

INNOVATIONS AND NETWORKS AS BUSINESS DEVELOPERS FOR SMES

Case SNOwMan

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Abstract

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Abstract <p>Europe has huge potential for innovation, growth and increased employment among the owner-managed SMEs, which represent the most of SMEs in Europe. Despite the potential, actions are currently missing partly because of unsuitable tools between intermediaries and SMEs.</p> <p>This thesis is part of SNOwMan -project that focuses on finding suitable solutions for owner-managed SMEs. The main tasks of the project are to find solutions for improving counselling process and develop new types of tools and methods that both owner-managers and intermediaries will find effective and value-creating.</p> <p>One key element in the project were owner-manager interviews and this thesis focuses on those interviews of 16 Finnish SMEs made in summer 2018. Interview themes were challenges, non-technological innovations and counselling.</p> <p>The aim of this Master's thesis was to find out the current status of innovations among Finnish SMEs and how they see the future of their innovativeness and what kind of networks Finnish SMEs have and what is the importance of networks for innovations. With the parts innovations and networks of interviews held in summer 2018 this thesis takes closer look on the answers considering innovations and networks in Finnish SMEs.</p>		
Keywords Innovation, Non-technological innovation, Network, SME, SNOwMan -project		

CONTENTS

1	INTRODUCTION	1
1.1	Background	1
1.1.1	SNOwMan -project	2
1.1.2	SMEs.....	3
1.2	Research objectives	7
1.3	Research method and knowledge base.....	8
1.4	Structure.....	10
2	INNOVATIONS.....	11
2.1	What innovation means?	11
2.2	Innovation vs. invention	12
2.3	Innovation models.....	13
2.3.1	Linear models.....	13
2.3.2	The simultaneous coupling models.....	14
2.3.3	Interactive model	14
2.4	Innovation types	15
2.5	Challenges	19
2.6	Innovation Strategy.....	22
2.7	Ways to innovate	25
2.7.1	Innovation radar.....	25
2.7.2	Innovation Matrix	26
2.8	Future of Innovations	27
3	NETWORKS.....	29
3.1	What network means?	29
3.2	Business network types	30
3.3	Strategic alliances.....	32
3.4	Benefits and risks	33
3.4.1	Benefits	33
3.4.2	Risks	35
3.5	Creating networks.....	36
4	RESEARCH METHOD AND PROCESS.....	39
4.1	Data collecting and process.....	39
4.2	Participants.....	40
4.3	Measures.....	43
4.3.1	Networks	43

4.3.2	Innovations	43
4.4	Results	44
4.4.1	Current Situation in Non-Technological Innovations and Future Non- Technological Innovation Plans	44
4.4.2	Networks	60
5	CONCLUSIONS	65
5.1	Innovation.....	65
5.2	Networks	67
5.3	Validity and reliability	68
5.4	Recommendations.....	68
	REFERENCES	70
	APPENDICES.....	75

1 INTRODUCTION

1.1 Background

This thesis is based on author's interest on innovations, networks and entrepreneurship. The start of thesis process was rocky but after author got information from Hämeen Yrittäjät about project SNOwMan the thesis started to grow from idea to actual thesis. After meeting with SNOwMan project manager in Finland, the pieces found their place and the idea of the thesis was found. After the meeting the thesis was supposed to concentrate on internationalization and networks. However, after the interview form to SMEs game out the thesis changed its route to innovations and networks because this way it would focus on important matters to project and on author's own interests.

SNOwMan -project gathers interviews from intermediaries as well as from SME owner managers, the interviews to SMEs were held in the summer 2018 and Intermediaries interview were held in the spring 2018. This thesis is based on the interviews held to SMEs in the summer 2018.

Before the interviews were held the project team from Germany wanted that all teams from different countries involved in the project gave their opinions on the interview form. Finnish project manager sent the form to author and wanted opinions and improvements to the form. Comments were forwarded to the project team Germany which had the main responsibility of the interview form.

As an author of this thesis as well as one of the interviewers the supposed improvements were concerning the background of the interviewed person, open points for networks, restyling questions for easier understanding, restyling the innovation part for fluent discussion between interviewer and interviewed and checking that there would not be questions with same answers or that answers would be only yes/no.

After all teams gave their comments, the interview form was modified and after that resent to interviewers and the process of the interviews were ready to start. The target to all countries were to get 20 interviews from SMEs and these should be collected on one excel -sheet on every country participating. The collection of Finnish interviews was authors responsibility as well as translating the answers from Finnish to English.

These interviews would give more information from different countries SMEs and their opinions and knowledge about cooperation, challenges, innovations incl. non-technological innovation and counselling. The answers would give information about SMEs current situation as well as their hopes and plans for the future.

On project SNOwMan the idea is to help SMEs and intermediary's cooperation by finding out correct tools for intermediaries to provide coherent and useful help for SMEs on their daily basis work. SMEs are important to Finnish and EU's economy and they have huge potential on innovations and creating new ways of working.

1.1.1 SNOwMan -project

Thus, there are different professional tools already available most of business intermediaries have challenges and they feel insufficiently when counselling SME owner-managers. The existing tools are mostly based on rational and objective criteria and are designed for companies with recruited and externally educated professional management. Because of these subjective considerations' owner-managers are usually frustrated and this makes their cooperation with intermediaries locked and less functional. (Interreg Baltic Sea Region 2018)

Owner-managers want to protect their family business, local commitments and staff. They usually have more technical than managerial skills and they misses the advices from professional board. They are very busy and would need more financial as well as human resources for strategic developments, business modelling etc. Because of these matters the intermediaries are unable to provide solutions for further expansions or even for the survival of the company. (Interreg Baltic Sea Region 2018)

The aim of SNOwMan -project is to help cooperation between Small and Medium -sized Enterprises (SMEs) and intermediaries. SMEs are said to be the backbone of European economy and they represent sectors with huge potential for innovations, growth and increased employment. The main idea in SNOwMan project is to create new counselling toolbox together with business intermediaries, universities and SME owner-managers across the Baltic Sea Region. (Project SNOwMan 2017)

In SNOwMan -project there are 13 partners and 8 associated partners from five European countries ready to improve counselling of owner-managers (figure 1). Project has started in October 2017 and will last until September 2020. Target group is owner-managed manufacturing SMEs which have 5-50 employees. During the project 148 owner-managed SMEs receives non-financial support from the project development and testing and 68 SMEs will have cooperation with Higher Education Institutions when creating the counselling tools. (Project SNOwMan 2017b)

— SNOwMan in numbers

- 13 partners and 8 associated partners collaborate across 5 European countries to improve counselling for owner-managers.
- The project has 36 months to fulfil its aims. The project runs from October 2017 to September 2020.
- SNOwMan has a total budget of €2,085,850.00- €1,631,588.00 of which has been allocated by Interreg Baltic Sea Region.
- Approximately two million SMEs in the EU are manufacturing SMEs – constituting around 10 percent of all SMEs in the EU.
- Target group: owner-managed manufacturing SMEs with 5 to 50 employees.
- 148 owner-managed SMEs will receive non-financial support as part of the project development and testing.
- 68 SMEs will cooperate with Higher Education Institutions in the creation of the counselling tools.
- The main output is a counselling toolbox that will contain 4 elements including a 6-step counselling process concept and a spider web tool.

