation program what we have created then we go through the pilot program and its results. Conclusions are presented in the last chapter.

2   Innovative corporate culture

Many companies say that they are innovative, without practical or concrete action. Innovations need the management's support and the right kind of atmosphere in an organization to succeed. These enable the free movement of ideas and creativity. The development of a product or service should involve the users or customers from the beginning. An introverted organization does not reach the customers if it does not understand their needs. (Vehkaperä, Pirilä & Roivas 2013, 51).

Pendolin & Kari (2013, 18) write that value and profitability of the business are generated today no longer by mere technology and for that reason it needed something else. They continue that user-driven innovation and user-driven development can be seen as a new source of value creation. In terms of user-driven development, the great significance is how to provide the largest possible value of utilizing the available resources and how to get produced something that produces value to customers. An innovative product or service is something that customers often cannot even imagine a need for. (Pendolin et al. 2013, 18.)

According to Ojasalo, Moilanen & Ritalahti (2009, 12-13), rapid changes in operational environments have brought new challenges and opportunities for businesses and communities. Keeping in touch requires agility of the organization and the members, and continuous renewal. These factors have a central impact on the company's success, so the requirement for innovation is steadily increasing. (Ojasalo et al. 2009, 12-13.) Heinonen & Vento-Vierikko (2002, 120) point out that the positive behaviour of management, organizational structure, procedures, and organizational culture contribute to innovative behaviour. According to them, together they support the information and knowledge transfer and accumulation.

Innovative corporate culture consists of many things and operations. Foresight is a part of innovation and innovative corporate culture. According to Ojasalo et al. (2009, 80-81), the task of foresight is to look at, for example, the business' future in a systematic and long-term way, and try to identify the strategic research and development areas, which consist of the largest financial, organizational, and societal benefits. Foresight has a clear confluence to the generation of innovations, and it helps us understand and describe different threats and opportunities around us. Its aim is to find out what is possible and desirable, what should be avoided or assumed in the future of the business. (Ojasalo et al. 2009, 80-81.)

2.1   Innovations

The several definitions of innovation in literature conclude that innovation is not just an idea or invention. Innovation is often perceived as something new, original, or improved and

something that creates value for the organization and customers. Ojasalo et al. (2014, 83) point out that the new idea, invention or research result does not in itself form an innovation. The idea needs implementation and commercialization of a product or a new system. Innovation can be also seen as a way of thinking, leading and action. The core of innovation is the ability to see things from new perspectives and ways of thinking. (Ojasalo et al. 2014, 83.)

Ojasalo et al. (2009, 75; 2014, 86) describe that the key stages of the innovation processes include the following steps:

1. Data collection and analysis
2. Production and searching of ideas
3. Evaluation and selection of ideas for further processing
4. Concept, creation of preliminary solution and further development
5. Commercialization and implementation (Ojasalo et al. 2009, 75; 2014, 86.)

According to Vehkaperä et al. (2013, 23), innovation is a product or business model that has been introduced and is useful. A good idea is only an invention that may have the potential for innovation. They continue that in order for an invention to be called an innovation, it needs capacity required for the implementation that enables the product or service model to be introduced. The term implementation refers to the implementation process of product and services, commercialization and marketing. (Vehkaperä et al. 2013, 23.)

Systematic innovation begins with the analysis of the opportunities. The second imperative of innovation is therefore to go out to meet the customer and see what the expectations, values and needs are. (Drucker 2007, 122-123.) Organizations often try to find new products for existing customers or provide existing products for new customers. According to Vehkaperä et al. (2013, 30), significant innovations and business ideas are born when there will be new customers for new products.

Vehkaperä et al. (2013, 47) point out that the activity of innovation should be continuous, consistent and systematic. Reform and development can sometimes feel more like a burden than as belonging to the basic tasks of work. Ojasalo et al. (2014, 87) write that organizations need enthusiastic people to take the innovation process forward. The innovation process involves many things, like the right kind of co-operation, marketing, maintenance, etc. Innovation process should also take place among a variety of people from different industries. (Ojasalo et al. 2014, 87.)

Ojasalo et al. (2009, 14) write that customers and users are having an increasingly important role in innovation activities and the aim of development and regeneration is to produce benefits for both the customer and the service provider. Chesbrough (2011, 57-58) states that instead of treating customers as passive consumers, companies can involve customers in their innovation process. In many cases, customers are co-creating new products and services. Companies can focus on customers to create a visualization of the customer's experience. One way to think about the service is to identify its experience points: the moments when a client comes into direct contact with the service. In services, customers' perceptions of their experiences are as important as the design and delivery of the service. Experience points are opportunities to help frame their expectations of what they will experience. Customers' satisfaction with the service will be determined by a combination of what is delivered and how that compares to what they expected to receive. (Chesbrough 2011, 57-58.)

Michel & Gallan (2008) see that any innovation should take place at service logic point of view, regardless of whether is it a made or an intangible product or service. All innovation activities need to change the customer approach, participation and capabilities to create and understand the value. The service logic perspective is based on the understanding that the innovation of new products will enable customers to new service production. People are not looking for new products, and they are looking for satisfaction. (Michel et al. 2008.)

Vehkaperä et al. (2013, 11) write that innovation activities should be based on a pragmatic, open and comprehensive thinking and clever individuals and communities. Competence requires networking and new operating environments, habits, and equipment management. Data need to move quickly and smoothly to remain competitive between individuals, companies and organizations. Vehkaperä et al. (2013, 30) also describe that innovation can be divided into different types which are product and service, technological, design, marketing, distribution, process and cultural, strategy and social innovation. According to Ojasalo et al. (2014, 13-14), social innovation includes the ways to act differently than usually, new practices and a matter of routines. In a social innovation, the softer things like the renewal of organization and business plan rise to the first. In service innovation, the customer is playing a crucial role and the target is the production of benefit for the customers and providers who are seeking development and renewal.

The most common type of service innovation might be service improvements. That means that changes in features of services that are already offered might involve faster execution of an existing service process. Style changes are usually very visible, and those can have significant effects on customer perceptions, emotions and attitudes. Style changes can be changing the colour scheme of the restaurant or redesigning a website, and these innovations do not fundamentally change the service but only its appearance. (Zeithaml & Gremler 2006,

256.) According to Ulwick (2006, 2), service innovation means improvements for existing products. New market innovation means that the company creates a new market by creating a product or service which has not existed before. Operational innovation means that the company improves its internal processes to be more efficient with innovative solutions. Disruptive innovation means that a company uses a new technology to disrupt the prevailing business model in the existing market that is filled with over-served customers. (Ulwick 2006, 256.)

2.2   Open innovation

Open innovation together with the lean startup approach could be very efficient for large established companies to become faster. What open innovation means is that the company has shifted from so-called closed innovation processes towards a more open way of innovating. Chesbrough (2011, 24) describes that open Innovation is combining internal and external ideas as well as internal and external paths to the market. We believe that in that way also the build-measure-learn feedback loop would be much shorter and easier to adopt in open innovation environment.

According to Lindegaard (2011, 11), open innovation is to utilize internal and external resources and to activate those opportunities. It should take place in the whole innovation process, not only in the early stages of the front-end of innovation. Open innovation arises from the need to create value networks, which include potentially external sources that can support innovation. Heinonen et al. (2002, 110-111) write that the stakeholder relations can be seen in most important learning environments. It is important to learn from a range of stakeholders: customers, suppliers, support organizations, public authorities, banks and other experts, as well as competitors, colleagues, staff, family, other entrepreneurs and leaders. (Lindegaard 2011, 11; Heinonen et al. 2002, 110-111.)

Chesbrough (2011, 23) points out that innovating in today's environment requires companies to be open. That can also help turn a business into a platform for others to build on. Open innovation can reduce the cost of innovation, help to share the risks and rewards of innovation, and accelerate the time required to deliver innovations to the market. (Chesbrough 2011, 23.) Nyström et al. (2011, 19) write that open innovation companies should consider the external environment systematically to find the information and know-how to integrate them in their own activities. At the end of the day that may bring questions related to the rights of the product's ownership. In our opinion that is one reason why some companies are not ready for change towards open innovation.

Chesbrough (2011, 17) makes clear that many of the existing innovation approaches and business models focus on manufacturing-based thinking. He mentions four concepts and practices which are critical to enable innovation and growth. First thing is thinking of business as a service in order to sustain profitability and achieve new growth. Second point is that innovators must co-create with customers to create more meaningful experiences for customers, who will get more of what they want. Thirdly, open Innovation accelerates and deepens service innovation and growth by promoting specialization within the customers, suppliers, makers and other third parties surrounding the business which results in more choices and variety for customers. Fourth is that effective service innovations require new business models that profit from internal innovation initiatives and stimulate external innovation activities that add to the value of their own business. (Chesbrough 2011, 17.)

According to Chesbrough (2011, 19), together these principles create a framework for innovation that will allow businesses to grow and compete in services. One aspect to promote innovation in services is to change the role of customers in the innovation process. Many companies involve customers in the innovation process and many cases; customers are co-creating new products and services. Companies will create products based on the information received from their customers. The suppliers develop specifications to describe the product to potential customers. (Chesbrough 2011, 19.)

Nyström et al. (2011, 20) state that the principle of open innovation is not always to automatically produce better results than the closed innovation. Companies have to see the real benefit for them, and get the trusted partnership. According to Lindegaard (2011, 74), the most difficult situation faced by leaders who seek to move the organization toward open innovation is that they are alone.

Chesbrough (2011, 68-69) writes that open innovation has a vitally important role in services in accessing external ideas and information to be used in the service business and allowing unused ideas and information to be used outside in other services businesses. He argues that companies should organize their innovation processes to become more open to external knowledge and ideas. He also see that companies have still much to learn from each other and team members must be given opportunities to develop their intrapreneurial capabilities. It is important also to remind regularly why innovation is important and why it should continue even though there is more to be enough. (Chesbrough 2011, 68-69.)

2.3   Service design

According to Tuulaniemi (2011, 24), service design helps the organization identify its strategic opportunities for business services, innovating new services and developing existing services. It is not an innovation, but rather a way of combining old things in a new way. Tuulaniemi (2011, 67) points out that service design is an interaction process between the customer and the service provider where understanding of the customer becomes a central factor. It has to understand how the service parts are connected to other services, and how services will support each other. Blank (2013) says that at the moment developers invest thousands of man -hours to get the product or service ready for launch without any or with little customers' input. Those developers who success, learn from their customers when they move from failure to failure, iterating and improving their ideas.

Ojasalo et al. (2009, 77) point out that in the future, the customer will have a strengthened role in the production of innovation, and customer and consumers should be more closely involved in the development of new products and services. As an individual company's time and financial resources for the generation of innovations are limited, it is possible to increase the amount of networking with competitors and customers.

The traditional market economy theory describes the customer as a buyer who only uses the money and makes choices. In this case, the value is produced independently of the end-user and defined by demand and consumption. This traditional view does not allow for the inclusion of the customer's value creation. Innovation is seeking to resolve the customers´ problems, whether they are fully identified or hidden needs. Like Kortelainen & Leminen (2011, 50) write, the customers or users can be seen as the companies' development resources. Companies should decide at an early stage of the development process what kind of users or user communities they will initiate for development activities. As a result, the development process has to be flexible: the development process may be required by the new operators and new expertise. When the idea of the product focuses, that might bring new users that cannot initially be even thought. (Kortelainen et al. 2011, 50.)

According to Kortelainen et al. (2011, 52), it is the easiest for companies to involve customers who feel that they are necessary for the organization, in the development process. These are usually the company's active customers, and they also have much experience and knowledge of services and ideas to give, and these ideas are often faster to implement than information from other groups. (Kortelainen et al. 2011, 52.)

Service design always tends to be proactive and predictive. Predictive understanding can be used to design solutions that facilitate the client's life. Companies should dismount among the

customers. With the traditional customer feedback real customer understanding is not achieved. The importance of the identification and anticipation of customer needs cannot be overemphasized. If the customer asks what he would like, the customer's intent has already been changed when the product is finally on the market.

Many times new services are introduced on the basis of the managers' and employees' subjective opinions about the service, rather than on objective designs incorporating data about customer perceptions, market needs and feasibility. Because services are produced and consumed simultaneously and they often involve interaction between employees and customers, it is important that the new service development process involves also both employees and customers. Often the employees are the service or they perform or deliver the service, and their involvement because of that can be very beneficial. Employees can identify the organizational issues that need to be taken into consideration supporting the delivery of the service to customers. (Zeithaml et al. 2006, 255.)

Customers should be involved in the new service development process because they are often actively participating in service delivery. Providing input on their own needs, customers can help to design the service concept and the delivery process, particularly in situations where they carry out parts of the service process. (Zeithaml et al. 2006, 255.)

Service design advantages are related to the organization's strategic orientation, customer-focused activities, development of internal processes and deepening the brand and customer relationship and development of the new and existing services. Service design is a double win to the business; it mutually satisfies the customers and the organization. (Tuulaniemi 2011, 95.) Service Design is not limited to existing services or developing new ones, but it can also be utilized in the development of the organization's internal processes.

In Tuulaniemi's (2011, 243) view, the service is never finished, so it will continue to develop. The development is taken into account for a change of the market, people's consumption habits, weak and strong signals as well as continuing development of the service in order to optimize the customer's needs. The customer should note that they will receive the benefits (value), which is giving them increasing value. (Tuulaniemi 2011, 243.)

2.4   Service design process and methods

Stickdorn & Scheider (2013, 126) illustrate the iterative service design process framework (Figure 1) which includes four stages: exploration, creation, reflection and implementation. They point out that the Service design process is always an iterative process. It is important to understand and keep in mind that at every stage of the service design process, it might be

necessary to take a step back or start from scratch. Failure is one part of the process and it is crucial that you learn from the mistakes of the previous iteration. (Stickdorn et al. 2013, 126.)
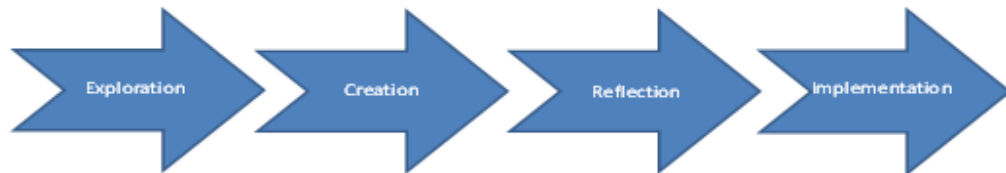
Figure 1: Service design process stages adapted from the picture by Stickdorn & Scheider (2013)

First stage in the service design process is always designing the process itself, because the process depends on the context of the service being designed and the process varies from project to project. Stickdorn et al. (2013, 126) point out that literature and practice refer to many other frameworks which are made up of three to seven or more stages, but at the end of the day they all share the same mind-set. For example Moritz (2005, 123) presents a framework which includes seven stages: SD understanding, SD thinking, SD generating, SD filtering, SD explaining and SD realising. At the end of the day, the process starts from understanding the customer needs and finding opportunities and ends for solution proposals.

Service design does not only provide a different way of thinking about problems, but the tools and methods to tackle them through design, implementation and measurement. (Polaine, Lovlie & Reason 2013, 189.) In following chapters we present the stages of exploration, creation, reflection and implementation from Stickdorn's & Scheider's iterative service design process framework. We also go through some service design methods under each stage where the method could be useful.

2.5   Exploration

Service designer's first task it is to understand the client organization's needs and its culture and goals for the service design process. Designer should know how well the client understands what service design thinking is. Another important question is that are they prepared for this kind of process? Then designer needs to identify the problem a service designer should work on. The problem can be an organizational one or it can be viewed from the organizational perspective. (Stickdorn et al. 2013, 128.)

The service design process itself starts from identifying the real problem, not finding the solution. That is an important part of the process. Exploration is time for discovering and understanding the customer problem. It is crucial for successful service design to achieve a clear understanding of the situation from the perspective of current and potential customers of a service. It is also very important to keep big picture and find the true motivations behind the customer behaviour. (Stickdorn et al. 2013, 128.)

Polaine et al. (2013, 36) remind that services are relationships between providers and customers and that services are complicated networks of relationships between people inside and outside the service organization. They also write that it is important to remember that people who interact with customers are also users and providers of internal services. If you do not take them into the development project, it might be difficult to engage them in a new service when it is time to implement it. (Polaine et al. 2013, 36.)

For this first stage of the service design process there are many methods and tools to explore and understand the behaviour and mind-set of all people involved. Ethnographic approaches are highly used for this (Stickdorn et al. 2013, 128-129.) Polaine et al. (2013, 40) conclude that qualitative research helps designers understand the chaos and emotions that make us human. Designers are interested in people's needs, behaviours and motivations because these can form the basis of design problems they are trying to solve. (Polaine et al. 2013, 40.)

After finding the problem, the next task is to visualise these findings and try to describe the structure of the previously intangible services. That will help the service design team to simplify the often complex and intangible processes. (Stickdorn et al. 2013, 129.)

2.5.1   Contextual interviews

Contextual interviews often take place in an environment or context where the service process is situated or occurs. This is an ethnographic technique which allows the interviewers to observe and explore the behaviour they are interested in. One benefit of making a contextual interview is that it helps interviewees tell and remember also the specific details they could forget in some other environment. Normally the participants are also more comfortable to provide insight in their familiar environment. At the same time the researcher is able to confirm the participant's answers by asking them to show e.g. how they do some task in real life. This can be very informal and revealing for the service designer. (Stickdorn et al. 2013, 163.)

To get a more holistic understanding of the service or process, it is also good that the researcher can see and feel the social and physical environment surrounding the service.

Polaine et al. (2013, 53) point out that in a business to business context, contextual interviewing of people at their work place can be very useful. However, the service designer should remember that if you are asking about people's feelings about their job, then it might be better to do the interview in some other place. They highlight the importance of the participants' need to feel comfortable while interviewing them because then they are able to be more open and honest with their answers. (Polaine et al. 2013, 53.) The interview is usually documented by recording it, with photographs and notes. The interview can be done with e.g. customers, employees, and other relevant stakeholders. (Stickdorn et al. 2013, 162.)

2.5.2   Stakeholder map

According to Stickdorn et al. (2013, 150), a stakeholder map describes the representation of the various groups involved in a particular service in a visual or physical way. It takes into consideration the employees, customers, partners and other stakeholders and in this way, the interaction between these groups can be surveyed and analysed. The stakeholder map visualises the complex situations surrounding most services, in where many actors have an effect on how the service is received and perceived. A complete overview of stakeholders is integral to any attempts at improving engagement. (Stickdorn et al. 2013, 150.)