Figure 1. Project SNOwMan in a nutshell. (Project SNOwMan 2017b)

The project's main objective is to develop and to institutionalize a new type of tools and methods that both owner-managers and intermediaries will find effective and value-creating and that respond to the owner-managers' challenges and needs towards internationalization. The counselling toolbox will contain a 6 -step counselling process and a spider web tool. (Project SNOwMan 2017)

Counselling process starts with an introduction of owner-manager and business intermediary and the aim is to create respectful and trustful relationship. Intermediary will make interview with owner-manager for finding out the potential need for cooperation/counselling. Owner-manager will clarify the visions of the company as well as explain the challenges. After the challenges are identified together intermediary and owner-manager will draw up a strategy and action plan for the company. Finally, the strategy and action plan will be measured and evaluated with methods and indicators that have been chosen. The spider web tool is for identifying the challenges. It will be used to identify and graduate the 8 most common and effecting challenges that owner-managers are facing. (Project SNOwMan 2017)

Based on the need for better professional tools the mission of project SNOwMan is to create tools for easier cooperation between SME owner-managers and business intermediaries. With these tools business intermediaries would have steady and better starting point to counselling SME owner-managers. (Project SNOwMan 2017b)

1.1.2 SMEs

EU recommendation 2003/361 gives definition to SMEs. Three different factors that determine the SMEs are staff headcount, turnover and total of balance sheet. Figure 2

shows the difference between medium-sized company, small and micro company. (European Commission 2018)

Company category	Staff headcount	Turnover	or	Balance sheet total
Medium-sized	< 250	≤ € 50 m		≤ € 43 m
Small	< 50	≤ € 10 m		≤ € 10 m
Micro	< 10	≤ € 2 m		≤ € 2 m

Figure 2. Difference between companies. (European Commission 2018)

In Finland SME definition is same as EUs definition and it means that company have less than 250 employees and yearly turnover is maximum of 50 million euros. These companies are as well sovereign which means that their capital or shares are not owned by companies that doesn't fit on the definition of SME. (Statistics Finland 2018)

Entrepreneurship is recognized as a key aspect of economic dynamism because they are seen as important influencers on economic growth, productivity, innovation and employment. Innovations are happening all the time among entrepreneurs when they develop new or improve existing products, services or processes. New technologies possibilities the growth of new companies and old companies to increase their productivity and efficiency. (OECD 2010, 104)

Small and medium-sized enterprises (SMEs) form the backbone of the European economy. They create new jobs and economic growth and ensure the stability of society. In 2014 there were 21 million SMEs in the EU and 88,8 million people across the EU worked on SMEs. Nine of ten companies are SMEs and they create two of third of all jobs. (Euroopan Unioni 2015)

SMEs increase entrepreneurship and innovation throughout the EU and these matters increases the competitiveness and employment. Because of the importance on European economy, SMEs are seen one of key elements on EU policy priorities. The European Commission is promoting the entrepreneurship and improving SMEs business environment so that they can take advantage of all their potential in today's global economy. (Euroopan Unioni 2015)

The Head of European Union Jean-Claude Juncker has said that SMEs are the tower of strength in Europe because SMEs create more than 85% of Europeans new workplaces. This is the reason why European Union want to support innovation and competitiveness among SMEs. (Euroopan Unioni 2015)

From all enterprises on EU the average of SMEs were 99,81 % at 2016 and in Finland from all enterprises the number of SMEs were 99,74% (figure 3). In Finland SMEs employment figure comparing to all enterprises was 65,42% and in EU 66,63% (figure 4). SMEs have added the value 56,8 % comparing to all enterprises on EU and in Finland the value adding is 59,77 % from all enterprises (figure 5). (European Commission 2018b)

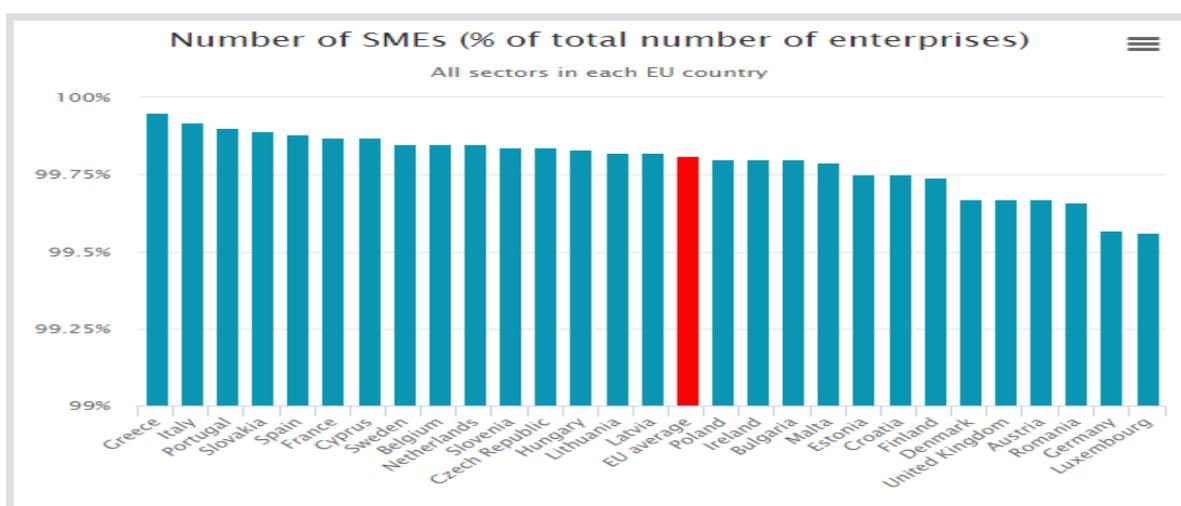


Figure 3. Number of SMEs in EU's all enterprises. (European Commission 2018b)

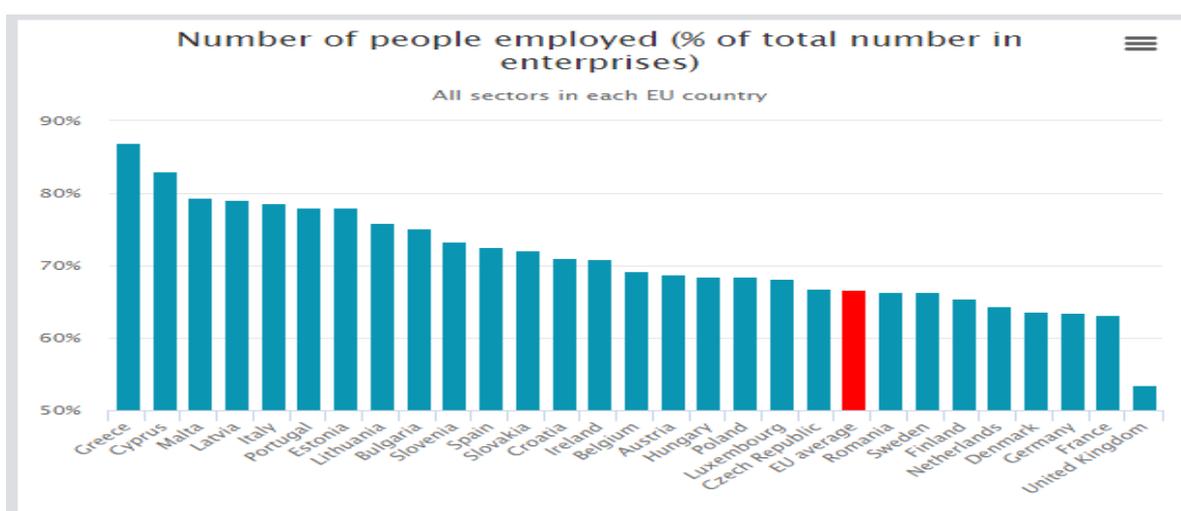


Figure 4. Number of employed people at SMEs in all EU's enterprises. (European Commission 2018b)