A stakeholder map (Figure 2) can be made in many formats, but all of these should identify both internal and external stakeholders, establish their relative importance and present the stakeholders' relationships with each other. (Stickdorn et al. 2013, 153.)
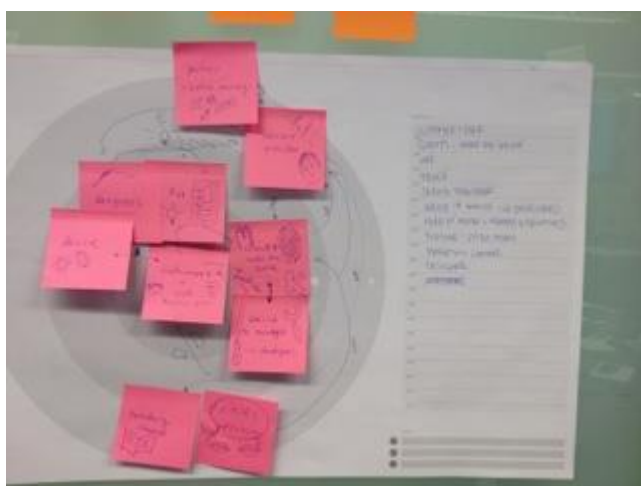

Figure 2: Stakeholder map

Creation of stakeholder map starts from the complete list of stakeholders and it is important also to highlight stakeholders that the service provider did not mention. To be able to create

a complete list, a service designer can use interviews and desktop research. After the list is completed, relations with each other and how they interact with each other are to be presented. This should be done in a visually engaging way to be able to produce an easily accessible overview that can identify pain points and explore potential opportunities. (Stickdorn et al. 2013, 150.)

2.5.3 Service safaris

Polaine et al. (2013, 58) point out that a service safari gives participants a first-hand experience of other services. Some of the services to be explored should be outside of the client's own industry to enable participants to be more objective. Service safari may provide ideas that the participants can transfer back to their own business. (Polaine et al. 2013, 58.)

A service safari takes people out of the building to explore examples of what they think are good and bad service experiences. A safari provides an opportunity to observe the service and it is one of the easiest ways to put people into the customers' shoes. A service safari can help people develop an understanding of the customer needs and problems. (Stickdorn et al. 2013, 154.)

A service safari might be a good way to open the clients' mind and give new ways to see how their customers are seeing and experiencing their service by experiencing it themselves. This empathy will help them innovate fresh, new ideas and it is an excellent technique for both redesigning existing services and designing new services because it helps to inspire new service ideas. (Polaine et al. 2013, 59.)

Polaine et al. (2013, 58) write that service safaris are usually best used in connection with a workshop session. It will help clients translate what they have learned from the safari into ideas for their business and it can bring inspiring material to kick off those sessions. Polaine et al. (2013, 58) continue that a service safari can be a good icebreaker for teams just starting to work with the service design. Stickdorn et al. (2013, 154) point out that a service safari is very easy to conduct and anyone can participate in it. It can be very revealing for the client team. In a service safari, people are asked to record their experiences and for that they only need some kind of equipment to do so. Great tools for that are, for example, smart phones, a small video camera or only a notebook and a pen. An example of collected pictures from a service safari is presented in figure 3. (Stickdorn et al. 2013, 154.)

Figure 3: Pictures from service safari

2.5.4   Shadowing

Moritz (2005, 196) writes that shadowing is following customers around and observing their behaviour. It is mostly made in the customers' natural environment by performing tasks and consuming products or services in a natural way. It can be also made with hidden cameras or wearable micro cameras. Shadowing can be very good way to get a real in-depth understanding of customers' natural behaviours. (Moritz 2005, 196.)

Shadowing allows researchers to place the moments where problems occur and by observing moments they can spot problems that the staff or customers do not even recognise as such. Spending time in the service environment is often the only way to create a good holistic overview of how the service is operating. Shadowing is also a good way to identify those moments where people may say one thing, and then act differently in real life. (Stickdorn et al. 2013, 156.)

2.5.5   Customer journey maps

Customer journey map is a visualisation of a service user's experience. One example of customer journey map is presented in figure 4. It presents the touch points where users interact with their feelings of perceived experiences. (Stickdorn et al. 2013, 158.) Meroni & Sangiorgi (2011, 241) point out that it maps out the customer journey through the service, identifying the main encounters, evidences and key actions of the service provider. Polaine et al. (2013, 105) say that mapping is one of the best ways to identify the changing context of a customer's interactions with the company. They continue that mapping brings understanding of what customers are feeling, thinking, and doing at any given point in time when they are

interacting with the service, and creates a recognition of how that changes. (Polaine et al. 2013, 105; Meroni et al. 2011, 241).

Figure 4: Customer journey map

The role of touch points is to make the process more tangible, clear and accessible. (Meroni et al. 2011, 241.) Stickdorn et al. (2013, 158) write that identifying touch points is crucial and it is generated by user insights. They say that the interview works well to get the user insight, but also it can be done by the customers themselves with e.g. blogs and video diaries. According to Meroni et al. (2011, 241), cross functional teams and end-users working together generate a more accurate representation of when and how value is co-produced. After touch points are identified, they can be connected together in a visual image. (Stickdorn et al. 2013, 158.)

2.5.6   The five whys

Ries (2011, 230) introduces the core idea of five whys that it is to tie investments directly to the prevention of the most problematic symptoms. He continues that the system takes its name from the investigative method of asking the question "why?" five times to understand what has happened in another way and what the root cause is. Stickdorn et al. (2013, 166) write that it is a chain of questions used to dig below the outward symptoms of the user experience in order to uncover the motivations that are at its roots cause.

This system is a very simple and easy way to establish links between root causes and surface problems and it needs very little preparation. It can be used in very different circumstances. The five whys are usually used to explore a particular problem in greater depth. (Stickdorn et al. 2013, 166.)

Ries (2011, 230) gives a good example of what the five whys mean. He tells that if you are familiar with the situation where a child asks something, e.g. "Why is the sky blue?" and keeps asking "why?" after every answer, then you know what this system means. Ries (2011,

230) also points out that this technique was developed as a systematic problem-solving tool by Taiichi Ohno, who is the father of the Toyota production system and Ries has adapted it for use in the Lean startup model with a few changes.

The tactic behind the five whys is to keep digging deeper into the underlying motivations for a specific behaviour or opinion. The answer from the first or previous question triggers a new question. The team or person answering to the questions needs to provide a convincing answer for each question that leads back from the original experience or problem. This system has five stages for not to lose its relevance and for not to go too far from the original question. (Stickdorn et al. 2013, 166-167.)

2.6 Creation

In the creation stage, the task is to generate and develop solutions based on the identified problems and insights which have been generated in the exploratory stage. Those are identification of the customers' needs, motivations, expectations, the service providers' processes and constraints, and the illustration of the customer journey with touch points. This is the time for concept design. Stickdorn et al. (2013, 130) highlight that one of the main features of service design thinking is that this approach is not about avoiding mistakes, but rather about exploring as many mistakes as possible. The idea is to make mistakes as early as possible in the process and learn from those before implementing or adopting a new concept. (Stickdorn et al. 2013, 130-131.)

In order to be able to achieve holistic and sustainable solutions, it is important to include all the main stakeholders, and work with interdisciplinary teams that include customers, employees, and management. Key feature for successful co-creativity is a good service designer. (Stickdorn et al. 2013, 131.)

2.6.1 Idea generation

There are lots of different ideation techniques that service designers use to structure and inspire group brainstorming sessions. They are usually simple exercises that can be used to stimulate discussions and at the same time they also provide structure to work. Different techniques such as, for example, SWOT analysis and mind-mapping have different motivations for their use. Some of them may be used as "ice-breakers", some for relaxing and some can be used to prompt imagination. They all have the goal of stimulating idea generation. (Stickdorn et al. 2013, 131.)

Brainstorming is used a lot for generating a large number of ideas with a group of people. It is a meeting where everybody is encouraged to give wild ideas and where criticisms should not take place. (Moritz 2005, 210.) The goal is to get lots of ideas written down (see Figure 5).

Figure 5: Brainstorming

Of course, different methods will be used in a different way. Stickdorn et al. (2013, 131) point out that it is important to choose the right ideation method for the situation at hand and it is also a crucial skill for a service designer to be able to abandon it if that is not delivering results and try another method instead of it.

2.6.2   Storyboards

According to Stickdorn et al. (2013, 186-187), a storyboard is a series of drawings or pictures that visualise a particular sequence of events. They continue that a storyboard might include a general situation where a service is used or it can be a hypothetical implementation of a new service prototype. Meroni et al. (2011, 254) point out that linking time, space, physical evidences and people interactions is a fundamental tool in service design, which makes the user's possible experience emerge.

When putting a service situation in its proper context, this kind of story board can be used as a service prototype. Storyboards can be used for analysis, discussions about potential problems and areas of opportunities. (Stickdorn et al. 2013, 186-187.)

Meroni et al. (2011, 254) introduce the key points of a good storyboard. First is the proper organisation of the frames for the comprehension of the narrative. Another important thing is the presence of an adequate amount of details in the images according to the purpose of the design phase. Then the accuracy of the elements that influence the user experience is also

one key point to remember. A storyboard can be made of drawings, pictures, images and photo compositions or 3D graphics whose sequence can be organised in different forms of visual strips. (Meroni et al. 2011, 254.)

2.7   Reflection

After building on the ideas and concepts from the previous creation stage, it is time to test them. This consists of building prototypes based on previously visualised ideas and then testing these prototypes with customers or experts to get feedback and improve the prototypes. This is an iterative approach of testing and retesting, but when we are talking about intangible services, we need distinctive methods. (Stickdorn et al. 2013, 132.)

Generating a good mental picture of the future service concept is the task for this stage. It is important to prototype service concepts in reality or in circumstances close to reality. This can be done in addition to a mere description by providing a conceivable story through a comic strip, storyboards, videos or photo sequences, etc. Also, different staging and role play approaches from theatre can be used in service design thinking. Because it is not always possible to prototype service moments in the real environment, the environment can be constructed as a kind of scenario. (Stickdorn et al. 2013, 132-133.)

2.7.1   Desktop walkthrough

Desktop walkthroughs bring the service situation to life. The service can be presented in many ways. It can be done, for example, with Lego figures (Figure 6). The idea is that the service situation is built in a 3D model and designers can show it by acting the situation for others. It is a very good way of prototyping a new service and it is a very engaging way of doing that. The main thing is to have a tangible setup of a service situation that enables people to discuss future usages of the new service. The same scene can be acted many times and it allows designers to change it iteratively after every discussion and feedback that they will perceive. It provides a common language for people and they can be part of developing a prototype. (Stickdorn et al. 2013, 190-191.)

Figure 6: Desktop walkthrough with Legos

2.7.2 Service prototypes

It is very important to create a situation where real people can test the service as early as possible in the development process in order to be able to deliver successful services. Sometimes very small details can have a huge effect on the customers' experience. The challenge in presenting new services is to show how they will work in real life and how they will impact the service experience. A service prototype will show how the service will work. It is a simulation of a service experience. It can be conducted in many forms from role-play to a more detailed mock-up which involves users and has a physical touch point. (Stickdorn et al. 2013, 192; Moritz 2005, 226; Polaine et al. 2013, 40). For digital services, paper prototype is one good way to show how the service would be like (see figure 7). They can be very useful to make the service more tangible and visualise it and test the service experience.

Figure 7: Paper prototype of digital service

The aim is to test the service solution and it is usually developed iteratively. It can create a deeper understanding of the service than only a written or visualized description of the new service solution. (Stickdorn et al. 2013, 192.)

2.8   Implementation

A clear communication of the created new service concept is essential and needs to include the emotional aspects of service. That is the desired customer experience. Employees are also important actors besides customers, from this point of the process. Their motivation and engagement are crucial for the implementation and that is why they need to understand and support the concept. In an ideal situation, the employees should contribute to the prototyping of particular service moments and, therefore, have a clear vision of the concept. It is important to keep an overview of the improved processes and deliverables at an organizational level, and service blueprints are usually used to illustrate these processes and evidences. Stickdorn et al. (2013) write that the implementation means turning the ideas into action and tools that provide ways to transfer the new or improved service design to all sections of the organization. (Stickdorn et al. 2013, 134-135.)

2.8.1   Storytelling

Stickdorn et al. (2013, 2012) write that storytelling is a method for sharing insights and new service concepts. It situates new or improved services within a narrative context. Interesting narratives can be constructed for all aspects of the company's service, from its customers' experiences to staff experiences and the experience it provides. Storytelling is usually done with personas to provide insight into user experiences. (Stickdorn et al. 2013, 202.) Moritz (2005, 204) has expressed a similar view when he writes about LEGO serious play. He notes that giving meaning through storytelling and playing-out various possible scenarios deepens understanding, sharpens insight and creates strong bonds among the group of participants. It helps the team communicate more effectively and engages their imaginations. It also approaches their work with increased confidence, commitment and insight. (Moritz 2005, 204.) Presenting the project itself in a narrative context allows people to follow more closely the process and that can help companies re-orientate their business and organisation around service design principles. (Stickdorn et al. 2013, 202.)

2.8.2   Service blueprints

Service Blueprint is a very useful way to describe the path of the customer's service. Blueprint is described as the contact point of the service provider and the customer as well as central actors of the process. The description includes the customer service experience and the view

of the service provider action in the background. According to Tuulaniemi (2011, 210) the blueprint model, based on the process of thinking, works as well as development tools of new service products, to describe the service production model, and a repair tool of the existing services. In a blueprint, the service shows the different functions of the customer's point of view. The service chain describes chronologically the company's various performance areas and in many cases even over the corporate boundaries.

Service blueprints present each aspect of service. That involves the perspectives of the user, the service provider and other relevant parties that may be involved in the service. It includes every touch point from customer contact to backstage processes. (Stickdorn et al. 2013, 204.) Meroni et al. (2011, 255) describe that the blueprint is a holistic representation of the service used to help manage the complexity of a service system. The blueprint maps a service and presents processes that the organization needs to perform in order to support it, together with the service evidences and incidental failure points. (Meroni et al. 2011, 255.) An example of a blueprint is presented in figure (8).

Figure 8: Service Blueprint

Service blueprints are usually created collaboratively and they are a great way to bring together different Business units or teams. Often different teams have some influence along the service delivery. Bringing them all together to create the blueprint gives them awareness of what others are doing and what their responsibilities are. (Stickdorn et al. 2013, 204.)

It can be used when analysing an existing service or to design a new one. Blueprints help the designers evaluate the process, actions, tools and resources which are needed to implement service ideas and offerings. (Meroni et al. 2011, 255.) According to Stickdorn et al. (2013, 204), once ideas and innovations have been formulated, the service blueprint is further

detailed and expanded at the implementation stage and that helps to provide a clear roadmap for the actual service delivery.

2.9 Changing the corporate culture

Corporate culture relates to the core organizational values even though there are many definitions for it. Values are things which are important to organizations and which underpin their decisions and behaviour. All organizations have cultures or values which influence the way people behave in many areas, such as how they treat their customers, standards of performance, innovation, etc. (Flamholtz & Randle 2012, 77.)

Flamholtz et al. (2012, 77) write that corporate culture consists of values, beliefs, and norms which influence the thoughts and actions (behavior) of people in organizations. They continue that values, beliefs, and norms are the key components or elements that define a corporate culture. Values are the things which an organization considers most important with respect to its operations, its employees, and its customers. Those are the things an organization holds most important and those are the things it wants to protect at all costs. Beliefs are assumptions which individuals hold about themselves, their customers, and their organization. Norms are the unwritten rules of behaviour that address such issues as how employees dress and interact. Flamholtz et al. (2012, 77) state that norms help to operationalize actions which are consistent with values and beliefs. (Flamholtz et al. 2012, 77.)

We believe that many companies' corporate culture needs to change and companies need a new way of thinking to be able to survive in the ever-increasing business environment. We think that in the future, the start-up culture and intrapreneurship are showing a growing direction. Companies are going towards a culture of innovation, and customers will play an essential role in their business operation.

Vehkaperä et al. (2013, 6-7) point out that the renewal can be a clear competitive advantage for the company. It can influence how the service will be perceived, and how the organization may recruit qualified and skilled employees. For employees, it is meaningful to to work in a company that is interesting and provides an opportunity to learn something new. (Vehkaperä et al. 2013, 6-7.) Shook (2010, 66) also highlights that anyone who wants to change a culture needs to first define the actions and behaviours they desire and then design the work processes that are necessary to reinforce those behaviours.

Change takes time and commitment from all employees. Especially the commitment from the management is crucial and the readiness to make moves and decisions towards a desirable culture.

2.10 Lean startup inside the organization

We see that lean startup is a culture and way of thinking. In a large company it can be huge change of the company's culture.

According to Blank & Dorf (2012, xix.), most large companies grow by offering new products which are variants of the company's core products. They can also turn to disruptive innovation, attempting to introduce new products into new markets with new customers. Large companies' size and corporate culture can make this disruptive innovation very difficult to execute and launch into a scalable startup inside a big company. (Blank et al. 2012, xix.)

Blank (2013) states that the lean startup model can help large companies deal with the forces of continual disruption which make all people in every kind of organizations feel the pressure of rapid change. Many large companies understand also that they need to innovate in order to deal with the ever-growing external threats and that they need to keep inventing new business models. This is something where they need new organizational structures and skills. The lean startup approach will help also to innovate rapidly and transform their business. (Blank 2013.)

Startups have lots of activities in real life and the challenge of entrepreneurship is to balance all of these activities. According to Ries (2011, 24), even the smallest startup faces the challenge of supporting the existing customers at the same time while trying to innovate. Also the most established company needs to invest in innovation in order to stay in competition. (Ries 2011, 24.) Cooper et al. (2013, 23) see that to succeed, grow and thrive the organisations have to focus on a real value for known customers. Even though the organisation is fast, agile and quick thinking, it also has to continuously improve the process of outputting not only the output.

Lean production techniques are very powerful but they are only a manifestation of a high-functioning organization. Organization has to be committed to achieving a maximum performance by employing the right measures of progress. Process is the foundation where the great company culture can develop and without this foundation, efforts to encourage learning, creativity, and innovation will fall. The lean startup works only if the company is able to build an organization that is as adaptable and fast as the challenges it faces. (Ries 2011, 205.)

2.11   Intrapreneurship

Ries (2011, 27) writes that entrepreneurs who work inside an established organization are sometimes called intrapreneurs because of the special circumstances that attend when building a startup within a bigger company. He believes that intrapreneurs have much more in common with the rest of the community of entrepreneurs than most people believe. (Ries 2011, 27.) There are many definitions of entrepreneurship and intrapreneurship. In Druckers´opinion (2007, 23), entrepreneurship is a skill that everyone can learn and everyone can behave entrepreneurially. Entrepreneurship, then, is behavior rather than a personality trait. Robinson (2001) writes that intrapreneurship influences organizational learning particularly as it relates to opportunity assessment or the creation and commercialization of new knowledge intensive products, processes or services.