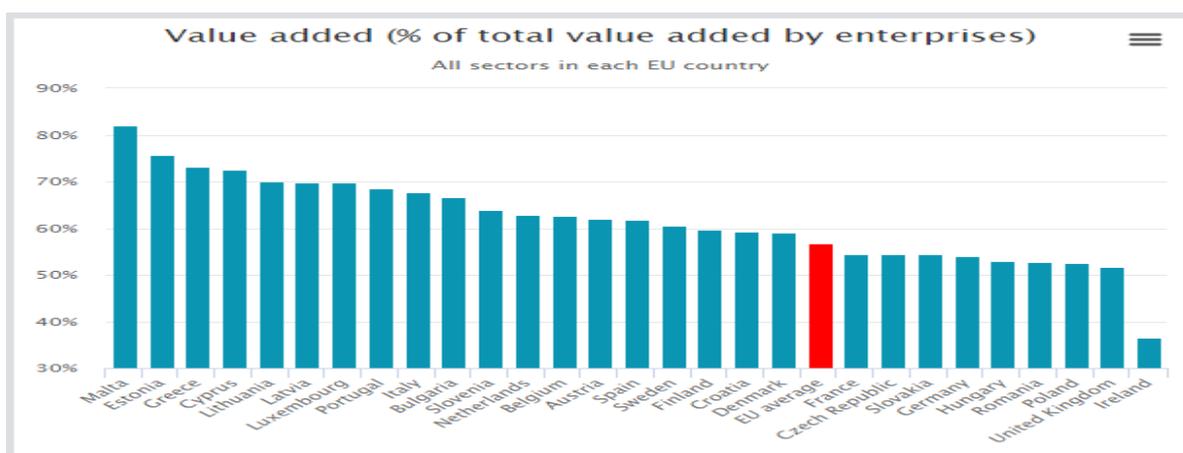


Figure 5. SME value adding of all EU's enterprises. (European Commission 2018b)

In Finland SME value adding increased by 7,2% in years 2012-2016 and comparing to large companies the growth of value added was almost twice as much among SMEs. On large companies the employment decreased 6,1% while in SME employment increased 4,8% in same period (years 2012-2016). It is estimated that SMEs will create approximately 8.000 new jobs between 2016-2018 in Finland. (European Commission 2018b)

The number of persons employed in Finnish SMEs has increased from year 2008 and it is estimated to increase on higher amounts that averagely in the EU area. Figure 6 shows the history of employees from 2008 and estimated increase of the employed persons starting from 2015. Figure shows also the value added of SMEs comparing Finland and average of EU. It describes that starting from 2009 the value adding has increased and it has been evaluated to increase in future as well. (European Commission 2018b)

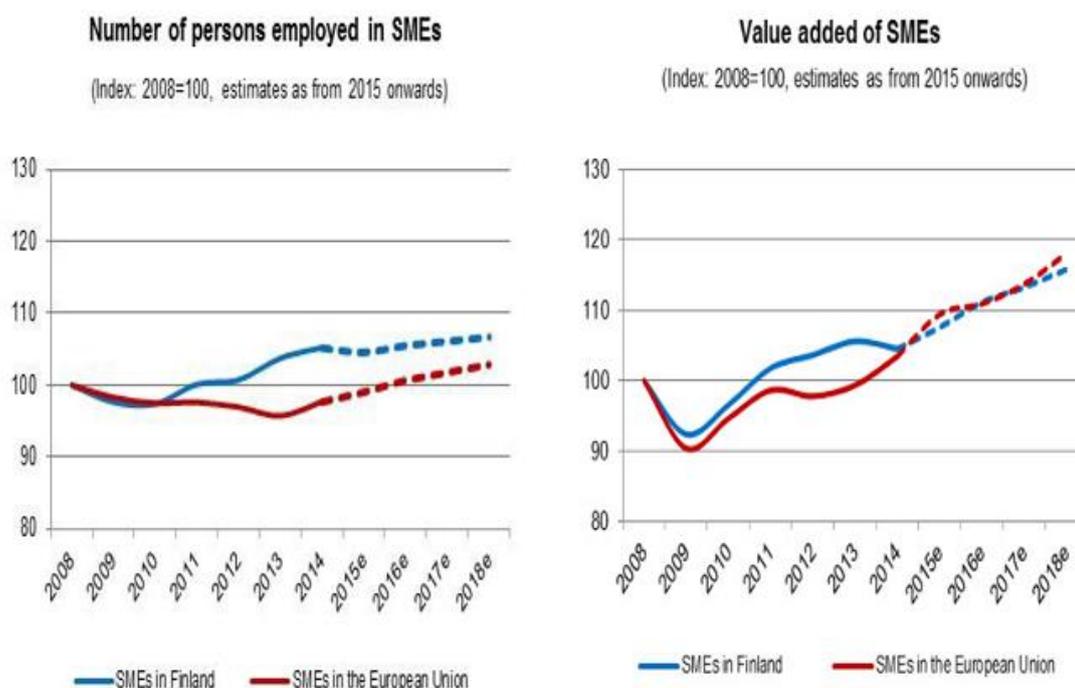


Figure 6. The change of employees and value added of SMEs in Finland and European Union. (European Commission 2018b)

In last ten years Finland has implemented several SME-supportive policies however there are still few obstacles to solve for SMEs to survive in changing and challenging future. These challenges are to making entrepreneurship more attractive, commercializing innovations by helping existing support instruments transforming innovations into commercial products and services, reducing export rates and focus on public administrations when implementing rules and regulations. (European Commission 2018 2)

1.2 Research objectives

Bases on the introduction and the importance of innovations, networks and SMEs to Europe, Finland, project SNOwMan and to the author the aim of this thesis was to find out the current situation of Finnish SMEs innovation levels and networks. The aim was also to find out how Finnish SMEs see their future among innovations and are current and future innovativeness linked to networks. As well as are networks linked to financial situation?

The research questions are following:

1. What is the current situation in innovation activities in Finnish SMEs and how they see future of innovativeness?
2. What kind of networks Finnish SMEs have and are networks linked to current and future innovation activities?

3. Is the financial situation linked to networks?

The objective of this research is to map the current situation of innovations and networks and possible links between these two and financial situation of SMEs. The research aims to increase knowledge of different innovation types and networks and the importance of these to Finnish SMEs future competitiveness. The target group for the study were Finnish SMEs but also project SNOwMan and intermediaries.

1.3 Research method and knowledge base

Research can be seen as an investigation and its meaning is to add knowledge and/or provide possible new solutions. Research is re-searching and it is finding answers to matters that perhaps are known before but needs to for some reasons studied again. "Research is a way of knowing the world and what happens in it." (Ayiro 2012,1, 4)

Ayiro (2012, 17) present six step process of making research study that have originally presented Kerling in year 1972 and Leedy & Ormond in 2011. Figure 7 shows the circular of these six steps where the process starts by identifying a problem which defines the goal of research, makes expectation, resolved the problem, gathers data to expectation and analyzes the data for comparing if it supports the expectation. It also resolves the question that was made based on the problem in the beginning of the research.

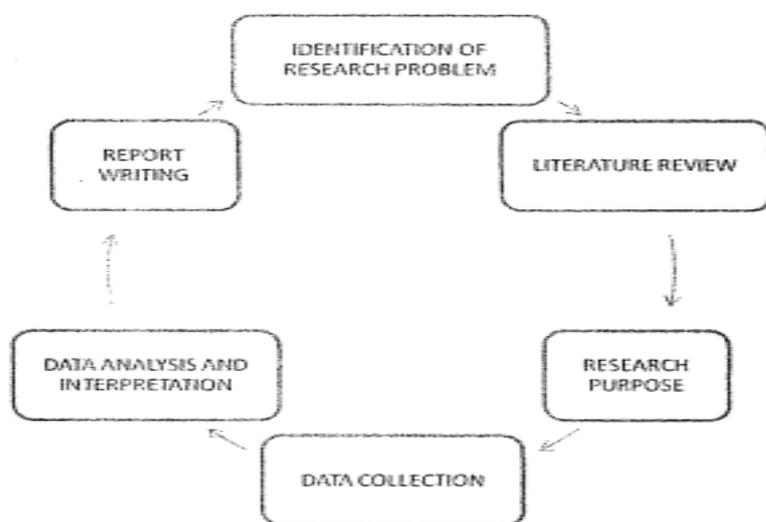


Figure 7. The Process of Research (Ayiro 2012,17)

There are three different research methods quantitative, qualitative and mixed. When quantitative research is usually based on numerical or percentages terms the qualitative research is based on subjective assessment of behavior, attitude, opinions etc. Mixed

method is using both quantitative and qualitative research methods, data and techniques. (Krishnaswami & Satyaprasad 2010, 6-7; Ayiro 2012, 489)

Qualitative and quantitative research method have similarities because both of them follow the six steps in their process of research, both have introduction about the importance of the research problem and both of them uses interviews and observations. Figure 8 shows the similarities and differences between these methods. (Ayiro 2012, 24)

Research process is similar in the beginning even the research would be qualitative, quantitative or mixed, all three start with research problem and after that collecting literature review (Figure 8). The differences between quantitative and qualitative is that the data analysis of quantitative is based on statistics and qualitative is based on text or image analysis. Other difference based on Ayiro (2012, 26) is the structure of report where qualitative has more flexible data reporting and quantitative has a set structure of reporting.

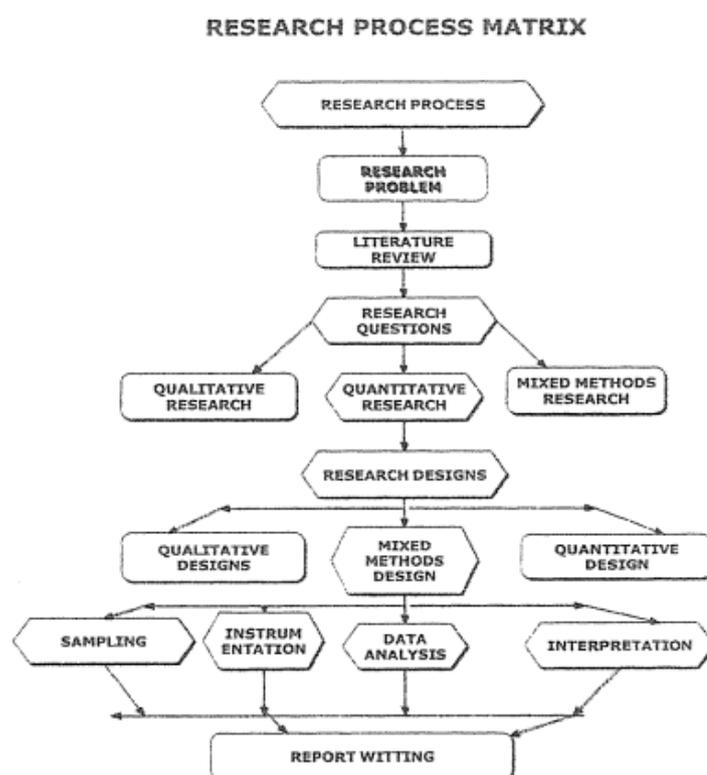


Figure 8. Research method process (Ayiro 2012, 25)

Sometimes there is need to combine both qualitative and quantitative research methods. Reason for this is that qualitative research creates knowledge on the base of different factors and quantitative research indicates the volumes. When qualitative research meth-

od is used when new phenomenon needs to be understood, the quantitative research requires understanding of the phenomenon. (Kananen 2011, 36,72,131)

On this thesis the research method is mixed because there were used both qualitative and quantitative methods during the interviews and data analyzing. The research was made with cooperation to SNOwMan project and the interview forms question to SMEs was gathered by the project teams at SNOwMan. The interview form gave enough information to this thesis research question and there were no reasons for creating new interview form or questionnaire to SME owner-managers.

1.4 Structure

The theoretical framework of this thesis consists of two main area which are innovations and networks. The first section of this thesis gives information about innovations. It gives overall information about innovations, what is the difference between innovations and invents, innovation types and models and finally information about the obstacles of innovations.

Second chapter focuses on networks. It gives information about networks and strategic alliances, different types of networks, what are the benefits and risks, how much networks influences on business and how to create networks.

Third section is a summary of the research. It gives more information about the data collecting and process of the interviews and detailed information about participants, measures and overall results.

Last chapter is for conclusions. It gives answers for the research questions about Finnish SMEs innovation levels and future plans, current networks and influences between innovation levels and networks. And proposals for increasing innovation activities and expanding the networks of SMEs.

2 INNOVATIONS

" We cannot solve a problem by using the same kind of thinking we used when we created them." – Albert Einstein

2.1 What innovation means?

What innovation means? In a short way it is a process of implementing new ideas. In past years our social, financial, political, technological and environmental conditions have changed and the change has been massive. (McKee 2011, 262)

Few decades ago it was common to think that inventions and innovations were rare or unusual series of actions. One example of this kind of thinking is Edison and the invention of light bulb. Today innovations are seen normal actions and innovation and inventions are made all the time and all around. Products, processes and other solutions are improved and varied on daily basis. (Koivisto, Mikkonen, Vadén, Valkokari, Ahonen & Vainio 2011, 19)

Solatie & Mäkeläinen (2013, 28-29) gave different definition to innovation. They explained that innovation is fresh thinking that creates value and it is widely introduced invention or reform. Innovation can be for example a new or improved product, service, system, process, operating model, operation model, brand, distribution channel or user experience. And it means that something new has started for the first time and it's a creation of something new.

Innovations are important for owners of the company as well as the customers, employees, citizens, governments and even for nations. It is a win-win -situation for all. From customer's point of view innovations gives them possibility to receive new or improved products and services. And in the other side, the company receive more incomes when selling new products or services. This creates more revenues and when company success they can pay salaries for employees. After receiving salary, the employees are able to buy more, and this increases the gross national product. Employees and companies pay taxes to government and companies can innovate more because of the good turnover on previous innovations. (Sorensen 2012, 111)

Innovations create business competitive and add value for the company. This can be seen the most important task of innovations. Secondly innovations increase the profits of the company. (Solatie & Mäkeläinen 2013, 29)

2.2 Innovation vs. invention

Innovation and invention terms are easy to confuse and Trott (2002, 11) defines that innovation is the first cousin of invention but those are not identical twins. Innovation is wide concept and can be understood in many ways. The difference between innovation and inventions is that innovations are seen on commercial and practical application of ideas or inventions.

It can be said that innovations are inventions which have been discovered. Sorensen (2012, 111) explains how innovations can be first inventions and after discovery those are innovations, for example Edison and Swan's light bulb and Bells telephone. Sorensen explains that both examples were first inventions, and both ended up being innovations because they were commercially exploited.

There are also inventions which never have commercial value and there are several reasons for that. For example, all inventions cannot be good ones or the potential for commercial invention has been lost during the business development process. According to Sorensen (2012, 111-112) a good idea should fulfil below criteria's:

- New and different invention
- Increase revenue or/and reduce costs
- Inventive and creative and not obvious to rivals for invent

When invention fulfils these three (novelty, utility and non-obvious) features it has high potential to become a good innovation. (Sorensen 2012, 111-112)

An idea, a concept, a sketch or a model for a new improved product, device, process or a system can be called as an invention. When creating new knowledge or new ideas can be called inventing. Integration of technology and inventions to create a new improved product, process or system is called innovation. In the economic sense innovation is accomplished through the first utilization and commercialization of a new product, process or system. (Jain, Triandis & Weick 2010, 34)

According to Beswick, Bishop and Gerathy (2015, 3-5) invention and innovations complete each other and can be said that those are the opposite sides of the coin but still those are two different matters. Inventions are creating something new or different by building on existing knowledge. Inventions can be seen looking for what. In other hand innovations wants to create lasting synergies and solutions and it can be seen that innovations are looking how. On innovations everyone is participating for creating solutions on genuine problems by improving products, processes or to services.