Wunderer (2001) points out that the changes in the business environment and management philosophy have led to the fact that companies to demand intrapreneurship from all employees. According to him, intrapreneurs can then be understood as co-operating organization members and as an opportunity for the company. Employees with an intrapreneurship attitude are willing to innovate, identify and create business opportunities. They can also assemble and co-ordinate new combinations or arrangements of resources so as to yield or enhance the value. (Wunderer 2001.)

Kansikas (2007, 9) rightly points out that organizations need employees who are an initiative, self-learning, composing and who can utilize their own knowledge and undertake their work with an intrapreneur's perseverance. The employees are expected to have entrepreneurial characteristics: be active, spontaneous and productive at work. Encouraging employees to intrapreneurship and independent way of work can motivate and increase commitment to work. (Kansikas 2007, 9.) We believe that people with intrapreneurial skills are needed for implementing the lean startup approach for large established companies. A company can create internal startup team or teams to accelerate its development processes. That means that the management has to give space for their ideas and trust towards their work. This can be very hard for the management.

There seems to be two key concepts related strongly to intrapreneurship: innovation and risk-taking. Risk-taking is needed because innovation involves risks in the sense that the result is often surviving after a long time. Organizations might be afraid to take risks and take advantage of entrepreneurship. Drucker (2007, 26) points out that entrepreneurship is risky mainly if there are entrepreneurs without knowledge about what they are doing. He emphasizes that in order for entrepreneurship to be systematic, it needs to be managed and be based on purposeful innovation. (Drucker 2007, 26.)

Kansikas (2007, 92-93) says that intrapreneurship depends on the following factors: personal skills, properties, skills and attitudes, situational factors and conditions, attitude of intrapreneurship: the owner of the organization, managing director, supervisors or co-workers, job description or job structure and other environmental factors. Antoncic & Hisrich (2003) point out that the intrapreneurial process goes on inside an existing firm, regardless of its size. Its characters are for example business venturing, process innovation, self-renewal, risk-taking, pro-activeness and competitive aggressiveness. (Antoncic et al. 2003.)

Cooper et al. (2013, 24) lift up the five core principles described by the developer of the lean startup approach Eric Ries:

1. Entrepreneurs are everywhere – anyone creating new products or services in the face of extreme uncertainty.
2. Entrepreneurship is management - one can use processes to navigate uncertainty, and so these processes must be managed.
3. Validated learning – start up exists to learn how to build a sustainable business.
4. Build-measure-learn-a feedback loop used to validate in the marketplace that business activities (including but not limited to product, distribution, delivery, marketing, sales) are the right ones.
5. Innovation accounting – how to measure the progress of learning. (Cooper et al. 2013, 24.)

Antoncic et al. (2003) write that by using intrapreneurship organizations are creating more new business ideas. He continues that these companies are innovative and proactive and constantly renew themselves. Risk-taking, autonomy and competitive spirit are the features that can be combined with intrapreneurial organization behaviour. (Antoncic et al. 2003.) According to Heinonen et al. (2002, 93), intrapreneurial culture consist of a clear vision and the environment will support its implementation. The environment encourages innovation and risk-taking. The vision is based on the customer and market dictated by the starting points, as well as on anticipation of changes occurring. Learning in the innovative environment is scattered throughout the organization, regardless of levels and functions. (Heinonen et al. 2002, 93.) All of these aspects can be found also from the lean startup ideology. Heinonen et al. (2002, 74) also state that intrapreneurship combines action and thinking, as well as the visions of operation and the future. In the best case, the organizational culture gives the freedom to intrapreneurs to implement their ideas, and encourages them to new creative activities. (Heinonen et al. 2002, 74.)

Koiranen & Pohjansaari (1994, 31) state that intrapreneurship refers to the development of new products and the organization's strategic renewal. They continue that the features of intrapreneurship are related, for example innovation and flexibility have come to be

desirable today. The way of thinking about work and management is changing. The commitment of the organization formed the basis of management. Heinonen et al. (2002, 128-129) point out that it is important to consider a few principles in intrapreneurship. The principles are to encourage people with ideas and provide an opportunity for those who have the will and energy to carry out the ideas and the determination to take action. It should enable and organize the necessary training for employees and provide the space and freedom that intrapreneurs need to diagnose, to edit and re-test the ideas. It is also important to allow small failures and hold them for high success. (Heinonen et al. 2002, 128-129.)

According to Koiranen et al. (1994, 36-38.), intrapreneurship encourages employees to implement new ideas and give the freedom to create and market their ideas. They write that intrapreneurs are not always inventors of new ideas, products, or services, but their role is to develop and transform an idea into a real product. The intrapreneur is a key person of innovation who takes responsibility for creating innovation within the organization and who makes the organization provide new opportunities by pushing and guiding the process of innovation. *"Without the intrapreneur, innovation remains unrealized potential,"* says Robinson (2001). He also points out that in order to implement innovation, the individual will be involved in and committed to the intrapreneurial spirit and drive it within the organization. An individualist will need to be able to combine a blend of different roles: to be a leader, innovator and entrepreneur to succeed.

Encouraging intrapreneurship requires intrapreneurship essence and the factors affecting it have to be identified. In that way, the organization can adopt intrapreneurship as a permanent operation mode. Intrapreneurship factors can be divided into three main categories: management practices and organizational climate, control and reward systems, organizational structure. To become an intrapreneur affects the individual's personality, motivation, status and environmental factors (Koiranen et al. 1994, 40-41.)

Kansikas (2007, 64-65) classified the growth of an intrapreneur into five categories: growth of skills, knowledge, sociality, resources and spirituality. Growth of the intrapreneur illustrates that they take responsibility for their own work, or share it. In Kansikas' opinion (2007, 71-73), intrapreneurship is refining into teamwork. It is the division of labor within the team based on intrapreneurship, which supports the sharing of power and responsibility. A well-functioning team encourages collaboration. (Kansikas 2007, 71-73.) Organizations have to be able to serve better than before their increasingly demanding customers with scarce resources. Intrapreneurship seems to offer a solution for that problem.

2.12 Portfolio thinking

Ries (2011, 253) writes that when the startups grow, entrepreneurs can build organizations that learn how to balance the needs of existing customers with the challenges of finding new customers, managing existing business and exploring new business models. And they should do all of this at the same time. He believes that if the large established companies are willing to change their management philosophy, they can also do a shift to what he calls portfolio thinking. (Ries 2011, 253.)

Ries (2011, 253) states that internal startup teams require support from senior management. He continues that the team needs three structural attributes: scarce but secure resources, independent authority to develop their business and a personal stake in the outcome. All of these requirements are different from those of established company divisions. (Ries 2011, 253.)

By scarce but secure resources Ries (2011, 254) means that the lean startup team requires much less capital overall, but that capital must be absolutely secure from tampering. Normally projects in established companies can lose part of their budget if some crisis emerges elsewhere in the organization. That is not necessarily a catastrophe for the team, because it basically means that they have to work harder and do more with less. For the startup this is different. Too much budget is as hurtful as too little for a startup. If the startup loses part of its budget, it can be very harmful for it, because they are run with little margin for error. (Ries 2011, 254.)

Independent development authority is needed because startup teams need complete autonomy to develop and market new products within their limited mandate. For to be able to consider and execute experiments, the team needs to be able to do that without having to get a number of approvals. Ries (2011, 254) strongly recommends that startup teams should be completely cross-functional and have a full-time representation from every functional department in the company that will be involved in the creation or launch of their products. He stresses that they have to be able to build and ship actual functioning products and services, not just prototypes. (Ries 2011, 254-255.) To give this kind of autonomy for the team can be hard for the organization, but we believe it is necessary.

Ries (2011, 255) points out that the third thing what the entrepreneurs need is a personal stake in the outcome. This is normally a financial bonus system, but Ries believes that it does not have to be always financial. The parent organization needs to make it clear who is the innovator and give credit for the innovator for having brought the new product to life when it is successful. (Ries 2011, 255.)

2.13   Sandbox for innovation

Ries (2011, 261) suggests that when starting work with the lean startup approach in a large company, the company should first create a sandbox for innovation. That will contain the impact of the new innovation but not constrain the methods of the startup on the path toward a sustainable culture of innovation. He also suggests that the sandbox has to be quite small at the beginning. It can be one team who must see the whole experiment from end to end and within a specific timeframe. The experiment can affect only some customers and the team should be allowed to attempt to establish a long-term relationship with them. That is because the team might be experimenting with those early adopters for a long time before their learning milestones are accomplished. (Ries 2011, 261.)

Ries (2011, 262) highlights that the team must create metrics in order to be able to monitor its success and customer reactions while the experiment is in progress. The team should also be cross-functional and have a clear team leader whenever possible and it should be able to build, market and deploy products in the sandbox without prior approval. Reporting about their success or failure for the company by using actionable metrics and innovation accounting is important. Working in this way can work for even those teams that have never before worked cross-functionally. (Ries 2011, 262-263.)

The team learns instantly whether its assumptions about how the customers will behave are correct by using the same metrics each time. At the same time the company will become aware of those metrics. The sandbox also encourages rapid iteration and the team will benefit from the power of feedback when the work is done in small batches. Using the small batches allows the team to make cheap mistakes quickly and start learning. (Ries 2011, 264.)

This sandbox is like a small company inside a larger company. Ries (2011, 267) states that in fact entrepreneurship should be considered as a viable career path for innovators inside a large organization. He also writes that managers who can lead teams by using the lean startup methodology should not have to leave the company to get rewards for their skills or have to pretend to fit into the rigid hierarchies of established departments. Ries (2011, 267) suggests that instead they should have a business card which says entrepreneur as a job title. (Ries 2011, 267)

Eventually the developed product needs to be reintegrated into the parent company, and a larger team will be needed. In the beginning, that team will require the continued leadership of the innovators who worked in the sandbox. That gives an opportunity for innovators to train new team members in the new style of working that they mastered in the original sandbox. (Ries 2011, 267)

3 Lean startup approach

The name of the lean startup comes from the lean manufacturing revolution that Taiichi Ohno and Shiego Shingo have created with developing at Toyota. According to Ries (2011, 18), lean thinking means changing the way supply chains and production systems are run and it has taught the world the difference between value-creating activities and waste. In an interview with Euchner (2013, 12), Eric Ries says that lean thinking is quite like learning to tell the difference between the activities in an enterprise that create value and those that are a form of waste. He also tells that where the lean startup idea is different from traditional business thinking is that that we are applying that same concept in the innovation process itself. Ries (2011, 18) writes that lean startup has also showed how to build quality into products from inside out. The basics of Toyota's production system are at the right time (just in time), the customer (quality) and continuing development which is the aim perfection (Tuominen, 2010, 30.)

Blank (2013) also sees similarities between startup disciplines and the lean manufacturing at Toyota. With the lean approach, service development companies can launch products and services faster and cheaply with fewer risks. According to Croll et al. (2013, 41), lean startup needs to be thought as a process used to move forward and achieve a vision. They see that lean startup is focused on learning, and it encourages broad thinking, exploration and experimentation. In the following chapters we introduce the basics of the lean startup approach and how we see that those should be implemented in the organizations.

3.1 Lean thinking

There are many different definitions of lean in articles and literature and it is often understood wrongly. Lean concept comes from Toyota`s developed production system, which the researchers have named the lean. Although the Toyota Production System is named lean manufacturing, it is not the same concept as the Toyota Production system (TPS). (Modig & Åhlström 2013, 67; 79.)

Eaton (2013, 24) states that the three key aspects of lean are the following:

1. Focusing on delivering better value to your customers.
2. Doing more with less.
3. Ensuring that when delivering more with less does not endanger quality, safety or the long-term stability of the organization.

Arlbjørn & Freytag (2013) have researched the definition of lean and according to them, the extant literature on lean seems to lack concrete definitions of what lean actually is: "*Lean production is lean because it uses less of everything compared with mass production – half the human effort in the factory, half the manufacturing space, half the investment in tools, half the engineering hours to develop a new product in half the time.*" (Arlbjørn et al. 2013)

Modig et al. (2013, 85) and Arlbjørn et al. (2013) both state that lean is considered as an abstract idea: an attitude, a philosophy, a culture and principles and it is seen as a concrete thing: the habit of working, methods and tools. In Tuominen's opinion (2010, 24) lean is a way of thinking and acting, that supports the company's daily operations and long-term goals. Blank (2013) concludes that the lean concepts help the company differentiate the good from the bad. Modig et al. (2013, 144) also points out that in the implementation of lean it is not important how the flow is improved, but that it will be improved.

Womack & Jones (2003, 16-25) and Eaton (2013, 40) present the five principles of Lean (figure 9) which concentrate on the implementation of lean and enable companies to improve their business processes.
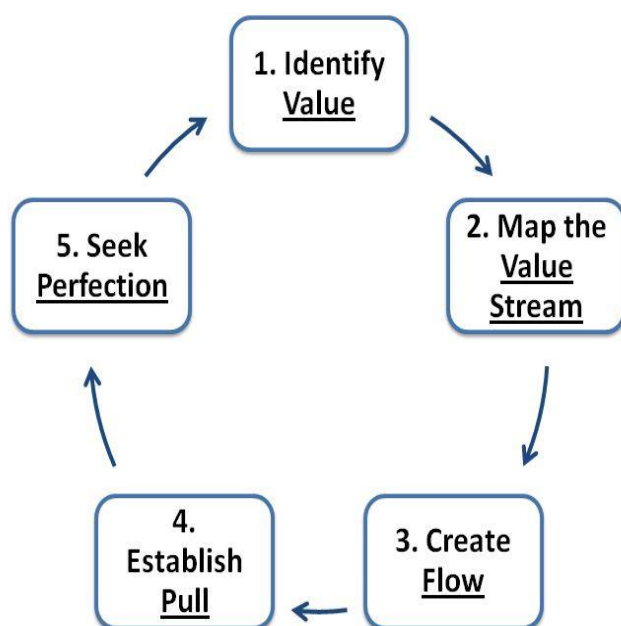
Figure 9: The 5 principles of lean adapted from the picture by Eaton (2013)

As the figure shows, the first principle is a specific value which is created by the producer and from the customer´s standpoint. The second principle is the value stream which is a set of all the specific actions required to bring a specific product through the three critical management tasks: problem-solving, information management and transformation. These

steps allow the flow and remove those that do not deliver any value. The third principle is the flow that consists of the value creating steps that produce flow smoothly towards the customer. This phase is followed by the forth principle, the pull. That means that when the flow is ready, let the customers pull the value of the product from the enterprise. The fifth principle is the perfection. That means that there is no end to the process. It starts again and continues until it reaches the situation in which the total value is producing without waste. Dialogue with customers finds ways to specify the value more accurately and often learn about ways to enhance the flow and pull, as well. (Womack et al. 2003, 16-25.)

Modig et al. (2013, 67) see that lean is the most widespread management philosophy, and for that reason currently present in every industry. The focus in lean is to understand what the customer wants and how it can be implemented in the company by the customer's point of view. Lean makes service processes transparent and easy to follow up. Tuominen (2010, 92) states that the business must produce value to the customer which the customer is willing to pay. The aim is to improve customer satisfaction and also increase value to the stakeholders. In order to understand how to be successful, measuring is required. According to him, the metrics should be selected in such a way that they are suitable for lean thinking and provide critical feedback to managers and employees. It is important to choose the right metrics and develop them. (Tuominen 2010, 112.)

3.2   Startups

According to Blank et al. (2012, xvii), a startup is a temporary organization searching for a scalable, repeatable, profitable business model, and at the outset the startup business model is a canvas with ideas and guesses, but it has no customers and minimal customer knowledge. Ries (2011, 27) states that a startup is a human institution designed to create a new product or service under uncertain conditions. Ries also points out the uncertainty in Euchner's (2013, 12) interview by defining that characteristic of a startup is its environment of extreme uncertainty.

Blank et al. (2012, xix) highlight that a startup is not a smaller version of a large company. There are different types of start-ups, for example small startups, scalable startups, buyable startups, social entrepreneurs and large company entrepreneurship. Each of these five startup types has entrepreneurship and innovation at its heart and they all improve their changes for finding the right way to success through the use of customer development. (Blank et al. 2012, xix.) It is clear therefore that entrepreneurship is very important also for large companies when they are facing uncertainty. It gives them a tool to find the right solutions and to be more innovative with their customers.

Cooper et al. (2013, 195; 201) point out that a startup`s job is to learn, not execute. The only way to find out is to engage the market. Though lean startup is about developing products iteratively, releasing quickly and often gauging market acceptance, it is also learning how to sell and understanding how to market. (Cooper et al. 2013, 195; 201.) We think that learning is hard for large established companies and lean startup inside the company would be very good way to start learning for them. Learning is crucial when the company needs to stay in the competition because the world is changing rapidly.

3.3   Customer development

Often companies are using traditional product development processes like waterfall methodology in their service development. As Blank et al. (2012, 22) have indicated correctly, the traditional product development does not offer customers' feedback until the finished product is out, and then it is usually too late. They also point out that many startups are lacking a structured process for testing theirs business models' hypotheses, markets, customers, channels, pricing and ways to turn those guesses into facts. We see that the same situation is often in large companies.

The customer development model breaks out all the customer-related activities of an early stage company into companies' own processes in four steps. The first two steps outline the search for the business model, and steps three and four execute the business model which has been developed, tested and proven in earlier steps. (Blank et al. 2012, 22.)