2.3 Innovation models

2.3.1 Linear models

After second world war the linear models have been used widely to show how innovations occur. The reason for the popularity is mainly on the simplicity. Linear models dominated the science and industrial policy almost 40 years before people around the world started to challenge the linear process. (Trott 2010, 16-17)

There are still debates which activities influences on innovation and to the internal processes that are affecting on company's ability to innovate. Usually the innovation process has been viewed as a sequence of separable stages or activities (figure 11). On technology driven model scientist discovers, technologist develop product idea, engineering's and designers turn them into prototypes. After testing the manufacturing starts to produce the products in an efficiently way. Finally, the marketing and the sales will promote the product for customers. (Trott 2010, 17-18)



Figure 11. Linear model technology push (Trott 2010, 18)

Second linear model called market pull was discovered in the 1970s when new studies showed that the role of marketplace was influential in the innovation process. The model (figure 12) is driven by customers need. It emphasizes the role of marketing and marketing as an initiator of new ideas. After interactions with customers these ideas are conveyed to research and development for design and after engineering to manufacturing. (Trott 2010, 18)



Figure 12. Linear model market pull (Trott 2010, 18)

2.3.2 The simultaneous coupling models

The stimulation for innovation may come from different needs of technology, customer need, manufacturing or other factors (figure 13). Linear models focus on the matter that is driving the downstream matters and gives explanation on where the innovation stimulation was born. On simultaneous coupling model research and development, manufacturing and marketing are stimulating the innovation. (Trott 2010, 18)

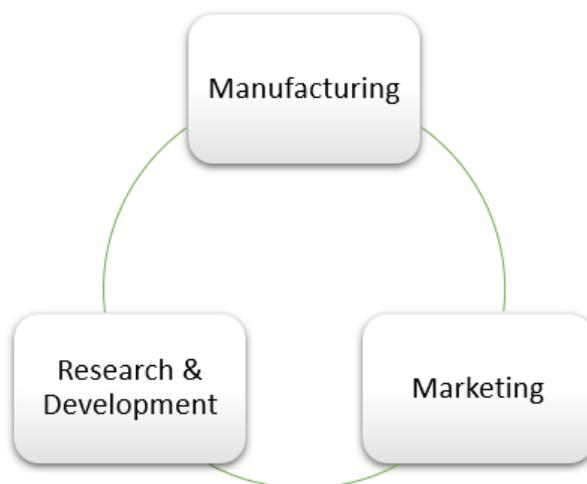


Figure 13. The simultaneous coupling model (Trott 2010, 18)

2.3.3 Interactive model

Interactive model pushes the idea further linking both linear models as well as coupling model with no explicit starting point. Innovation occur in the result of interaction of the marketplace, science base and the organizations capabilities. (Trott 2010, 19)

On figure 14 the organizational functions as R&D, engineering and design, manufacturing and marketing and sales are in the center of the model. Model looks like linear model, but the flow of communication is not necessarily linear. Marketplace and science base occur between all functions. Overall the generation of ideas depends on the inputs of three basic components: organizational capabilities, the needs of the marketplace and the science and technology base. (Trott 2010, 19)

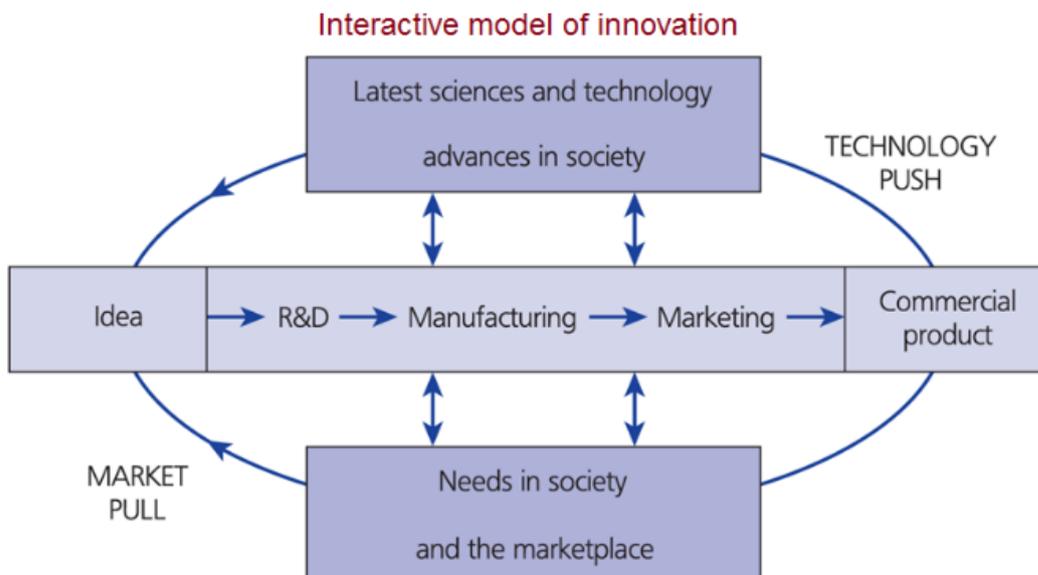


Figure 14. Interactive model of innovation Trott 2010, 19

2.4 Innovation types

There are several different types of innovations, even usually innovations are thought to be only services or products. Innovations can be related to design, technology, marketing, distribution change, process change or even to strategy. Innovations are related to all business and not only for services and products. (Solatie & Mäkeläinen 2013, 29)

Innovations can be categorized as technological and non-technological innovations. Technological innovations are related to developing or using new technologies when non-technological innovations mainly considers for example new business methods, new organisational concepts or marketing methods. (Schmidt & Rammer 2005 ,4)

According to Schmidt and Rammer (2005, 32) technological and non-technological innovations are linked to each other. When company has introduced new technological innovation, they usually have used non-technological innovations when pronouncing innova-

tion to audience. When companies are making technological innovations, they are also affecting to their non-technological innovativeness.

When companies are combining their product and process innovation, with marketing and organisational innovations they receive better results on sales comparing to innovations that are focused only on technological innovations. It has been shown that companies have better profit margins when they combine non-technological and technological innovations together. (Schmidt & Rammer 2005, 32)

Non-technological innovations are linked with organizational and marketing innovations when technological innovations are based with products and process innovations. Both innovation types are highly interconnected. When achieving new technological product innovations there comes also a need to develop new marketing methods. As well as new production technique will increase productivity but only when it is supported with changes in the organization. (The Innovation Policy Platform 2018)

Innovations can be classified also to radical innovations and to incremental innovations. Radical innovations mean something new or significantly changed product, services or process. The impact is bigger than incremental innovations for example there is possibility to reach total new markets. Incremental innovations are developments of existing products, services and processes. The change is small, and the purpose is for example to optimize customer benefits, reduce costs, adapting new laws etc. different kind of circumstances. (Zapfl 2018)

Solatie & Mäkeläinen (2013, 30) introduced seven different types of innovations. These types are: Product and service innovations, Technological innovations, Design innovations, Marketing innovations, Distribution innovations, Process and culture innovations and Strategy innovations.

Product and service innovations

Product and service innovations are the most common innovations. These innovations mean new product and services as well as improvement of existing products or services. Product innovation means that companies may develop a new product, make improvements on existing product or add new features on existing product. (Solatie & Mäkeläinen, 2013, 30; Baer 2018)

Products and services have five lifecycle steps: Development, Introduction, Growth, Maturity and Decline. On development stage the product or service is just an idea. On introduction the product or service is launched, and marketing is one key elements for success. On Growth -step the competitors are arriving however the sales and margins are

growing. This point the improvements or new product, or service innovations should be started. On maturity face the growth of sales has stopped or slowing down and increased competition has lowered the prices. Time to invest on new product or service. Decline means that new and improved products or services are on the market, but competition is high. When innovation is ongoing process there is always new product or service waiting introduction when the decline starts. This way companies can raise their sales again. (Info Entrepreneurs 2018)

Solatie and Mäkeläinen (2013, 30) explains that Finnish Fazer has good and known product innovation where they have combined two favorite candies. Fazer mixed their classic chocolate and licorice called salmiakkiruutu. Another example on their book was about service innovation where Finnish banks were the first ones in the world that started to provide bank services on the internet. Customers could among other things pay bills at online at home.