Blank et al. (2012, 22, 30) write that the first step is customer discovery which first captures the founders' vision and turns it into a series of business model hypotheses. After that it develops a plan to test customer reactions to those hypotheses and turns them into facts. The second step is customer validation which tests whether the resulting business model is repeatable and scalable and if it is not, you return to the first step. The third step is customer creation and it is the start of execution. That builds end-user demand and drives it into the sales channel to scale the business. The last step is company-building which transits the organization from startup to a company focused on executing a validated model. This is the step when the startup finds a scalable, repeatable business model. (Blank et al. 2012, 22, 30.)
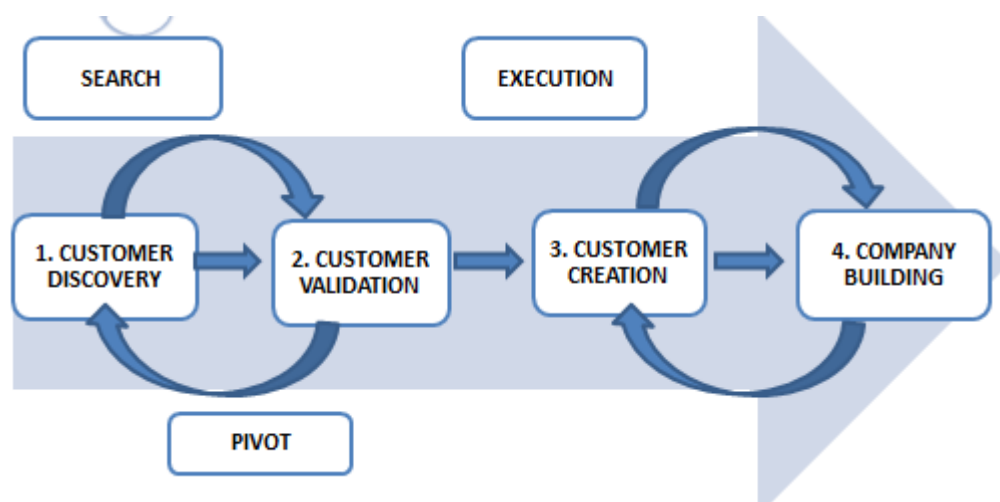
Figure 10: Customer development model adapted from the picture by Blank (2013)

In the customer development model (Figure 10) every step is iterative. Blank et al. (2012, 23) highlight that in a traditional product development plan, moving backwards would be considered as inacceptable failure, but in the customer development moving backwards is a natural and valuable role in learning and discovery. Lean startups use the customers' input to revise their assumptions and they start the cycle again. They test their renewed offerings and make further small adjustments called iterations or more substantive ones called pivots to ideas which did not work. (Blank 2013.)

Blank et al. (2012, 30) introduces 14 rules in customers' development manifesto and those are presented here briefly.

1. There are no facts inside your building and that is why you need to go outside. That means that you should go out of your building to listen to your customers and to get feedback from them.
2. Do customer development with agile development. Customer development is useless if the product development organization cannot iterate the product with speed and agility.
3. Failure is an essential part of the search because in a startup you are searching, not executing, and in order to find the right path you need to try experiments.
4. Make continuous iterations and pivots. A pivot is a substantive change in some of the boxes in business model canvas.
5. No business plan survives the first contact with customers, so use a business model canvas. Business plans are only made for the investors, but much more flexible and useful for startups is the business model.
6. Design experiments and test to validate your hypothesis.
7. Agree on the market type. It influences everything a company does.

8. Startup metrics differs and they should focus on tracking the startup's progress converting hypothesis into facts rather than measuring the execution of static plan.

9. Fast decision-making, cycle time, speed and tempo are very important for startups.

10. People leading startups are different and they are focused on customer needs and delivering great products.

11. Startup job titles differ from large companies.

12. Preserve all cash until needed and then spend.

13. Communicate and share learning. That means that everything that's learned from outside the company will be shared with the employees, co-founders and even investors.

14. Customer development success begins with buy-in, when everyone accepts the process. (Blank et al. 2012, 23.)

Customer development is a new way of doing this and it can be a new culture for the company if it applies all of these 14 rules or maybe just some of them. We believe these are the right steps towards an innovative corporate culture. Working in this way, the customer has an important role and the company does better decisions.

3.4   Getting out of the building

With lean thinking, business decisions can be based on deep first-hand knowledge. The most important phrase in the lean manufacturing vocabulary is the Japanese term 'genchi gembutsu' which is translated usually into English as a directive to "go and see for yourself". (Ries 2011, 86.)

Blank (2013) notes that lean startups use a get-out-of-the-building approach to test their hypothesis which is called customer development. He says that it means that they go out and ask for feedback from their potential users, purchasers and partners for all elements of the business model. Pendolin & Kari (2013, 8) point out that customer understanding, or rather the lack thereof will affect how successful the product is. They see that almost all the problems stem from a lack of understanding. They state that customer understanding can be learned only by going out of the building and meeting the customers.

Pendolin et al. (2013, 106) point out that the only way to understand the size of the potential market is to be constantly in touch with customers. According to them, customers do not refer only to existing customers, but also the competitors' customers as well as those who have not yet seen the need for the product. The signals from the early stages of the field could exacerbate excessively, so they should be treated with caution. They encourage to ask themselves often enough whether there is a need for a single customer, or the entire target group, and how can I verify this? (Pendolin et al. 2013, 106).

3.5   Early adopters

Early adopters are called a group of people who follow the innovations and stick to them. They are the people that the company should find when using the lean startup approach in their development process. An early adopter has a strong need to be part of a social group, and in most social groups, just the early adopters are opinion leaders who have been listened to and who will be modelled. Early adopters are the main target audience of the company's change agents and working groups. They will always strive to find each social group of test users for innovation. If they adopt the innovation, diffusion can be predicted to succeed. The early adopter is a respected member of the team, who plays a central role in the adoption process. (Rogers 2003, 283.)

The new product can start making a wide variety of starting points. According to Pendolin et al. (2013, 13), at baseline one should consider the following aspects:

• The need - to ensure that the new product, service or solution is needed
• The market - is the number of possible customers large enough for profitable business operations
• The conditions of competition – What are the reasons why your company has a chance to succeed in the business.

The early adapters are playing a key role when creating something new and an innovative product or service and they want to test whether they are good enough to achieve sufficient popularity. As a good example of the early adopters, Pendolin et al. (2013, 24) present Dropbox, whose functionality was demonstrated with a simple video. The video was intended for early adopters, who are passionate about a new technology group. The video became an instant hit on social media (YouTube), and the idea attracted a lot of demand.

3.6   Build-measure-learn feedback loop

Traditionally, companies make first the business plan for their company and assumptions about how their business will work and how much money it will make before they start to do anything. Like Ries (2011, 22) states, the lean startup approach is designed to teach how to drive a startup. Instead of making complex plans based on assumptions, a company can make constant adjustments with the build-measure-learn feedback loop. With this process the company can learn when and if it is time to make a major change called a pivot, or whether it should stay along its current path. Lean startup approach offers methods to scale and grow the business with maximum acceleration. (Ries 2011, 22.)

Startups transform ideas into products and when customers interact with the products, they generate feedback and data, both qualitative and quantitative. That information is very important for the development team, because it can influence and reshape their next ideas. This three-step learning process is called the build-measure-learn feedback loop (Figure 11) and it is at the core of the lean startup approach. (Ries 2011, 75-76.)
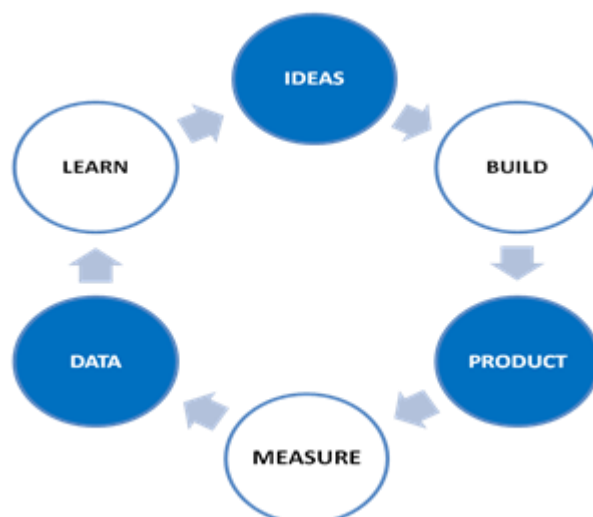

Figure 11: Build-measure-learn feedback loop adapted from the picture by Ries (2011)

According to Pendolin (2013, 39) and Croll et al. 2013 (xxii), the most important thing is the speed. The faster the company iterates through the cycle, the more quickly it will make sure that the new product meets the customer requirements, and the product becomes marketable. Also Ries (2011, 76) states that it is very important to minimize the total time through this feedback loop.

Croll et al. (2013, 27) emphasize the importance of measuring and they use the term lean analytic whose meaning is to find a meaningful metrics and improve it until that metrics is good enough. According to them, lean analytics is used to measure the lean startup process and help to ask the most important questions and get clear answers quickly. (Croll et al. 2013, xix.)

3.7   Validated learning

As Blank et al. (2012, 17) write, *"Failure is an integral part of the search for a business model"*. Ries (2011, 113) points out that in traditional management failing is not allowed and the manager who promised to deliver something world-changing is in trouble if he fails to do so. There are only two explanations for that and those are a failure of execution or a failure to plan appropriately. Neither of these is acceptable. Entrepreneurial managers face a

difficult problem of how they can show that they failed because they learned something critical. (Ries 2011, 113.)

Lean startup's destination is to create a thriving and world-changing business, and Ries (2011, 22) calls that a startup's vision. Startups employ a strategy, which includes a business model, a product road map, a point of view about partners and competitors and ideas about who the customers will be, to achieve that vision. The end result of this strategy is the product. The most important question is not "Can this product be built?", but "Should this product be built?" and "Can we build sustainable business around this set of products or services?" To know that, startups need to test each component from their business plan empirically. This means that everything they do is understood by experiments designed to achieve validated learning. (Ries 2011, 55.)

In the lean startup approach, every product, feature and marketing campaign is understood to be an experiment to reach validated learning. Validated learning is the process of demonstrating empirically what you have discovered about the startup's present and future business prospects. (Ries 2011, 38.)

3.8   Pivots

Products change constantly through the process of optimization, what Ries (2011, 23) calls that tuning the engine and the strategy may have to change (pivot). Instead of that the vision rarely changes, because entrepreneurs are committed to seeing the startup through to that destination. Every setback is an opportunity for them to learn how to get where they want to go. (Ries 2011, 23.)

Pendolin et al. (2013, 113) say that pivot is going towards a new direction, and it has to made if the development of a new product is not moving fast enough towards a breakthrough. According to Ries (2011, 147-150), at some point every entrepreneur faces a challenge in developing and that is when to pivot and when to persevere. The question they face is that is the original strategic hypothesis correct or do they need to make a major change. The change is called a pivot, which is a structured course correction designed to test a new fundamental hypothesis about the product, strategy and engine of growth. Startup productivity is about aligning efforts with a business and product that are working to create value and drive growth. Successful pivots put developers on a path toward growing a sustainable business. (Ries 2011, 147-150.)

Maurya (2012, 9) points out that a pivot experiment means validating parts of the business model hypothesis in order to find a plan that works, and an optimization experiment means

attempting to refine parts of the business model hypotheses in order to accelerate a working plan. The goal of the pivot experiment is a course correction or a pivot, and the goal of the optimization experiment is efficiency or scale. To be able to maximize the learning, startups need to pick bold outcomes rather than chasing incremental improvements. (Maurya 2012, 9.)

How and when to make a pivot? Pendolin et al. (2013, 114) prompted to assess periodically what really has changed, and what new we know, and how this information affects the business model. According to Ries (2011, 164-169), the decreasing effectiveness of product experiments and the general feeling that product development should be more productive are symptoms when developer should consider a pivot. The decision to pivot is very difficult and many companies fail to do it. Both the developers and the business leadership teams should participate in the decision-making meeting. (Ries 2011, 164-169.) Sometimes pivot is a dramatic decision. Pendolin et al. (2013, 114) agreed to enjoin the concrete and systematically monitored metrics to support decision-making. There are several basic types of pivots, which will focus on the product characteristics, customer focus groups, or the value of the product distribution channels. (Pendolin et al 2013, 114.)

Ries (2011, 178) stresses that a pivot is not just a change; it is a special kind of structured change which is designed to test a new hypothesis about the product, business model, and engine of growth. A pivot is crucial part of the lean startup approach. It enables the agility to find another path if the company takes a wrong turn. (Ries 2011, 178.)

3.9   Minimum viable product

The simplest viable product (Minimum Viable Product, MVP) is an internationally well-known concept, in which the idea is to first build a product or service that covers the customer's minimum need. Its purpose is to get the product value proposition tested to the smallest possible amount of work, and to see whether customers would be willing to pay for the product or service. (Pendolin et al. 2013, 52.)

As Maurya (2012, 8) writes that *"Minimum viable product is the minimum set of features which address the right set of problems"*. According to Blank (2013), lean startups define minimum viable product as what is that they need to start their business. After that they can start their business and develop their product or business. It is important to know what is it that the company is doing and from where it can continue its business development. If the development cycle is too long, the customers' needs will be totally different when they get the new feature or product into production. (Blank 2013.)

Ries (2011, 93) notes that a minimum viable product will help the developers to start the learning as fast as possible. He continues that with the MVP they can go through the build-measure-learn feedback loop with the minimum amount of effort and it does not necessarily mean that it is the smallest product you can imagine. Contrary to traditional product development, the goal of the MVP is to begin the process of learning, not to end it. In traditional product development, testing is usually done in the end after a long incubation period. At the end of the day, MVP's goal is to test fundamental business hypotheses. (Ries 2011, 93.)

Pendolin et al. (2013, 53) write that determination of MVP's is extremely difficult, especially in established companies. It is important to realize that the role of the MVP's is to test the market: whether the product is a desirable, whether the price is right, and whether the right customer segment is found. According to them, the value proposition should communicate clearly and answer to the questions: what, why, who, what purpose and how it differs from the competition. (Pendolin et al. 2013, 53.)

According to Ries (2011, 97), to learn what is enough for a minimum viable product can be tested with simple smoke tests. Developers can put their prototype out there for the early adopters and see for example how many customers would take it into use with those features that it has. The learning of the MVP is that any additional work beyond that was required to start learning is waste. (Ries 2011, 97.)

Many modern business and engineering philosophies focus on creating high-quality experiences for customers as a primary principle. That is the foundation of Six Sigma, lean manufacturing, design thinking, extreme programming and the software craftsmanship movement. Modern production processes trust in high quality as a way to be more efficient and that means that the company should focus only on producing outcomes that the customer perceives as valuable. This assumes that the company already knows what attributes of the product the customer perceives as worthwhile. But often startups are not even sure who the customer is, and as Ries (2011, 107) comments, *"If don't know who the customer is, we do not know what quality is"*. (Ries 2011, 107.)

Sometimes MVPs can be perceived as low-quality by the customers, but this can be seen as a learning opportunity to learn what attributes customers care about. This is better than only speculation, because it provides an empirical foundation on which to build future products. Sometimes customers can also react differently and they can fall in love with the low-quality state of the product. (Ries 2011, 107.)

Another important issue is the companies' worries related to MVPs. Ries (2011, 111) states that there are always risks when a startup is building the MVP, both real and imagined. The most common issues are legal issues, fears about the competitors, branding risks, and the impact on morale. If startups rely on patent protection, there can be challenges for them with releasing an early adopter product. In addition to legal risks, the most common objection is fear of competitors, especially that a large established company steals a startup's ideas. Ries (2011, 111) however argues that it is not the biggest threat to startups and sooner or later a successful startup will face competition from fast followers. The only way to solve this is to learn faster than others. (Ries 2011, 111.)

3.10   Innovation accounting

According to Ries (2011, 20), the lean startup requests people to start measuring their productivity differently. Startups often accidentally build something no one wants and it does not matter much if they did it on time and within the budget. The target of a startup is to find the right thing to build, find out what the customers want and will pay for, as fast as possible. Lean startup is the new way of looking at the development of innovative new products that reinforce fast iteration and customer insight, a huge vision, and great ambition, all at the same time. (Ries 2011, 20.)

Ries (2011, 113) writes that innovation accounting is an alternative system to traditional accounting. He continues that it is a disciplined, systematic approach for figuring out if we are making progress and discovering if we are achieving validated learning. Innovation accounting works in three steps. The first step is to establish the baseline by using the minimum viable product to establish real data on where the company is at the moment. This can be done for example with one MVP, the complete prototype of its product and offering to sell it to real customers through its main marketing channel. This test would test most of the assumptions and establish baseline metrics for each assumption. Another way is to test each assumption separately, create own MVPs for them and get feedback on one assumption at a time. Company can perform a smoke test before building a prototype with its marketing materials. With this customers have the opportunity to preorder a product that has not yet been built. This smoke test measures only whether or not customers would be interested to try the product. It can be still be useful before committing more money and resources on the project. (Ries 2011, 117-118.)

Ries (2011, 119) describes that these MVPs are the first example of a learning milestone. MVP enables a startup to fill in real baseline data in its growth model and it is a valuable foundation for learning about customers and their reactions to a product. If only one or few

assumptions are decided to be tested, it is reasonable to test the most risky assumption first. (Ries 2011, 119.)

The second learning milestone is the tuning of the engine. At this point, the startup should improve one of the drivers of its growth model with every action they are doing. Startups must attempt to tune the engine from the baseline towards the ideal. This means lots of micro changes and product optimizations towards the ideal until the company reaches a decision point. To demonstrate validated learning, changes should improve the activation rate of the new customers. If not, it should be judged as a failure. One very important rule is that a good design is one that changes customer behaviour for the better. The third step is the decision point: pivot or perseverance. If we are not able to move the drivers of our business model, we are not making progress and that is a sign that it is time to pivot. (Ries 2011, 119-120.)

3.11   Small batches

Lean manufacturers discovered the benefits of small batches long time ago. Innovators such as Taiichi Ohno, Shigeo Shingo and others found the way to succeed by using small batches. Toyota produced a wide variety of parts in small batches with smaller general-purpose machines instead of buying large specialized machines that could produce thousands of parts. This needed figuring out how they could reconfigure every machine rapidly to make the right part at the right time. To be able to produce entire automobiles by using small batches, they focused on this change over time. (Ries 2011, 186.)

According to Ries (2011, 186-187), this change was not easy, because in any lean transformation, existing systems and tools often need to be reinvented to support work in smaller batches. To enable this, Shigeo Shingo created the concept of SMED which means Single-Minute Exchange of Die. He was able to minimize changeover times from hours to less than ten minutes, not just by asking workers to work faster, but by remaining and restructuring the work that needed to be done. Every investment in better tools and process corresponded with the benefit of shrinking the batch size of work. (Ries 2011, 186-187.)

Ries (2011, 187) points out that Toyota was able to produce a much bigger diversity of products because of its smaller batch sizes. Eventually it became the world's largest automaker in 2008. The biggest advantage of working in small batches is to be able to recognize quality problems much earlier than before. Toyota uses also this famous andon cord, which allows any worker to ask for help as soon as they discover any problem and stopping the whole production line if it cannot be fixed immediately. Benefits of this fast

finding and fixing of problems outweighs its costs and it has enabled Toyota to get high quality ratings and low costs. (Ries 2011, 187.)

Use of small batches made Toyota's factories more efficient, but lean startup's goal is not to produce more stuff efficiently. The goal is to learn how to build a sustainable business as soon as possible. The theory which is the foundation of Toyota's success can be used to improve the speed at which startups find validated learning. The ability to learn faster than competitors is an essential competitive advantage. (Ries 2011, 188, 192.)

3.12   Work-in-progress inventory (WIP)

Ries (2011, 200) writes that in traditional mass production, companies avoid stock outs by keeping a large inventory of spares. They want to make sure that they will always have the part or product that the customer wants and with bigger inventories they try to ensure that. Of course, this can be quite expensive because those products need to be transported, stored, and tracked. (Ries 2011, 200.)

In lean manufacturing this problem is solved with a technique called pull. This means that every time one product is sold, it creates a hole in the inventory and that automatically causes a signal to the factory that they need to produce a new product. The ideal goal is to achieve small batches along the whole supply chain. Each step pulls the products from the previous step and this is Toyota's just-in-time production method. If a company switches to this kind of production, its inventory immediately shrinks. (Ries 2011, 200.)

Ries (2011, 201) points out that startups have difficulties to see their work-in-progress inventory (WIP), because most startup work is intangible. For them incomplete designs, not validated assumptions, and most business plans are works-in-progress. In manufacturing, pull is used to answer to the customers' demand for that they would not overproduce. In lean startup approach this is not quite the same issue. Normally, customers do not know what they want and that is why it cannot mean that lean startups would only make what their customers want. The goal is to run experiments that will help the company learn to build a sustainable business. (Ries 2011, 201.)

As Ries (2011, 201-202) writes, the development team should design and run experiments as soon as they have formulated a hypothesis they want to test. This should be done in the smallest batch size that the work can be done and as quickly as possible. Even though activities happen in feedback loop in the order 'build-measure-learn', in planning it works in a reverse order. First, the team needs to figure out what they need to learn and then work backwards to see what product will work as an experiment to get that learning. In lean

startup it is the hypothesis about the customer that pulls work from development and other functions, and any other work is waste. (Ries 2011, 201-202.)

3.13   Agile methods

According to Blank (2013), to make this continuous development, lean startups use agile methods. Agile development gives startups an opportunity to get feedback from the customers very fast. Agile methods eliminate wasted time and resources when developing is done iteratively and incrementally. (Blank 2013.)

Blank (2013) writes that first you define your minimum viable product for the cycle and after every development cycle you get the completed product for customers and they can give feedback instantly. Then lean startups will know if they doing right things for their customers or if they need to make some changes. It gives time to do a product or service better every time and response quickly to the changing environment. Developing with agile methods will reduce waste of the product and shorten the development process. In that way it is more efficient and it actually decreases fails, because they will come out earlier and you can fix them right away. (Blank 2013.)

Software industry uses agile methods such as Scrum. According to Pendolin et al. (2013, 38), agile methods have shown their strength in a rapidly changing world, but even that cannot unconditionally be used in every place. There is not an equally suitable model for all the development processes. Instead, lean principles can be applied to every product development process in a variety of industries.

3.14   Business model canvas

Osterwalder & Pigneur (2010, 12) define business model in the following way: " *business model describes the rationale of how an organization creates, delivers, and captures value".* In their opinion business model can be described through nine building blocks that show the logic of how a company intends to make money. Those blocks cover the four main areas of business which are customers, offer, infrastructure and financial viability. It is like a blueprint for a strategy to be implemented. Those nine building blocks (Figure 12) are customer segments, value proposition, channels, customer relationships, revenue streams, key resources, key activities, key partnerships and cost structure. (Osterwalder et al. 2010, 15.)
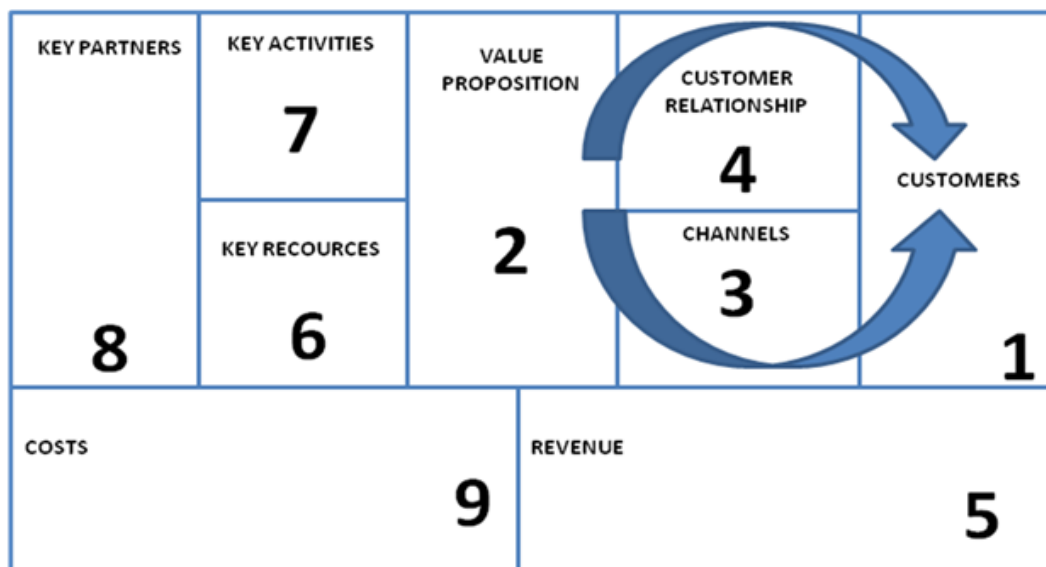
Figure 12 : Business model canvas adapted from the picture by Osterwalder & Pigneur (2010)

Pendolin et al. (2013, 26) prompted to fulfil the template shortly and compactly enough. According to them, the most important thing is to consider a solution to the customer's point of view: what is the main customer group, how it is passed to the customer and who else is needed for this.

Stickdorn et al. (2013, 212) state that a business model canvas is a tool to describe, analyse and design business models. Canvas can be filled in collaboratively and it can be used in almost every sector. The key benefit of business model canvas is that it can bring clarity to an organization's core targets and with that, it can identify its strengths, weaknesses and priorities. (Stickdorn et al. 2013, 204.)

3.15   Lean canvas

In addition to business model canvas there is lean canvas. According to Pendolin et al. (2013, 61), the business model canvas is more popular, and it can be better to describe the existing company's business model, while the Maurya's lean canvas model focuses on the early stages of the company and its product to solve the problem and create a competitive advantage for shooting.

Maurya (201, 23) writes that the lean canvas is the perfect format for brainstorming possible business models, prioritizing where to start and tracking the ongoing learning. Lean canvas is the business model in one page and it is adapted from the business model canvas with 9 sections. The template of the lean canvas (Figure 13) illustrates the first steps that you should take. (Maurya 2012, 23.)

PROBLEMS Top 3 problems 1	SOLUTION Top 3 features 3	UNIQUE VALUE PROPOSITION Single, clear, compelling message that states why you are different and worth buying 2	UNFAIR ADVANTAGE Cant't be easily copied or bought 7	CUSTOMER SEGMENTS Target customers 1
	KEY METRICS Key activities you measure 6		CHANNELS Path to customers 4	
COST STRUCTURE Customer Acquisition Costs Distribution Costs Hosting People, etc. 5			REVENUE STREAMS Revenue model Life Time Value Revenue Gross margin 5	

Figure 13: Lean canvas adapted from the picture by Maurya (2012)

According to Maurya (2012, 24), the creation of lean canvas starts from brainstorming over who the possible customers are. Product or service can have multiple user roles and it is important to identify the customers. User does not pay for the product, but the customer does. Broad customer segments need to be split into smaller segments, because you cannot effectively build, design and position a product for everyone. Maurya (2012, 24) recommends that you should put every segment into the same canvas at first and split those later if needed. Putting all in the same canvas might be necessary to outline different problems, channels and value propositions for each side of the market. He also recommends starting with the top two or three customer segments which you feel you understand the best or find more promising. (Maurya 2012, 23-24.)

Maurya (2012, 26) states that the canvas template should be sketched quickly, in less than 15 minutes. Its meaning is to be snapshot of what is in your head at the moment and then move on to identifying what is riskiest and then go out of the building to test the model with other people. If you do not know what to put in some section, it can be left empty, because the canvas is meant to evolve with time. (Maurya 2012, 26.)

Filling the canvas starts from describing the top three problems customers need solved and listing the existing alternatives. After that you identify other user roles that will interact with the customer and possible early adopters for your product. The objective is to define an early adopter, not a mainstream customer. (Maurya 2012, 27-28.) Pendolin et al. (2013, 26) also

prompt to move for the customer, because if the planned customer segment and the operating environment needs new products quickly, this finding affects other activities.

Maurya (2012, 29-31) writes that unique value proposition is the next to be described in the canvas and that is the most important to define. In unique value proposition you describe the essence of the product in a few words. It tells what is different about your product or service to derive your unique value proposition directly from the number-one problem you are solving. A good unique value proposition answers to the two questions, which are: what is your product and who is your customer? (Maurya 2012, 29-31.)

The next section to be filled up is the solution where you sketch out the thing you could build to address each problem. After that you think what kind of channels you need to have to get in front of the potential customers. The bottom boxes on the canvas are revenue streams and the cost structure. In those you define what you will charge from the customer and what kind of costs you will have. Then you have to define the key metrics where you define the key activities that you are measuring in order to know how well your product is performing. (Maurya 2012, 32-36.)

Maurya (2012, 42-43) points out that the last section is the unfair advantage which is usually the hardest section to fill up. Here you put your unfair advantage which cannot be easily copied or bought. The section is intended to make your product different and make your difference matter. (Maurya 2012, 42-43.)

4   Empirical study

To increase our understanding and to support our explored theory, we did two separate interviews with experts from the field who have their own experiences about our topic. Interviews were conducted as open theme interviews. Themes for the interviews were lean startup approach inside a large company, changing corporate culture, lean service design and customer development. We had one group interview and one individual interview. These interviews gave us important insights into the importance of corporate culture and co-operation with customers.

The group interview was done with Ola Sundell and his colleague from Hub Helsinki. We interviewed them about the lean startup approach generally and how it could be conducted in the organizations. Ola Sundell is the leading lean startup expert in Finland and he coaches startups and development teams to adopt lean innovation in accordance with the way of thinking and operating models. His colleague wished to be anonymous.

Individual interview was done with Karri-Pekka Laakso from Finnish software house Reaktor to get insights from the lean service design and find out how take customers into the development process. Karri-Pekka has extensive experience in user-driven development and lean service design. He also gave his insights on how an organization can benefit from lean startup methods in its business. Karri-Pekka's ideas are presented next.

We recorded both interviews and we took notes. Records were written down and then we analysed the interviews by going through what were the most important things related to our themes. Findings from the interviews are presented in the following chapters.

4.1   Lean startup approach and changing the corporate culture

There is a need to do something in companies because the focus in business area is changing, and they will not make the grade any longer with the current model. It would be good to have a so-called acceleration program in organizations in advance, not when forced. The opportune moment to the formation of a new corporate culture would be when company is in a stable situation, not when it has to act under duress.

Corporate culture needs to be built for the program and important on starting is to ensure it does not immediately originally wither or die out. People do not straight away get excited about new things. That is why it would be important to think about how new things and changes are going forward. Start of the change should come up from the "small granules." One idea is to create a model of change. It would be good to explore a variety of established models for carrying out the development, comparing them to each other, linking to the necessary extent and justify on the basis of them a suitable model for the company. Change always brings a negative attitude and it might personify easily. When changing the culture in an organization, it is important to tell people about the changes, what is happening and why. Otherwise it may be difficult to get people to commit to the change.

Intrapreneurship is the spirit of enterprise inside the organization. All proceeds from the fact that the management and employees understand what the intrapreneurship is, and it does not refer to the spirit of enterprise in the traditional sense. People do not understand what entrepreneurship truly means, and the entrepreneurship is becoming a profession in which entrepreneurs operate within the organization. Operational conditions should be given for intrapreneurship, because without that it causes problems or sanctions. The employees who drive things forward can easily meet the resistance or rejection by others if it is contrary to the corporate culture. The formation of corporate culture will always need the management's support. It starts from the top and then comes down. Without the management's support, corporate culture and issues remain on experimental level and things do not change

permanently. Freedom is a good thing to a certain extent, but the intrapreneurship and its promotion within the company require the ironclad management. There are examples of a few companies such as Google and M 3, which have the full freedom to innovate.

Intrapreneurship is like a self-directed and existing team and something that the team can do. The idea of work as a team is based on the fact that the team consists of strong and responsible people and furious a "workhorse" that will take things forward, for example a hockey team. We can talk about the instrument cluster where control and freedom are the extremes of the instrument panel, and instrumentation can adjust. Behind success, there is a strong entrepreneurial process.

Management has to determine what intrapreneurship means in their organization. Therefore, the problem is that the intrapreneurship does not specify, and there will be deficits in leadership, or it is a responsibility without power. For that reason, intrapreneurship has to be clearly defined by the organization. Everyone has their own opinion about entrepreneurship. Others can define it as psychology and others as economics. The management of an organization is defining it often with economics.

Lean startup shows the way to act and go forward. The ideas tend to remain to a point when they will be taken into production. There is no continuum if there is no intrapreneur or owner to implement those. Lean startup should be more like a learning process than a business development process. Continuation of the internal work as part of the process of change is important. Lean startup defines internal and external entrepreneurship, and there are a lot of invented matters around these terms that can be explained with lean startup. The division of internal and external entrepreneurship is old-fashioned, and these definitions are no longer needed. Intrapreneurs are looking for ways to implement the given strategies. Lean startup can help employees understand the strategy and discuss. Once the strategy is taken into practice, the company can learn how it works, and if necessary, it can still be updated into the right direction. Lean startup can help to understand that the strategy is an assumption.

4.2   Lean service design

Lean startup is a new approach for many organizations. Many companies are often developing their processes through the waterfall model. Using the lean model might causes some explosions, because it differs from the accustomed waterfall model. One reason for this may be that the new operating model might scare them. It breaks the so-called basic building blocks in an organization when you do things in a different way than before. Speed is an advantage of the lean model. There is a difference from the old accustomed manner which goes into production when everything has already been done. The purpose of lean model is to

get something into production as soon as possible and take the client to join the development process from the start. In the traditional waterfall model, the aim is to get all the items into production before they are displayed to the client. Lean model is more like co-operation: testing, developing and changing things in practice and together with the client. Process lives in the light of user experiences and observations and co-operation with the client. By using the lean startup approach, the company can make something useful with less work.

The challenge in using the lean model is how to obtain the first version quickly. It is important to get the service e.g. software to the condition where the first version already serves the users and helps them concretize what they are doing. More time should be spent on careful planning at the beginning of the development. After that, the development cycles can be exported forward very fast.

Clients can often tell us what they want, and there is the possibility to seize the opportunity. It is important to discuss with them and make sure they have understood the matter right because the best solution may be something else than they were thinking. It is important to get an understanding of what the client needs and whether the invention resolves the problems.

Clients involved in the project often soothe when they see something concrete. After that, it is easier to review what is working and what needs to be changed and modified to reflect the client's wishes and needs. It is a good thing that the feedback can be obtained directly from them. In the business-to-business environment, clients do not necessarily know what their customers want to have. In that case, it would be important to hear also the clients' customers. Then the client must also be ready to hear matters that it would not necessarily like to hear. Pleasing all customers is difficult. It is important to consider whether the problem solved will be worthwhile. It is important to look at things from the outside and learn about yourself too.

Clients can be afraid that they make overpromises to their potential customers if the new features are tested in co-operation with them. Fear is not in vain. To get end customers to participate also creates expectations that cannot always be met within the framework of the project, because some other things are prioritized ahead of them, the money runs out, etc. For some reason, the clients are afraid of that point and just the right thing, but a little bit for the wrong reason. They might be afraid that the service designer or the user interface designer explicitly promises the functions of future or some things to occur. Items have to be talked about as they are, nothing should be promised for sure but in the following way: such is planning; I cannot promise that this will be happening but we have thought that this could be done. Despite the expectations of past downplaying, the commitment of the users is

important because users will create expectations. Users get the sense that a change of service or a new user interface should be realizing something.

It is also important to build metrics to measure how the development project has succeeded. Metrics should be found and always built in co-operation with the customer. First of all there has to be a theory of what we want to see and what the world will look like when customers get access to e.g. new software. Thinking of metrics has to be considered from several viewpoints. Only the right things should be measured. Euros can measure success indirectly, and clients often want to measure the time of something. Measurement of time is challenging because it is influencing many things in the organization. Any little and minor thing can influence that something takes less time than before. For example, if the water cooler of department is moved closer to employees, it can bring time savings. There are some specific things which can be measured in the system operation. For example, the time of customer event can be measured and calculated according to savings.

5 Lean startup innovation program for organizations

For a practical way to introduce the lean startup approach for the organizations, we created the Lean startup innovation program. The program is an internal program which introduces a new approach for the organization and at the same time it offers a place for innovations. We see that the program is a sandbox for innovation where the organization can start learning to apply the lean startup approach. At the same time the program aims to teach the organization to innovate and develop new services and concepts in a fast, efficient and reasonable way. It introduces a new mind-set and it is a tool to become more innovative and customer-focused with the lean startup approach. The customer is in the centre of the program.

5.1 Purpose

Besides learning a new approach, the Lean startup innovation program can be used for creating new innovative services or business concepts or renewing existing services. The aim is to encourage employees to be more innovative and give space for their ideas to grow from ideas to real products and services. The program encourages employees to work with intrapreneurial spirit and in that way give opportunities both for the organization and for the employees. We think that in the ideal situation this program can be used for learning and to create new business ideas.

In practise the program introduces the main principles of the lean startup approach together with the service design process and methods. Participants will learn these things through

workshops, homework and self-studies. Besides what the participants will learn, also the whole organization can learn by involving them to be an active part of the program while it is running.