Technology innovations

Technology innovations mean that there is a gift to create new technology or way to improve or adjust on own needs technology that someone else have created and invented. Technology innovations are for example electricity, airplane, photography, internet etc. (Solatie & Mäkeläinen, 2013, 31)

Examples that Solatie & Mäkeläinen (2013, 31) gave were about big companies have not been interested to invest on ideas they have thought to be stupid but in the end those ideas have been big and outstanding innovations. One of these innovations were phone and it was not interested by Telex company. However small companies believed that phone is future and started to innovate more on phones and the rest is history. Another example in their book was about copying text. IBM and other big companies like 3M and DuPont refused to believe to the copying technology because of the availability of cheap carbon paper. Company called Xerox was established because the people who invented the copying technology believed on their idea and decided to start their own business.

Design innovations

Design adds extra value to products. Customers define the value and new design can lift the product on higher levels. Individual design adds value among consumers. When companies are developing products that are not functionally, they improve the design of the product and this way they are able to create emotional link between customer and the product. (Utterback, Vedin, Alvarez, Ekmaan, Walsh Sanderson, Tether & Verganti 2006. 26-27, 154)

Design innovations can relate to design or to improving the usage of a product. Design innovations are for example iPod or iPhones because they are easy to use and have highly adorable style. But design innovations can be co-operation of two very different types of companies; like Marimekko and Kone. Marimekko and Kone had cooperation when they redesigned elevator walls together. This way they were able to mix two well known brands in Finland and adding awareness of their products in a new way. (Solatie & Mäkeläinen, 2013, 32)

Marketing innovations

Marketing is changing and focusing on digital marketing and especially on social media. Among Facebook, Twitter and other social medias, the livestreams are new and innovative ways of marketing. Technology is changing also the marketing channels and influencing on marketing innovations. (Patel 2017)

Marketing innovations are usually linked to other innovations especially with product, design or service innovations. Marketing innovations are something that gives something extra competing to rivals and can be seen from marketing point of view. Brand innovations are also marketing innovations. Good marketing innovation example is Victoria's Secret that changed the whole industry by showing underwear on showcases instead of the back corners of shops. Another marketing innovation is Intel inside -sticker on computers. This way the unknown compressor inside the computer is known by most of the people. (Solatie & Mäkeläinen, 2013, 32-33)

Logistic innovations

Distribution innovations means finding new distribution channels by using creativity. Products and services are delivered in a new way that helps buying. Finnish F-Secure is one example of distribution innovations. (Solatie & Mäkeläinen, 2013, 34)

In future for example automation, robotics, wearable technology, drones, self-driving vehicles and cloud computing will change the logistic industry. This means that the whole industry will be optimized in total new ways. New innovations are still unknown but companies at the forefront will get good benefits out of these new features on logistics. (van Rossum 2016)

Process and culture innovations

Solatie & Mäkeläinen (2013, 34-35) explains that process innovations are the new way of developing companies processes inside and outside. These innovations usually reduce production costs, improve productivity or/and improve job satisfaction. Customer detect

the process innovations during the time as faster service or better products. Process innovations are important to companies because these support other important innovation areas especially product, service and strategy innovations.

Culture innovations are part of process innovations and those improve organization culture as well as corporate structure. These improvements upgrade customer satisfaction and increases sales that improves company's economical result. Customer receive better service faster and more effectively. Customer don't know when or what has caused the change if they are happy and after the customers are happy on the result, they are willing to buy again. (Solatie & Mäkeläinen, 2013, 35)

Strategy innovations

On strategy innovations the companies are trying to create new value to the customers. Strategy innovations are born for example when company decides to change the target group. New channel CNN is a good example of a strategy and technology innovation. Satellite and cable TV offered to Ted Turner great chance to create innovation: The world's first news channel CNN which provides news 24h. This added new value to their customers. (Solatie & Mäkeläinen, 2013, 36-37)

The difference between traditional strategy planning and strategy innovations is that traditional strategy planning is made for increasing current markets when strategy innovation creates new value for new markets. Strategic planning is analytical and focused on numbers and innovations are creative, visions and weak signal-based actions. Strategy innovation creates thoughts, ideas and fuel to the strategic planning. (Solatie & Mäkeläinen, 2013, 37)

2.5 Challenges

Innovations are not only product innovations but usually companies focus on their products and don't know how to innovate on the other areas. Unfortunately, competitive advantaged and profitable products are usually copied by rivals and then there are no guarantees of return on investment which was made during product development. (Govindarajan & Desai 2013)

Innovations are not only ideas because the ideas must execute. Execution might happen fast, or it might take several years. Govindarajan and Trimble (2010, 2-4) calls this as the other side of innovations. Brainstorming and out-of-the-box thinking are fun but those are not enough, and the execution is hard work.

Improvement means change and organizations must have ability to adapt and change their behavior quickly. This is way how organizations can face the rapidly changing customer requirements. Improvements are usually welcome but the changes that comes with improvements are the feared features. Change usually means something uncontrolled and that is the reason why it is causing fear. (Charron, Harrington, Voehl & Wiggin 2014, 279-281)

Process improvements usually requires some kind of change and that can be described as innovation. Common resistance for change is caused by the fear of the unknown, different beliefs and measurement systems. (Charron, Harrington, Voehl & Wiggin 2014, 297,304)

There are many challenges and obstacles on innovations. Solatie and Mäkeläinen (2013, 41) have found nine main reasons why innovations are seen difficult on companies:

Fear

There are different kind of fears, fear of unknown, fear of failure, fear of looking stupid to others etc. Creativity and innovativeness always lead to unknown, towards something we have never seen. It´s natural that fear is linked to innovations because innovations takes us out of our comfort zone. (Solatie & Mäkeläinen, 2013, 42-43)

When something goes wrong, we should not ask who did this, we should ask why this happened and what we can learn from it. And after that the route is straight forward because that is the way how innovations are born. (Solatie & Mäkeläinen, 2013, 42-43)

Assumptions

Assumptions are the things that the industry sees as facts as long as someone breaks them. Assumptions are dangerous because they slowdown innovation processes. Everything cannot be generalized. (Solatie & Mäkeläinen, 2013, 43)

Knowledge

Knowledge may prevent us to see the change. There are thousands new ideas and these ideas needs to be found and knowledge helps with this. The world is not flat and only need for knowing helped humankind to clear this assumption. (Solatie & Mäkeläinen, 2013, 45-47)

Customs and habits

We all have our own customs and habits and we are living among different customs and habits. We have western culture, Finnish culture, workplace culture etc. We usually work

as we have taught to work but it would be good to stop and ask why things are doing like this. In the best cases this helps to find out a new improved way of doing things. (Solatie & Mäkeläinen, 2013, 47-48)

Laziness

The biggest enemy against creativity and innovativeness is phrase why fix something if it's not broken; why should we spend our time on that? When current state is okay, and everyone is quite satisfied most of the people don't see any reasons for looking anything else, new or improved. (Solatie & Mäkeläinen, 2013, 48-49)

Usually market leaders are lazy because they want that everything stays as they are. There are no development and hope that no other is either pushing their R&D forward. And in the end if smaller rival launches something new to markets they always can buy the rivals whole business. (Solatie & Mäkeläinen, 2013, 49)