5.2 Process for the project to organize the Lean startup innovation program

The whole process for the project to organize the Lean startup innovation program includes 6 steps and they are presented in figure 14.
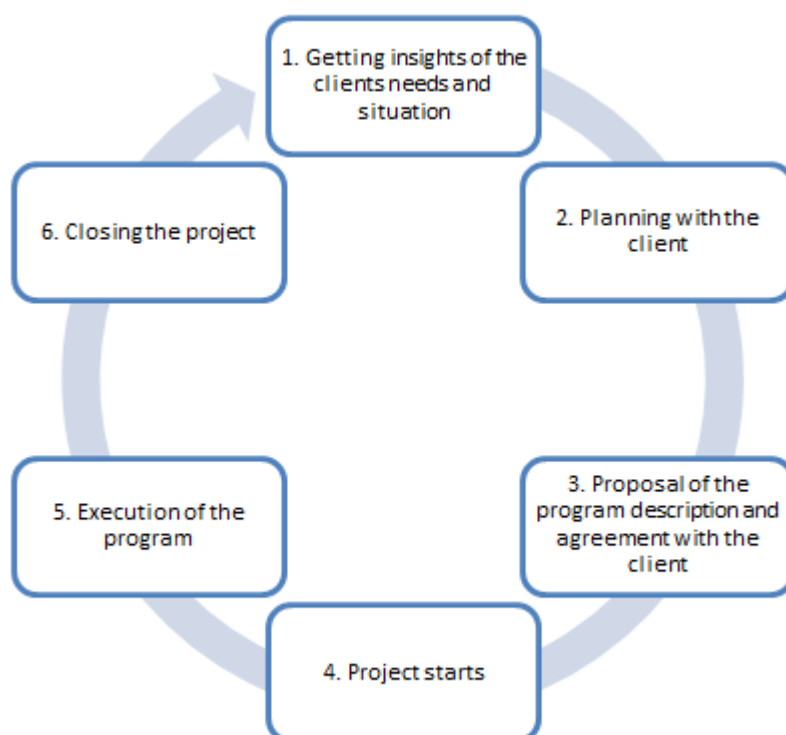

Figure 14: Process for the project

Step 1 aims to get an understanding of the client's interests, needs and readiness for the Lean startup innovation program. The target is to get deep insight into the client organization with several questions. The objective for the first meeting with the client is to agree about the next meeting. Step 2 is planning with the organization. In the second meeting the aim is to go through the client's requirements for the Lean startup innovation program. The requirements include the client's focus, focus group, boundaries, resources, schedule and budget. The target is to understand and define the client's goal and objectives for the program. Objective for this step is to agree on requirements to be able to create the proposal of the program for the client. The next step is to give a proposal of the program description for the client which is made based on the requirements. The proposal includes a structure for the program, topics

to be taught and what outputs will be created along the program. The proposal also includes the price and conditions for the Lean startup innovation program. The objective for step 3 is to get an agreement for the proposal and agree on the next steps.

The actual project starts from step 4 with fact-finding about the client's starting point for this program. This includes ethnographic studies like interviews and observations and a possible workshop with the stakeholders. The aim is to find out what kind of tools, facilities and resources the client has and how those can be used in the program. After that it is time for the execution. The execution of the program is always modified for each client depending on their conditions.

The last step is closing the project. After execution it is time to go through the whole project and the client will get the final report. Evaluation of how the program succeeded is presented together with the lessons learned meeting, analysis of the results, feedback, and the possible future steps. The aim is to present a comprehensive overview of the project and agree on the next implementation.

5.3   Resources needed from the client

The client decides how many participants are selected for the program and how, as well as who they are. Our suggestion is that they would be from different functions, like Ries suggested when we want to create a sandbox for innovation. We recommend having at least 20 participants in four teams, but the program can be made with less or more participants. The ideal situation to make a bigger change so that everyone from the organization could apply for the program and the participants would be selected from different functions and with different backgrounds. We see that in that way we could be sure that they are motivated to take part in the program.

Other needed resources from the client are interviewees for the start of the project, participants' time and effort, customers for testing (by customers we mean client's client or customer, depending on the given assignment for the program), commitment from the managers, tools for sharing and interaction, for example recording equipment, digital network, workspace, facilities, marketing and tools for workshops such as whiteboards, papers, pens, post-its etc. The needed resources are defined with the client.

5.4   Basic structure for the Lean startup innovation program

The basic structure of the program is the following and that is scalable according to the client's needs. The program starts with an introduction to the topic and after that

participants will start the real ideation with the organization's defined assignment. It is important that the goal of the program is clear for everyone. At the end of the day the aim is to learn how to create a sustainable business with the customers by using the lean startup approach.

The program consists of studying the lean startup approach, workshops, collaboration and sharing ideas. All of these actions support the co-creation and learning with the customers and other stakeholders. The client decides how many events the program will have, but we recommend that it should have at least four workshops. That is because then the program can follow easily Stickdorn's & Scheider's iterative service design process framework that we presented earlier in chapter 2.4. However, the program can be organized with fewer workshops if the client wants to have a shorter version of it. We have divided the program into four steps which is the basic structure (Figure 15) for the program and that is presented in the following chapters.
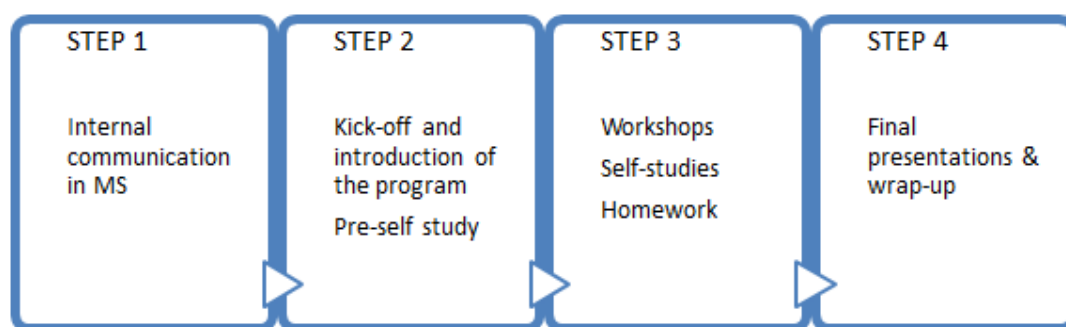
STEP 1	STEP 2	STEP 3	STEP 4
Internal communication in MS	Kick-off and introduction of the program Pre-self study	Workshops Self-studies Homework	Final presentations & wrap-up

Figure 15: Structure of the program

5.4.1   Internal communication in the organization

We recommend having internal communication about the program for the whole organization before the program starts. Its aim is to introduce the program and the topic for the employees and get participants to apply for it. If participants are selected by the organization beforehand, the aim is to introduce the program and the topic for the rest of the employees to get them be an active part for the program. Internal communication can be done for example by internal newsletter, company's intranet and emails from managers to their groups or teams.

5.4.2   Introduction to the program & pre-self-studies

The actual program starts with the kick-off meeting where the aim is to introduce the program structure and schedule, goals and assignment for the program and a short introduction to the lean startup approach and tasks for the first workshop. Possible pre-self-studies are presented in this kick-off meeting depending on the program structure. Those can be for example that the participants will do a background search before the first workshop, for example interviews, observation etc. The kick-off meeting can be targeted at the participants or everyone in the organization who are interested in the program.

5.4.3   Workshops, homework & self-studies

Participants start to work as a team in the workshops. The teams are formed with the people from the different functions to get them to share their knowledge from different perspectives and to get them make new connections at the same time. Workshops are planned according to the client's given resources. The agenda for the workshop is always unique and the goal for one workshop can be different depending on how many workshops will be included and how long those are. The idea is that in every workshop the team will develop and make changes to their ideas related to the assignment. After each workshop they share their output with the rest of the organization and with the customer, if possible, and ask for feedback from them. In that way they use the build-measure-learn feedback loop that we introduced in chapter 3.2 and work iteratively. Tests can be made in many different ways, but the main thing is that they go out of the building.

Homework's aim is to prepare the participants for the next workshop and those can include small tasks like finding insights, testing etc. Self-studies are videos and articles about the lean startup approach, service design methods and the process, and the aim is to give a deeper understanding of those for the participants. The purpose of self-studies purpose is to support the learning which is a crucial part of the program.

5.4.4   Final presentations

The last step is to give a final presentation to the group and decision-makers of the organization and the customer/s if that is possible. The aim is to sell the teams' ideas for further development and implementation. Teams can also give their presentation to other employees, and that is a good place to share also the learnings from the program.

Evaluation of the program is crucial when closing the project. Feedback from the client and participants is needed to be able to know how the program has succeeded and whether the

program met its targets. It is also important to go through lessons learned and make right corrections in the program if needed.

6   The Lean startup innovation program pilot

Purpose of the Lean startup innovation program pilot was to test the program in real life and to see how it would work in a large established company. Pilot was conducted in autumn 2014 in Nets Merchant Solutions Business Unit . In following chapters we present the baseline of Nets' and its Merchant Solutions Business Unit , plan for the implementation, execution of the pilot and the results of the program. In the end we present the feedback from the pilot company and analyse how the program works for introducing the lean startup approach for organizations.

6.1   Pilot company Nets

Nets is a Nordic provider of payments and card and information services in Europe. Nets' focus remains on new opportunities, technologies and security. Nets' customers are banks, businesses and merchants. The company operates in five countries; Finland, Sweden, Norway, Denmark and Estonia and it has altogether 2700 employees. About 500 of them work in Nets Oy at Helsinki. (Nets 2014.) Nets' business consists of five main business areas: Cards, Payment & Information Services, eSecurity, Merchant Solutions and Teller. (Nets Corporate presentation, 2013.)
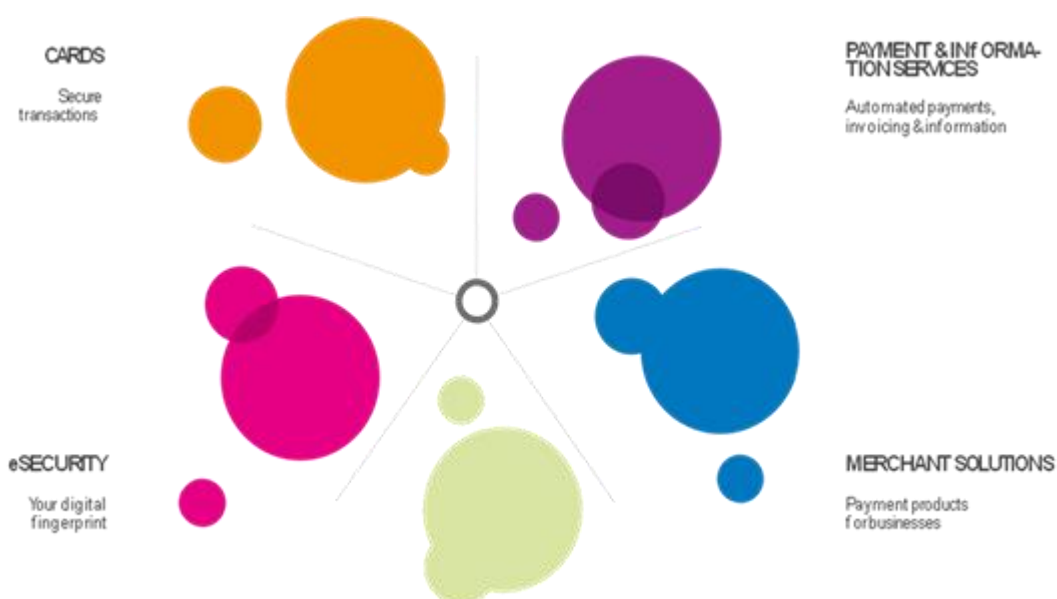

Figure 16: Nets business area (Nets Corporate presentation, 2013)

Like figure (16) shows, Nets´ business area is extensive and it is an essential partner for banks and businesses as well as for retailers and consumers. Nets' solutions make the handling of payment and information flow faster and the customers' life as easy and efficient as possible. Nets provides stable, user-friendly and secure payment and information systems that help companies improve the safety and services. For banks Nets provides management and processing services, and helps them improve their efficiency and reduce the costs associated with the cards and risks. (Nets 2014.)

6.1.1 The core competence

At the moment, Nets is the second largest card payment service provider in the Nordic countries. Nets' ambition is to grow in the years ahead in order to extend its global reach and thus increase the customers' options for using international payment services. (Nets Corporate presentation, 2013.)

In the Nordic market, Nets' strength is the local knowledge. Nets has insight on the local market conditions; legislation and trends in each country give them opportunities to develop the right products for its customers. That enables a quick way to adapt to customers' needs and demands too. Nets is able to look towards new markets and the growth of business. The strengthened organization and experience based in Nets will be used as a platform to continually seek to improve the conditions for both existing and new customers. (Nets 2014.)

6.1.2 The company's mission and strategy

Nets' strategy is all about becoming the best in class and to become a top 3 player in Europe specializing in managing digital values. Nets' aims to be a strategic supplier for its customers, founded on safe and stable operations. Nets also aims to be more customer-focused, and a more efficient and reliable partner for its customers. Nets' code how to do it is 'ACT'. That means being accountable, customer-driven and delivering results together. The long-term strategy of Nets focuses on innovation. (Nets Corporate presentation, 2013.) Those are the guiding lights of Nets' work. Nets' vision and mission are presented in figure (17).

Figure 17: Nets Vision & Mission (Nets Corporate presentation, 2013)

Nets' Vision is to create the future of digital values which are digital money, digital identity and digital information. Nets' mission is to enable a more efficient society and optimize its customers' business through digital values. (Nets Corporate presentation, 2013.)

6.1.3   The company's motives and conditions

Over the years, Nets has played a crucial role in developing and improving of new payment solutions in the Nordic region and the intention is to expand its operations in Europe. In order to maintain its market position, Nets have long-term perspective to develop new solutions for the benefit of their customers and for consumers, who are increasingly travelling and trading across national boundaries. Nets innovate with focus on the customer and invest in long-lasting innovative partnerships to define and implement strategic development that benefits both parties. (Nets 2013.)

Developing technology, digital channels and innovations are driven by an intense development of payments. At the moment, the majority of the payment innovations are focusing on e-payment and in addition new and more efficient instruments and methods that based, for example, Near Field Communication (NFC) technology which enables payment by mobile phone. (Nets 2014.)

Near field payments and mobile payments are both future trends and Nets is strongly involved in the development of new and innovative payment methods that facilitate people's everyday lives. The replacement of cash related strongly to near field/contactless payment that is one of the strongest trends affecting the payment when the purchases are of low value and the speed of cash operation has a big role. That also enhances the payment process. Mobile devices will shape consumer behaviour and user experience and in the future, the cards and smart phones with the contactless feature and mobile wallet applications become more familiar. (Nets 2014.)

6.1.4   Pilot business unit Merchant Solutions

Merchant Solutions offers a wide range of products and services for businesses that accept card payments. It offers payment terminals and payment solutions for online and mobile commerce, gift cards, loyalty cards and other value-added services that integrate with its customers' business processes. Merchant Solutions also have multi-channel solutions for optimised customer processes. Payment solutions are tailored to fit all types of businesses from small shops to national or Nordic chains. (Nets 2014.)

Merchant Solutions offer unique, tailor-made solutions for Nordic chains and other businesses considering the entire Nordic region as their home market. Nordic focus combined with local presence in Norway, Sweden, Denmark, Finland and Estonia enables Merchant Solutions to offer unified Nordic solutions while at the same time meeting the local needs of the chains. Merchant Solutions is continually developing new products and new functionalities that meet their customers'.

6.1.5   Baseline for the Lean startup innovation program in Merchant Solutions

For charting the current state, we met Mia Ursin from the Merchant Solutions. Ursin told us about the current status of the business unit and presented its operations, products and services. She told us that Merchant Solutions Business Unit has a desire to grow and to be sufficiently specialized and provide added value to customers. (Ursin, interview 10 March 2014.)

According to Ursin, development of digital services and solutions in the direction that they work together, play an important role. All services are related in some way to the merchant as how the payments are transmitted and reported, as well as how the merchant could be more attractive in the eyes of the customer. Merchant Solution's service offering includes a variety of payment terminals, contactless cards, distance selling services and value-added services. (Ursin, interview 10 March 2014.)

Customer needs are relatively well known, and Nets is perceived as a reliable partner. Customer satisfaction is important and for that reason Nets is constantly working on focusing on customer deliveries. Also, the compliance issues have a substantial impact on what and how the solutions can be implemented. All solutions must be approved and to ensure the strong safety of them. (Ursin, interview 10 March 2014.)

Merchant Solutions offers integrated services and that makes them commercial. It is important that the products of Nets are easy to use, reliable, safe and easy to integrate. Merchant Solutions also have value-added services that include, for example, prepaid cards, loyalty solutions and gift cards. These provide merchant with means to create targeted offerings and that way attract new customers or increase loyalty of his regular customers. (Ursin, interview 10 March 2014.)

Because the solutions are constantly changing, innovation is needed to ensure Nets' service offering remains competitive. Going forward the borders between payment methods will become more blended. Also, the roles of the different service providers will change and co-operation with different partners is required. Ursin sees that in the future customers want more personalized solutions and for that reason it is important to be able to modify the service offering according to customers' needs. The customer's payment experience can be seen as part of a wider purchase experience. As a result, customer's expectations should be considered and identified. The existing customer data should be used to offer the customers something they are willing to pay for and what will provide added value for them. (Ursin, interview 10 March 2014.)

Ursin pointed out that in order to maintain a competitive position, it is important to find the right partners with whom to co-operate and take the market forward. Developing services requires following the future trends of card and mobile payments as well as e-commerce. The role of big data can also be seen as a significant part of the future. Good question is how to be able to use all the existing data. At the moment it is not yet commonly used in the market, but that is likely to increase in the future. Sometimes a customer may also choose a supplier on the basis of with whom the supplier is co-operating. That adds to the need of partnerships and development of mutually compatible solutions (Ursin, interview 10 March 2014.)

6.2   Plan and execution of the Lean startup innovation program pilot

The Lean startup innovation program pilot was implemented in Nets Merchant Solutions business unit because innovation is seen as a crucial part of business development. With this pilot the business unit wanted to continue the good innovation work what had been done so

far in the business unit. Merchant Solutions goal for the pilot was to find a new way to continue the innovation work.

Before the pilot, we had many discussions about the requirements for the program with the Merchant Solutions' representatives. It is noteworthy that in execution of the program we tried to find a solution which would answer both our needs from the pilot perspective and the client's needs from their perspective.

In overall the whole project followed our previously introduced project process in chapter 5.2. The plan was made together with the client. It was very good for us that both, the idea and the plan were approved by the management of the pilot business unit and the program got their support from the beginning. In the end of the day, the management gave the resources and borders for the program.

The pilot was planned based on the basic structure of the Lean startup innovation program presented on chapter 5.4 and modified with the client's requirements. It was clear from the beginning that this was a pilot and the purpose was only to test how the program would work in real business environment. That is the reason why we did not make everything as we would have done in the ideal situation.

The program was planned to be five week long with internal communication, kick-off meeting and four workshops. Communication for the rest of the business unit was planned to be made with the internal newsletters, by news in the company's intranet and by sharing the ideas in the company's internal social network channel.

Because the business unit is Nordic, one of the company's requirements was that the pilot also needed a Nordic approach. For that reason they decided to have two teams for the pilot; one in Finland and one in Sweden. Participants for the teams were selected by the company and the program got two owners from the Merchant Solutions. It was decided that there would be three members in each team from different functions. Participants in team Sweden were chosen from sales, product development and agreement handling and in team Finland from pre and after sales, IT and support. Later the team Finland got new participant from the sales.

Because the teams were located in different countries, we agreed to organize two of the workshops virtually via video and two face-to-face in Sweden and in Finland in consecutive days. Experience and learnings of organizing virtual workshops was also important for the Merchant Solutions. To be able to organize workshops virtually, we agreed to have contact person for us in Sweden. The pilot was named as Innovation program for MS inside Nets.

The plan was that the teams would work with the Nets' defined assignment and develop their ideas in the workshops. Nets' internal social network channel was used for sharing and testing the ideas with rest of the Merchant Solutions' employees. That was also the place where rest of the business unit and the whole company could follow and contribute to the program. In the planning phase we also talked about getting real customers to give feedback for the teams in case it would be possible. It was also agreed that the teams would have homework and self-studies to learn more about the lean startup approach and the methods what would be used in the workshops. Plan included that in the last workshop both teams would create presentations what they would present after the program for the management team of the Merchant Solutions.

Planned schedule for the program:

Kick-off		25th of Sep
Workshop 1	Finding an idea	2nd of Sep in Finland, Virtual for Sweden
Workshop 2	MVP & Business model	8th of Sep in Sweden & 9th of Sep in Finland
Workshop 3	Prototyping	15th of Sep in Sweden & 16th of Sep in Finland
Workshop 4	Creating final presentations	23rd of Sep in Finland, Virtual for Sweden

In the following chapters we go through each step of the program with the feedback for the workshops from the participants.

6.2.1   Internal communication

Before the program started, we sent pre-information about the Innovation program for the selected participants. It included some basic information about the program and the schedule. Participants received also pre-material related to the assignment later on before the kick-off meeting. In this pilot there was no need for a bigger marketing of the program, because the participants did not need to apply for the program.

6.2.2   Kick-off meeting and internal newsletter

The actual program started with the kick-off meeting which was held in Finland and in which team Sweden participated via video. The aim of the meeting was to give a good overview for the participants of what they were going to do in this program and reveal the innovation assignment for them.

First we introduced ourselves and told some background information about why we are doing this program. We also told why we are doing it for Merchant solutions. Then we went through

practical things related to workshops, homework, self-studies and info letter. Info letter was an internal newsletter that summarized all the needed information for the participants. One important thing to go through was the internal social network channel and how the participants could find the right groups from there. We shortly opened up for them how they would use that along the program. We had already created three groups there for the internal discussions. One group was the main group of the program and that was the place where we had an opportunity to tell about the program for the whole Nets and especially for the people from the Merchant solutions. Then we created own groups for both of the teams and we named those 'team Finland' and 'team Sweden'. Those groups were places where teams could share their outputs from the workshops and ask others to give feedback to them.

After practical things, one of the owners of the program from Merchant Solutions told about the innovation assignment for the program. He first told some background information about the targeted services and products and then revealed the assignment. The assignment related to the company's new services and for that reason it is not public. That is why we are not able to tell details of the ideas in the following chapters when we present the execution of the workshops.

In the end of the kick-off we gave instructions for the homework and showed links for self-study materials. The first homework assignment was to get out of the building and look for opportunities related to the given innovation assignment. We asked participants to interview at least five people and do observation at the same time. We wished that they would take pictures and notes and bring all their findings to the first workshop. We also gave some tips on how to do interviews and they had more information about these techniques in the first info letter. Besides the homework, the info letter included the pre-study materials which were welcome words, more information about the assignment, theory about the lean startup approach and videos about the lean thinking and getting out of the building.

After kick-off meeting we sent info letters for the participants and activated the discussion in the Nets' internal social network channel by telling what is going to be the assignment and how the teams will start working with it. We also add some post there about the lean startup approach. After the kick-off session we got couple question regarding the homework from the participants and we tried to clear that task for everyone. Later on that week, we sent an innovation newsletter for the whole Merchant solutions business unit with the headline Innovation program for Nets MS. In that newsletter we told about the program, participants, schedule and the innovation assignment. Aim of that letter was to get people interested about the program and get them to participate in to discussions in internal social network channel. The same news was added at the same time into Nets' Intranet. Examples of used materials are presented in the figure (18).
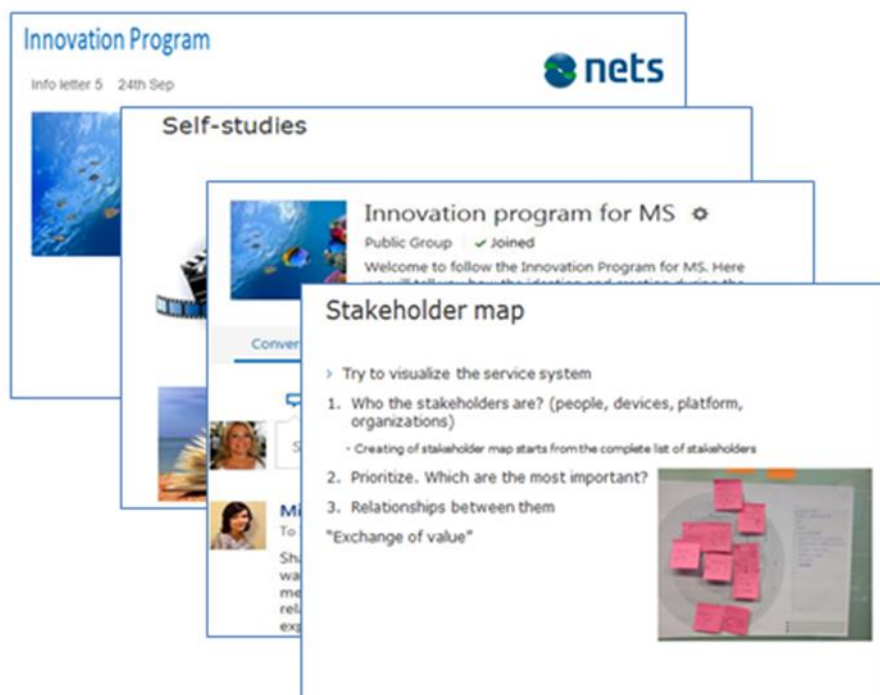
Figure 18: Examples of materials used in the pilot program

6.2.3   Workshop 1: Finding the idea

Before the first workshop we got information that not everyone from team Finland was able to participate in the workshop. Our contact person from the Merchant Solutions helped us a lot and organized a fill-in, but still we needed to make quick decisions when only one participant showed up in the workshop. Our decision was to postpone the first workshop for team Finland and work with team Sweden at that point.

The first workshop session was held around the exploration step from the service design process. Our goal for the workshop was to find the idea and focus for the teams to start work with. We chose the following methods to be used in the first workshop: mind-mapping the findings from the field study, brain writing in silence by taking turns and with pictures, selecting the most important ideas and prioritizing them with the bull eye method, making an advert of the idea and creating a name for it, and for the last method a customer journey map. We chose these methods because we wanted to first have lots of ideas and then find the focus from those. Mind-mapping is good for creating on overview of the findings because people need to talk when they are making it. Brain writing in silence allows everyone from the team to share their ideas and we wanted to add combining pictures and ideas to create even more ideas to the wall. With the bull eye method (Figure 19) advert and name for the idea, we aim to get the team to find their focus from the ideas.
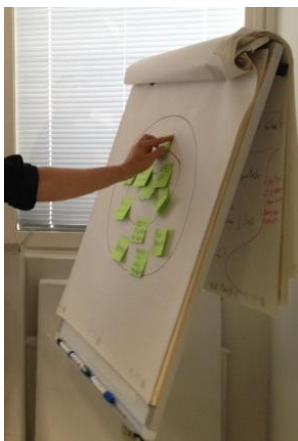
Figure 19: Bull eye method in use

With both teams, we started off by asking if they had done the self-studies and what kind of feelings and thoughts they had about the lean startup approach after reading the material. Then we moved on to the warm-up exercise and started to work with the planned methods. At the end of the workshop we went through the next steps and wrapped up the first session.

Facilitating the workshop virtually via video for team Sweden was a good experience, but it was quite difficult. We were still able to do every exercise with them, but we could not be present as we would have liked to. By that we mean that we were more like observers who gave only instructions rather than facilitators who helped the team to go forward with the ideas.

With team Sweden we first had a good conversation about the assignment and about the whole ideology of the lean startup approach. They saw the benefits of that, but the implementation for large companies evoked questions. The team was very good at creating ideas, and working with the methods was easy for them from our point of view. We learned that participants had not had time to explore the given homework and self-studies as well as we had planned. That made the time schedule a little bit slower than we had planned. Also we would have liked them to learn the basics of the lean startup approach before the program started, but due to lack of time on their part, we needed to discuss that in the workshop more than we had thought.

Workshop with team Finland was easier to facilitate when we were present and that enabled us to guide them more than team Sweden. This team needed more help to be on a higher level with their ideation. We think that was because they were strongly from the IT side of the organization. The team had some difficulties at making ideas within the given time limits and rules. Working with the problem and not going to the solution seemed to be hard for

them. Also working in silence was difficult. On the other hand, those were also something that they found interesting after the workshop. At the end of the day, both teams created the first sketches of their new service ideas.

Self-studies before the next workshop included theory and videos about minimum viable product, introduction to the business model canvas and more detailed directions for how to use the internal social network channel. For the homework they had to invite people to use the network channel and update their output from this workshop in there.

6.2.4 Teams' feedback after the first workshop

Altogether six people took part in the first workshop and received a feedback questionnaire after the first workshop. Five of them answered to the questionnaire (Attachment 1). The questionnaire included statements where we asked to indicate the level of agreement with the statements on a scale from 1 (Strongly disagree) to 5 (Strongly agree) and with three open questions which were 'what did you like most about this workshop?', 'what aspects of the workshop could be improved?' and 'how do you like the used service design methods?'. The overall average for the statements after the first workshop was 3,5. The statements and the agreement level are presented in figure (20).

	All respondents
	N=5
We would like to get feedback from you about the Innovation program, workshop and tasks. Please indicate your level of agree with the statements listed below in 1-5.	3,50
The objectives of the workshop were clearly defined	3,60
The topics of this workshop were relevant to me	3,00
The content was organized and easy to follow	4,00
The self-study materials for this workshop were useful	3,20
The service design methods used in this workshop will be useful in my work	3,00
The time allotted for the training was sufficient	4,20
Summary	3,50

| 1,00–1,79 | 1,80–2,59 | 2,60–3,39 | 3,40–4,19 | 4,20–5,00 |

Figure 20: Averages for the statements after the first workshop

According to the results, we did well with the organizing and allotting of time in the workshop. Also the objectives were quite clearly defined for the workshop. For the open question "What did you like most about this workshop?" respondents answered that the most liked things were active tasks and discussions within the team. They thought also that it was fun to see how differently they approached the task. Even though the guidelines for the outcome of this workshop were quite limited, they thought it was interesting to press the ideas ahead and manage to get objectives from the self-study materials into the outcome. In

real life there are often lots of practical obstacles that need to be mastered. Respondents felt that freeing their mind from obstacles and restrictions of current existing systems was also interesting.

Answers to question "What aspects of the workshop could be improved" related to the self-studies. Between the workshops participants had some self-studies and homework assignments, the idea of which was to prepare them for the next workshop. Unfortunately they did not have enough time for those and they would have liked to have more a comprehensive intro to the methods used in the workshop. Team Sweden gave feedback that a live workshop would be better than a workshop via video. They felt also that a bit bigger group would be beneficial, for example there could be 4-5 persons in the group.

For the question "How do you like the used service design methods?" one respondent answered that he/she felt that working silently was awkward and commented that talking and processing ideas out loud gets the engine running. By doing together it was easier to be involved and contribute to ideas without feeling that they were stealing others' ideas. Some of the participants felt that the service design methods were useful at an initial stage but far too superficial.

6.2.5   Workshop 2: MVP & Business Model Canvas

The second workshop was planned around step creation from the service design process. For the second workshop we decided to use the following service design methods: personas, stakeholder map and service blueprint on the basis of business model canvas. The idea was that these methods would be part of the business model canvas and that is one reason we chose those. We also think that those methods help the teams to better understand the customer and the whole environment around the service. With the business model canvas we aimed to create the first minimum viable products for the teams. This was a workshop where we wanted to go deeper and let the teams think about their ideas in more detail. At the beginning we also had time for discussion and for the warm-up exercise.

The second workshops were held on consecutive days for the teams. For these workshops we got a visitor from Norway who had given the assignment for the program. He was like a mentor for the teams and his presence at this time was very important. Both teams had the opportunity to present their ideas to him (Figure 21) and get crucial feedback. They were also able to ask questions related to the assignment and its scope which helped them prioritize things.
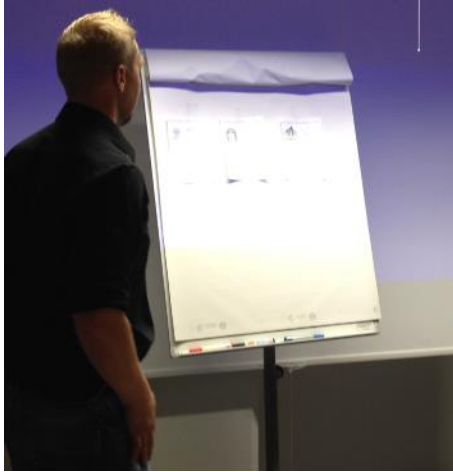
Figure 21: Presenting personas for the program owner

First we facilitated this workshop to team Sweden. The workshop was held in Stockholm face-to-face. We noticed very soon that it was easier when we were present. Again all participants had not had time to do self-studies. That was unfortunate, because that would have helped them to start working faster. However, based on the received feedback from the first workshop, we had decided to use more time on telling the background of the methods. In the beginning we had a very good discussion about the program and how Nets could use the lean startup approach in its daily work. We got the impression that the topic was interesting for them. Creating the personas and stakeholder map took more time than we had planned and we left out the service blueprint from the agenda. We did that because we thought that the business model canvas was more important at this point. Decision-making was harder than we expected and at the end of the day, the team was not able to finish their business model canvas completely. We chose to continue with that in our next workshop. Team Finland worked quite fast with the methods, but we decided to leave the service blueprint out as well in order to be able to keep the teams in the same situation.

Self-studies before the next workshop included theory of validated learning and prototyping and videos about rapid prototyping and paper prototyping. For the homework, teams needed to update their plans in the internal social network channel and ask for feedback for them.

6.2.6   Teams' feedback after the second workshop

After the second workshop, four participants out of six answered to the feedback questionnaire. Averages for the agree level for the statements are presented in figure (22).

	All respondents
	N=4
We would like to get feedback from you about the Innovation program, workshop and tasks. Please indicate your level of agree with the statements listed below in 1-5.	3,33
The objectives of the workshop were clearly defined	3,25
The topics of this workshop were relevant to me	3,00
The content was organized and easy to follow	3,50
The self-study materials for this workshop were useful	3,50
The service design methods used in this workshop will be useful in my work	2,50
The time allotted for the training was sufficient	4,25
Summary	3,33

| 1,00–1,79 | 1,80–2,59 | 2,60–3,39 | 3,40–4,19 | 4,20–5,00 |

Figure 22: Averages for the statements after the second workshop

The overall average of the statements after the second workshop was 3, 33. From the results we can make the conclusion that the respondents were satisfied again with the time allotting and how the workshop was organized. They felt that the self-study material was also useful. The average for the statement "The service design methods used in the workshop will be useful in my work" was low. We think that most of the participants did not see how they could use the Business model canvas in their daily work because they are not involved directly in the product or service development.

For the open question "What did you like most about this workshop?" respondents felt that it was important to get feedback for their idea from the Nets Merchant Solutions representative. The business model canvas felt difficult to fill when the idea was already quite clear in head. Respondents wished to get more background material and training for filling and using of business model canvas in the future. One comment for this question was that maybe the late afternoon was not best time of the day to think clearly about new things.

For the aspects what could be improved one respondent answered that it could be beneficial to have more time within the team. Some kind of reality check must be performed in a more thorough way to secure that the outcome is not purely theoretical. Based on the feedback, the most liked service design method was creating personas. One comment was that the methods were a bit more complex than in the previous workshop, and some of participants felt that the methods were very abstract.

6.2.7   Workshop 3: Prototyping

The third workshop agenda was created around step 'reflection' from the service design process. Methods for this workshop were desktop walkthrough with Lego serious play™ (Figure 23) and service prototypes made with paper and the POP APP mobile application. Besides

those, the teams needed to finish their business model canvases. We did not have any separate warm-up exercise this time, because we started with the Legos and we thought that it is a kind of warm-up in itself.

Figure 23: Creating desktop walkthrough with Legos

The third workshop was held for team Sweden first face-to-face in Stockholm. Because of the tight schedule, we started working right away after a small discussion about the collaboration and sharing knowledge and ideas inside Nets and how they thought it should be. We started the actual work with the desktop walkthrough with the Legos. That was a new method for participants, but they got the idea of the exercise quickly. We used timer for this exercise and the team was ready within the given time limit. Then we asked their colleagues for their audience and the team presented their story to them. The team got some feedback from the audience and they also asked a couple of questions from the audience.

Straight after the desktop walkthrough the team continued working with the business model canvas. Now we gave them approximately 30 minutes time to fill up the question marks. After the coffee break we introduced a couple of examples of mobile apps and paper prototypes of a web user interface. Then they created a prototype of a mobile app for the end-users of their service with the POP APP application. They tested the prototype first by themselves and then with their colleague. In the end of the workshop the team modified and went through the business model canvas once more. We did not have time to do the web interface and participants asked if they could do that in the next workshop in order to get a better picture of how their service would look like from other stakeholders' perspective.

Team Finland got one participant back to the group for this workshop and they had altogether four members. Because this participant had been absent in the last two workshops, the team

updated him in the beginning. We suggested that they would do that at the same time when they were creating the desktop walkthrough. There was a lot of talk about the issues, and from our point of view, this helped the team when they needed to rationalize their earlier decisions. The new member also brought new ideas for the team. He was quite familiar with the business model canvas, which enabled the team to finalize it. Team Finland had also an audience for the desktop walkthrough presentation and they made good comments and questions for the team. That was a very fruitful discussion. For the final task the team made the POP APP prototype and tested it with their colleague.

Self-studies after the third workshop included theory, video and slideshow about storytelling before the final workshop. For the homework, teams needed to take their business model canvas and prototype to the internal social network channel and ask for feedback and comments for those.