Branch office

Many international companies have branch office in Finland and major decisions are made in the head quarter. This cause the common situation that there are no decision making in brand offices. Case is not that because even major strategic decisions are made in the headquarters but the people in branch offices may influence on those decisions. It is two different matters where the decisions are made and who influences on those decisions. (Solatie & Mäkeläinen, 2013, 50)

No compensation

Compensation should correlate to the benefit that the result/innovation achieves. If companies want that their employees are creative and innovative, they must be ready for good incentive. (Solatie & Mäkeläinen, 2013, 51-53)

Time

The lack of time is an excuse. Everyone has exactly same time, even companies that innovates than companies that don't innovate or with CEO of big international company than man next to you. (Solatie & Mäkeläinen, 2013, 54)

Management

Changes are rapid and global in business and the values of management are changing. Management should keep up with the changes and remind that it is not only a position in the company. Management and organizational culture influences highly on the company's ability to innovate. (Solatie & Mäkeläinen, 2013, 55)

2.6 Innovation Strategy

The idea of innovation strategy is to get guidance on decisions how resources should be used for innovations for achieving the best value and competitive advantages. It identifies the technologies and market that gives best value to the company capture in future. (Dodgson, Gann & Salter 2008, 95)

Innovation strategy can be seen as innovation system where all ideas and problems are in the same place. This way company can easier decide the right elements on different problems. When all problems and solutions are in same place organizations don't have to fight which point of view is the most important. For example, R&D scientists, marketing and sales representatives have different perspective and solutions thus different perspectives are important to successful innovation. Innovation strategy combines these different perspectives around common priorities. Without innovation strategy the different perspectives could cause chaos and even good business strategy cannot ease the situation. (Pisano 2015)

According to Satell (2017) innovation is about solving problems and because there are different kind of problems then there are as many ways to innovate. Innovation strategy should be built up like portfolio which includes different solutions for specific tasks. The portfolio should include several innovation strategies which are designed to solve different types of problems. Companies rarely rely only one source of financing or marketing tactic and why they should rely only on one innovation strategy. For identifying the right strategy for solving the problem, it's important to define the problem and the needed skills for solving the problem.

There are four elements that are involved in innovation strategy and below figure 9 shows these elements. First of four elements is the innovation **strategy** itself. This includes its targets, company's business strategy, existing innovation actions and company's operating environment. Targets are technologies and markets that managers think they are creating, and which offers the best value to the company. Second are the **resources** which are available for the innovation. These are the assets that company owns and which they have preferential and secured access. Third are the innovative **capabilities** that offers guidance for assessments, configuration and reconfiguration of these resources. Fourth is the innovation **process** used to deliver the results which combines management, R&D, operations and commercialization for producing innovations. (Dodgson, Gann & Salter 2008, 96)



Figure 9. A Simple model of innovation strategy (Dodgson, Gann & Salter 2008, 96)

Innovation strategy is linking business strategy and new product development efforts together. When business strategy defines key objectives, overall direction, priority initiatives and the expect of growth, the innovation strategy makes possible to the companies to rely on new products, technologies and platforms. This way the companies can advance their business strategies with creating customer value, growing market share, entering new markets and increasing profitability. (Stage-Gate International 2018)

Apple, Amazon and Starbucks are the most successful growth companies and they have adapted four best practices for increasing their innovations and financial growth. According Power (2018) the four best practices are finding the next S-curve, lean on customers, thinking like a designer and leading the way.

It is important to find the next S-curve because even the best products, market and business models have their own cycle of life. When the growth is ongoing the leaders are blind-sided to see the S-curve (Figure 10). Ongoing innovation process is important for survival because it is impossible to predict when the growth settles. When innovation is normal process the innovation window is always open and new curve of growth can begin when the old is settling. (Power 2018)

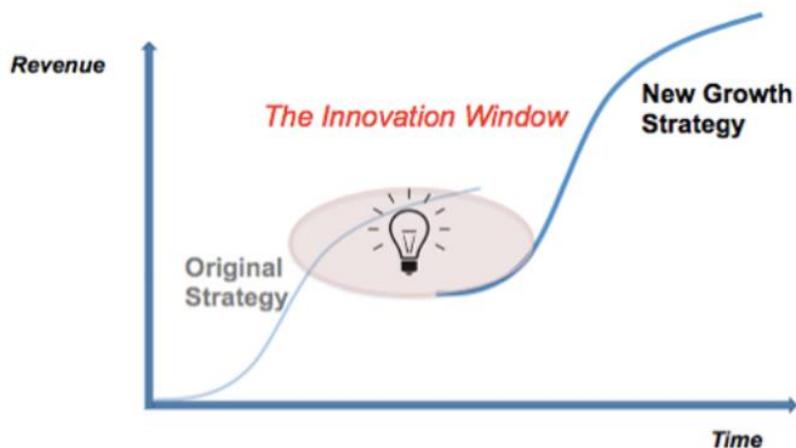


Figure 10. The S-curve (Power 2018)

According to Power (2018) when companies have deep understanding on their customer's problems they are able to uncover new opportunities to cover value. When knowing the customer, they know their problems and wishes and this way companies can answer to these needs rapidly.

Innovation is creating new options, and this requires design thinking. Blue Ocean Strategy and Business Model Canvas helps on search the new market spaces. (Power 2018)

The role of the top of the company is important because innovation won't happen if the CEO won't priorities innovativeness. Companies have created culture of innovation and top management are showing the importance of innovations to the whole company. (Power 2018)

Consumers today are more demanding than consumers have been ever before. They are more aware of their actions to the plane, they are volunteering and caring, they are used to look answers from online and they are entrepreneurial and innovative than consumer have been before. Consumers are waiting outstanding customer experiences and they are not happy only for working product/service. Organizations needs to be ready for adapting changes quickly and even predict the future needs of their customers. (Beswick, Bishop & Gerathy 2015, 8,10,18)

According to Solatie & Mäkeläinen (2013, 58) there are ten way to increase the capacity of innovations and creativity:

- Innovation is systematic, continuous and determined
- Innovation has clear goals
- Managers show example
- Whole staff is included

- Teams consist of sufficiently diverse people
- Innovation is customer-oriented and happens also outside the company
- Resources are allocated sufficiently
- The evaluation of ideas is open and impartial
- Innovations are commercialized quickly
- Success is rewarded and celebrated

2.7 Ways to innovate

2.7.1 Innovation radar

There are 12 dimensions of business innovations that innovation radar displays (figure 15). There are **offerings** the company creates, **customers** it serves, **processes** that employees make and **presence** that shows the offerings to markets. These four are said as anchors however there are eight other dimensions which provides companies possibilities to find different angles for their innovations. (Sawhney, Wolcott & Arroniz 2006)