6.2.8 Teams' feedback after the third workshop

After the third workshop, five participants out of six answered to the feedback questionnaire. Averages of the agreement level for the statements are presented in figure (24).

	All respondents
	N=5
We would like to get feedback from you about the Innovation program, workshop and tasks. Please indicate your level of agree with the statements listed below in 1-5.	3,40
The objectives of the workshop were clearly defined	3,60
The topics of this workshop were relevant to me	3,60
The content was organized and easy to follow	3,60
The self-study materials for this workshop were useful	3,00
The service design methods used in this workshop will be useful in my work	2,60
The time allotted for the training was sufficient	4,00
Summary	3,40

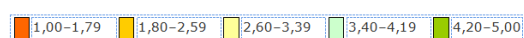| 1,00–1,79	1,80–2,59	2,60–3,39	3,40–4,19	4,20–5,00

Figure 24: Averages for the statements after the second workshop

The overall average for the statements after the third workshop was 3,40. Again, respondents were most satisfied with the time allotting, while the usefulness of used service design methods in their daily work got the lowest average score. We think that it strongly depended on which function the participant works in, because the agreement level varied in the individual questionnaires a lot, from 1 to 4. However, from the answers to open questions we can see that the used methods were also the most liked part of the workshop.

Because the Finnish team got a new member for their team, they thought it was also very nice to have a new person to think the idea through. In this workshop the teams also presented their idea to other Nets employees outside of this program and they felt that receiving feedback from people who have knowledge about the area of idea was a nice and interesting part of this workshop.

The aspects of the workshop which could be improved was making sure earlier stages in the method really have delivered the expected result in order to have a complete input. The most liked service design methods in this workshop were the desktop walkthrough with the Legos. Respondents felt that doing the mobile app with photos of A4 papers was also nice.

6.2.9   Workshop 4: Creating the final presentations

The last workshop was held in Finland, and team Sweden participated in it via video. At first we introduced our agenda for the workshop. Then we had a warm-up exercise. Team Sweden was missing one participant this time, and they had only two members in their team. The goal for the workshop was to create the final presentations and sales pitches of the new services. At the beginning the teams made web interfaces for their services as they wished. Both teams had two kinds of customers for their services: customers and end-users. The purpose of this exercise was to think their services more from the customers' view. After that the teams checked if there was anything that they wanted to add or modify in their business model canvases. Then we introduced the instructions for the final presentations. They were that the teams should create 10-minute presentations and they should use storytelling in those. We showed one real example and gave a couple of tips how to make it. They had almost one hour time to make the presentations.
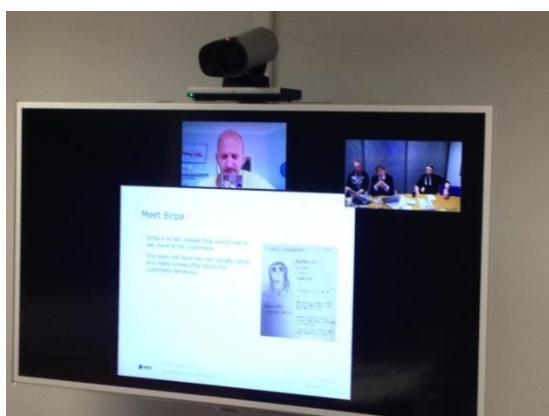

Figure 25: Audience for presentations by video

The final task in the workshop was to present the idea for the other team and the visitors who we had for audience. These visitors joined us via video from Norway and Sweden like presented in the figure (25). Both teams did a good job with the presentations, and again they got feedback from the audience. Our last part was wrapping up the entire program. Unfortunately we did not have very much time for the wrap-up and feedback because the presentations took more time than we had expected. We think that we still managed to end the program with good feelings. We told in the end that we would send a final feedback survey to the participants and would like everyone to answer it. On the next day we closed the program in the Nets internal social network and sent the survey to the participants. Process of the workshops and the methods we used are presented in the figure (26).

Workshop 1: **Finding the idea** • Goal was to find the idea for the team to start work with	Methods: • Mind mapping the findings from the field study (which was homework) • Brain writing in silence by turns and with pictures • Selecting the most important ideas and prioritize them with the bull eye method • Making an advert of the idea and creating name for it • Customer journey map
Workshop 2: **MVP & Business model** • Goal was to continue ideation with the idea and create MVP with the Business model canvas	Methods: • Personas • Stakeholder map • Business model canvas Visitor: Program owner

Workshop 3:
 Prototyping
• Goal was to make prototype of the service and to test it
	Methods:
	• Desktop walkthrough with Lego serious play™
	  • Testing with colleagues
	• Service prototypes made with POP APP mobile application (mobile app for users)
	  • Testing with colleagues
	• Finishing Business model canvas

Workshop 4: **Creating final presentations** • Goal was to create sale pitch for the management meeting and sell the idea for further development	Methods: • Prototypes made with paper (Web GUI) • Creating final presentations • Presentations for colleagues and program owner

Figure 26: Process and methods of Lean startup innovation pilot program

6.2.10 Team's feedback about the whole program

After the last workshop, all participants got the feedback questionnaire (Attachment 2) where we asked their opinions about the whole Innovation program. Altogether seven people took part in the program and four of them answered to the final questionnaire. In the questionnaire we asked participants to rate questions regarding the whole Innovation program including the kick-off meeting, workshops 1-4, self-studies and homework on a scale from 1(Poor) to 5 (Excellent). The questionnaire included also five open questions and two questions where they could choose their answer form the options. Questions for ratings and their averages are presented in the figure (27).

	All respondents
	N=4
Rate the following questions in regards of the whole innovation program in scale of 1-5. (Including: kick-off meeting, workshops 1-4, self-studies and homework).	3,75
Overall rate for the program	3,50
Practicality of program	3,75
Structure of program	4,00
Facilitators	4,25
Methods used in workshops	3,75
Contents of self-studies	3,25
Contents of workshops	3,75
Summary	3,75

| 1,00-1,79 | 1,80-2,59 | 2,60-3,39 | 3,40-4,19 | 4,20-5,00 |

Figure 27: Questions for ratings and averages after the whole program

The overall average for the questions was 3,75 and the overall rate for the program was 3,50. From the results we think that overall, we managed with the program well. Respondents gave the best average score for facilitators, structure and the practicality of the program. Content of self-studies got the lowest rate 3, 25, but that was still on a good level.

For the open question "What do you think about the lean startup approach and service design methods?" respondents found it interesting to try a new approach and to see how ideas started to come together in the workshops. They felt that the service design methods work well in getting a jump start in developing an idea and also helped in getting a better understanding of how to implement the idea.

The second question was "Would you like lean startup approach and service design methods to be used in Nets, and if you would, how would you implement those in daily work?" and some of the respondents were not certain how the methods could be used in their own daily work. At the same time the methods were seen as very helpful for the right people. For example for the Business units involved in product development the methods might add a new dimension and be a useful complement.

The most liked things about the innovation program were clearly the visualization tools for the question "What did you like most about the innovation program?" Respondents felt good about shutting down their computers and using old school drawing / writing methods. According to the feedback, the most challenging part was to find the time for workshops and self-studies. For the question " What aspects of the innovation program could be improved?" some respondents gave an improvement idea related to that and it was to allocate more time for the workshops, for example add 1 or 2 workshops more or have a team meeting between the workshops. Another improvement idea was to "train the trainers", so that all business

units/teams would have their own lean master on selected techniques in order to spread the knowledge.

In addition to the open question we had two questions with given options where to choose, and those were: "Would you recommend this kind of program for your colleagues as a way of innovation work and/or learning a new way of working?" and "Do you think Nets should have innovation programs in the future?" Options for both questions were yes and no and all respondents answered yes.

The last open question in the questionnaire was "Please share other comments here" and as expected, face-to-face workshops were more liked than virtual, where brainstorming together by using flip charts and other visualisation tools was more challenging. Feedback from other Nets employees outside of this program was considered very important. Respondents felt that new services which are good and innovative are very hard to come up with.

Afterwards we asked in a separate email whether or not the participants read all the info letters and how much time they spent on exploring the self-study material. For these questions we got four answers out of seven participants. The self-studies included five info letters with self-study materials. Three out of four respondents took the time for self-studies, approximately 1-2, 5 h per person, altogether 5 hours. One respondent did not have the time to go through the self-study material because of lack of time.

6.3   Closing the project; final presentations and lessons learned meeting

As we planned, the teams got after the actual Innovation program an opportunity to present their ideas to the Merchant Solutions management team. The idea was that besides the team presentations, we would present an overview of the Innovation program including how the process went and what methods we used. Presentations were given at a management team meeting which was held on the 6th of October in Sweden. The time was very limited and overall, the presentations took more time than expected. At the end of the day the Finland's presentation was decided to be postponed to later date. Overall, the management was interested in the program, our experiences and results. After this meeting we also agreed to organize a lessons learned meeting with the Merchant Solution representatives as soon as possible.

The lessons learned meeting was held in Finland on the 14th of October with the Merchant Solutions representatives who included the program owners and two management representatives. We made a separate lessons learned presentation of our experience and

learnings for the Merchant Solutions where we introduced how the project succeeded, what methods and tools we used, participants' feedback and our recommendations for how to continue with the program and the lean startup approach in the future.

One comment from one of the program owners was that the idea of Innovation program is good, but he did not see it continuing in exactly the same kind of program in the future. However, he saw the benefits of that in the future and that something similar could be used in Nets. Overall they saw lots of positive opportunities with this approach and service design methods to develop Merchant Solutions towards a customer-focused organisation.

They commented that from a business point of view, the methodology looked useful according to them. It could be applied, for example, as a tool for a task force to solve issues in services and improve customer experience. It could also be used in the development of new products and services, although in order for the results to be easily applicable, it could be useful to have the business owner closer to the teams and workshops.

In this meeting we also decided to close this program and send the final newsletter to the people in Merchant Solutions business unit and publish the same news in the Nets intranet. The newsletter was made together with a Merchant Solutions representative and it included both our view and the program owners' view on how the program went and its results. Team Finland's presentation for the management team was held on 24th of October. Management team liked their presentation and specially the chosen segment group for the new service concept.

6.4   Merchant Solution representatives' feedback and conclusions

After closing the Innovation program we asked open questions (Attachment 3) from the Merchant Solutions representatives to get their feedback and opinions. For the question "was the execution in line with your expectations? And if not, how it differed?", the answer was that the execution of the program was good considering this was the first time the approach and tools were used in this context, and they felt it also met the initial targets that were agreed. They saw when going forward the final ideas need to mature a little further, like potential business benefits needs to show more clearly in the final presentations. Business point of view innovation target is to lead to improvement and ideally to new or additional profit. The outcome and explanation why executing of the idea is good for the company should be from the commercial point of view and to tell what new or additional profit it can be expected to generate.

The second question was "Do you see any benefits of the program for Nets?" They saw that particularly the method of working in phases and using tools to visualise the idea was useful. The programs structure helped to focus on working and ensure progress while visualisation clearly helped in thinking process. Our third question was "how would you like to see lean startup approach and service design methods to be used in Nets?" Their opinion was that the service design methods seem good tools to use also going forward.

View for the future was interested in hearing about should they think to have similar innovation programs in the future? They saw that the innovation should become a permanent factor in the ways of working, and that can mean running innovation programs similar to this one or having innovation as an integral part of development processes.

We were also interested to hear how ready they see Nets is for co-creation with the customers that we see to be an important part of innovation work in the future. In their opinion willingness for increasing the transparency exists. When the co-creation with customers can begin organisation need to have a clear view on what is the aim to achieve with it, and how much is possible to share with the customers. They felt that it would need also more experience and confidence in using right methodologies and tools to facilitate that work. Our final question was related to our work as facilitators and how we managed in organizing the program. We were pleased to hear that they were satisfied, and for their opinion we did a good job.

6.5 Learnings from the pilot and recommendations for the Merchant Solutions

We were pleased to see the excitement and interest the innovation program raised. Lean startup approach and service design methods created discussion in Nets internal social network and also outside of the pilot business unit. That showed us that there is readiness and willingness to increase the knowledge of lean start up approach and service design in the organisation.

Mixing people from different functions was a very efficient way to share ideas and knowledge and to create new connections. New connections can create long term value, and from the service design point of view, we recommended them to continue work across the units and/or team boundaries. Use of the internal social network channel was new for almost all of the participants as well as for the other people in Merchant Solutions and rest of the Nets. The network was found to be an easy and functional tool for this purpose to see all the relevant comments and discussions.

Our recommendations for the Merchant Solutions for applying the new methodology and ways of working were that teams should have at least 4-5 people, they should have shorter workshops with a separate time for the teams to meet between the workshops, keep the assignment on a higher level if the aim is to create completely new ideas and involve customers to get direct feedback directly and enable co-creation in the future. These together enable the way to become a more customer-focused and innovative company in line with Nets' long-term strategy aims.

6.6   Analyses of the results

From our point of view, the pilot was successful. We got very good experience in how the Lean startup innovation program works in a real business environment in a large established company. Based on the feedback from the participants, it was an efficient way to introduce the new approach to the organization and it created awareness of the new approach in the company.

We learned that the program worked well overall, and participants were satisfied with the way it was executed. We also found that participants need to have time for the program and for the self-studies. The service design methods that we used during this program were considered very useful and those supported the learning. The transparency of the pilot program was found to be powerful in sharing the learnings with rest of the pilot business unit and the company.

7   Conclusions

Innovative corporate culture helps organizations answer to the challenges they are facing in the rapidly changing business environment. Innovative corporate culture forms from many different parts. Changing the existing established corporate culture does not happen in one night but it takes time and commitment from the whole organization. Management's support is crucial when the new way of working and the new mind-set are introduced.

In this study we have learned how lean startup companies can do things in a very agile, iterative, fast and efficient way while keeping their customer in a central role in their work at the same time. In that way they are able to create new innovative services and products and answer to rapidly changing challenges fast. For that reason we wanted to explore further if this approach could be useful also for different kinds of organizations to make their corporate culture more innovative.

For the practical way to see how it could work, we created the Lean startup innovation program which aimed to introduce the lean startup approach for the organization and to help them create new services in a fast and efficient way. Pilot of the program was successful and it gave us a good picture of how it could work in real companies. We see that it can be used in different kinds of organizations working in a variety of industries in the future. From the pilot we learned that before execution of the program, the planning phase has a crucial role. The program needs to fit in the organizations and have clear goal. The challenge is to have real commitment from the client for to be able to create real impact with the program to the corporate culture.

Based on the results from the Lean startup innovation program pilot, the lean startup approach allows companies to make their corporate culture more innovative. It helps them generate new services or products rapidly and efficiently and in that way increase their ability to answer to customers' changing needs faster. The lean startup approach helps to examine and modify the existing policies and develop services together with customers. It will also increase the company's internal expertise and produce new ways of work, which are needed more in the future. Use of the lean startup approach can also help to motivate and commit the employees by supporting intrapreneurship.

We see that the pilot of the Lean innovation program gave a good picture of the operation, and the concept of the program seemed to be an effective method to introduce the Lean Startup approach within the existing organization. The company carried out a pilot of the innovation program and saw how effective the program was for sharing knowledge and expertise across the business boundaries. They were impressed that the program would enable them to continue the innovation work they had done so far. The organization was interested in continuing the innovation work with this kind of program in the future. They felt they benefited a lot from this program and learned an efficient way of developing and a new way of thinking.

Based on results of our research, the feedback from the participants and the representative of the company, we see that the lean startup approach is an efficient way to introduce a new approach and new methods for an existing organization. It also helps the organization learn how to identify and evaluate new business opportunities, as well as to create a more innovative corporate culture. With the Lean startup innovation program the organization can meet the challenges in the future and create more value for customers. We think that the lean startup is the key to success in the future so let's Lean it out!

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Figures

Attachments

Attachment 1 Feedback questionnaire after first three workshops for the participants

Feedback questionnaire for participants in MS Innovation program

1. We would like to get feedback from you about the Innovation program, workshop and tasks. Please indicate your level of agree with the statements listed below in 1-5.

5=Strongly agree, 4=Agree, 3=Neutral, 2=Disagree, 1=Strongly disagree

	5	4	3	2	1
The objectives of the workshop were clearly defined	( )	( )	( )	( )	( )
The topics of this workshop were relevant to me	( )	( )	( )	( )	( )
The content was organized and easy to follow	( )	( )	( )	( )	( )
The self-study materials for this workshop were useful	( )	( )	( )	( )	( )
The service design methods used in this workshop will be useful in my work	( )	( )	( )	( )	( )
The time allotted for the training was sufficient	( )	( )	( )	( )	( )

2.
What did you like most about this workshop?
_____
_____
_____
_____

3.
What aspects of the workshop could be improved?

_____
_____
_____
_____

4. How do you like the used service design methods?

_____
_____
_____
_____

Attachment 2 Feedback questionnaire after whole program for the participants

Feedback questionnaire for participants in MS Innovation program (WS4)

1. Rate the following questions in regards of the whole innovation program in scale of 1-5. (Including: kick-off meeting, workshops 1-4, self-studies and homework).

1=poor, 2=fair, 3=good, 4=very good, 5=excellent

	1	2	3	4	5
Overall rate for the program	( )	( )	( )	( )	( )
Practicality of program	( )	( )	( )	( )	( )
Structure of program	( )	( )	( )	( )	( )
Facilitators	( )	( )	( )	( )	( )
Methods used in workshops	( )	( )	( )	( )	( )
Contents of self-studies	( )	( )	( )	( )	( )
Contents of workshops	( )	( )	( )	( )	( )

2. What do you think about lean startup approach and service design methods?
_____
_____
_____
_____

3. Would you like lean startup approach and service design methods to be used in Nets, and if you would, how would you implement those into daily work?
_____
_____
_____
_____

4. What did you like most about innovation program?
_____
_____
_____
_____

5. What aspects of the innovation program could be improved?
_____
_____
_____
_____

6. Would you recommend this kind of program for your colleagues as a way of innovation work and/or learning new way of working?

( ) Yes
( ) No

7. Do you think Nets should have innovation programs in the future?

( ) Yes
( ) No

8. Please share other comments here:
_____
_____
_____
_____

Attachment 3 Questions for the Merchant Solutions representatives after closing the Innovation program

1. Was the execution in line with your expectations? And if not how it differed?
2. Do you see any benefits of the program for Nets?
3. Would you like to see lean startup approach and service design methods to be used in Nets?
4. Do you think MS should have innovation programs in the future?
5. How ready Nets and/or Merchant Solution is for co-creation with the customers?
6. How we managed in organizing and facilitating the program?