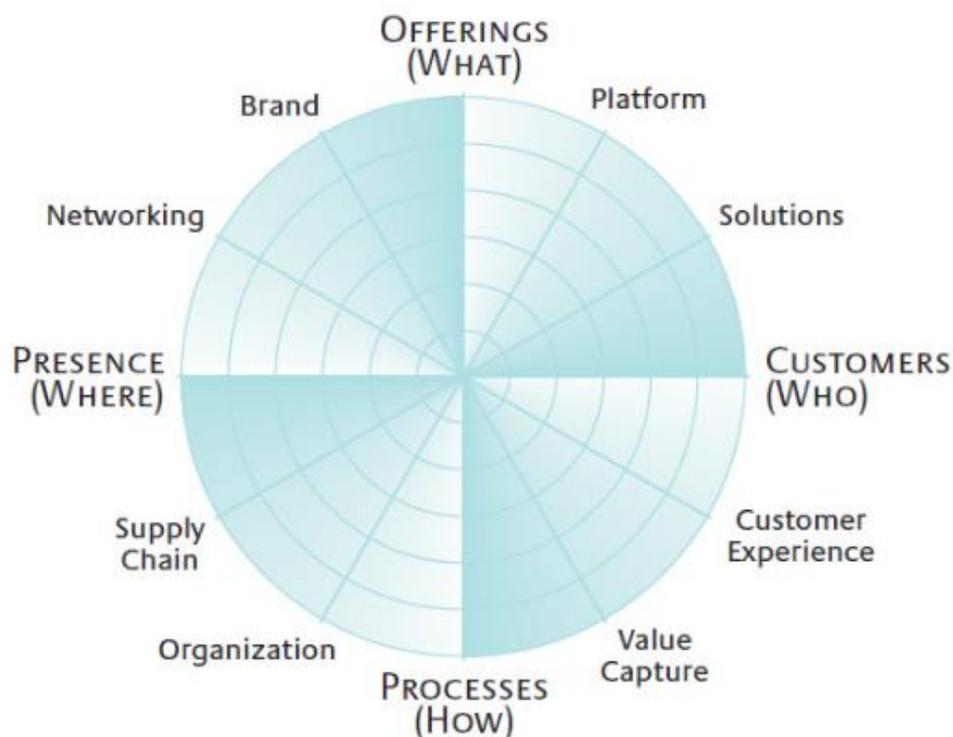


Figure 15. The innovation radar. (Sawhney, Wolcott & Arroniz 2006)

In the innovation radar **offerings** are the company's products and services. New products and services add value to customers. A **platform** has different blocks that create diverse set of offerings more quickly and cheaply than items standing alone. These blocks may be for example common components, assembly methods or different technologies. **Solution**

gives customized solution for customers problem because it is integrated combination of products, services and information. (Sawhney, Wolcott & Arroniz 2006)

Customers can be individuals or organizations and they use or consume offerings for certain needs. On customer dimension the company may discover new customer segments or unknown needs of customers. **Customer experience** consider everything customer experience when interacting with the company; what the customer sees, hears or feels. When innovating on customer experience dimension the company needs to think their interaction with customer. On **value capture** innovation the company can capture and expand the value received when they are interacting with customers and partners. (Sawhney, Wolcott & Arroniz 2006)

Processes are the internal operations of business activities. Innovations among processes means that company may redesign their processes for higher efficiency, better quality or faster cycle time. Processes can be fixed overall or from the start or from the end of the process chain. **Organizational** innovations focus on rethinking the scope of company's activities, roles, responsibilities, business units and individuals. Organization rethink how they structure themselves, partnerships, role as employee and responsibilities. **Supply chain** is where activities move goods, services and information from source to the end as a delivery of products and services. Innovations in supply chain dimension happens by streamlining the whole chain and changing its structure for example logistics, designs etc. (Sawhney, Wolcott & Arroniz 2006)

Presence dimension means the points where markets are, where offerings can be bought or used by customers. Companies can innovate by creating new points of presence or even using existing ones however in creative ways. Products and services are connected to customers through a network. On **network** dimension innovations may be considering the changes or improvements on the networks that increases the value of company's offerings. **Brands** create different symbols, works and marks which creates images or even promises to customers. Innovation in brand dimensions means extending the brand in creative way. (Sawhney, Wolcott & Arroniz 2006)

2.7.2 Innovation Matrix

Satell (2017) has created an Innovation Matrix (Figure 16) which helps companies to identify the right type of strategies to solve a problem. Satell (2017) explains that by asking two questions they are able to identify the strategy: How well can we define the problem? and How well can we define the skill domain(s) needed to solve it?

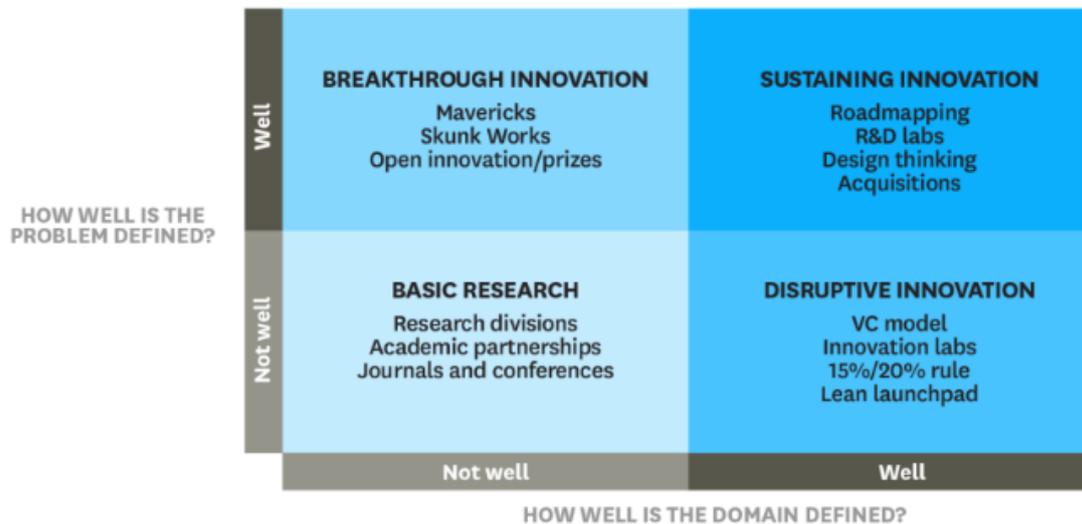


Figure 16. 4 Types of Innovation (Satell 2018)

Most innovations happen in sustaining innovations because companies are constantly seeking better solutions and actions on their current situation. Figure 16 shows that for example road mapping or traditional R&D are the most effective methods to find solutions. (Satell 2017)

Problems may be well defined but very hard to solve and then it is important to find unconventional skill domains which can help to solve the problem. Open innovations can find solution to this kind of problems because of the diverse skill domains. (Satell 2017)

Disruptive innovation is needed when company notice that the competition has changed because of technological or market changes. Then companies are offering the best, but they don't anymore have customers. Companies are forced to innovate their business models because innovating and improving products are not helping on the situation. (Satell 2017)

Major companies have resources for basic research, but SMEs rarely are able to do innovation experiments. SMEs still have possibility to reach world-class research by for example contacting local universities. Universities can be valuable resource with scientific talents. This way SMEs can compete on markets that are highly competitive. (Satell 2017)

2.8 Future of Innovations

Companies are facing demanding global competition, new market structures, real-time business and changing demands from customers, business partners etc. Today the meaning of innovation is to create strategic options for company to survive on demanding

and changing environment and conditions. The role of innovation has changed during the years because in the past innovations were seen only as developing new ideas. (Skroupa 2017)

For surviving in the competition SMEs must create more closer relationships with their customers by using technology. Technology makes easier to develop the product and services towards the current needs of customers. Smarter working technology makes possible to modify processes and this way increase agility and efficiency. Technology helps supporting skilled employees which effects on easier working methods and boost towards creative thinking. (Ricoh Finland Oy 2018)

According to a study published by Etila a Research Institute of the Finnish Economy, public research and product development (R&D) funding would be preferable to small business regardless of the age. Funding shouldn't be focused only on start-ups. Small companies are the most efficient to innovate and to spread new skills to the economy. Small companies have better possibilities to do quick changes and ability to adapt changes faster than big market leaders have. The study showed when comparing small businesses that more than ten years of steady market position companies were able to turn innovation opportunities into sales even faster and more efficiently than younger companies. The research showed that not only young companies or star-ups are innovative. Based on the research the size of the company is the key for efficient innovativeness not the age of the company. (Pietarila 2017)

The future development and growth opportunities of companies are largely determined by company's success in innovating their products and business. As a research and development activity, Finland has always been one of the top countries when innovations have been compared internationally. Sharing the knowledge and spreading the reforms are cornerstones of innovations. It is common that developments and innovations are done together. Companies operating in Finland have reported innovation cooperation with different types of partners more than other EU countries on average. In Finland common cooperation on innovations are company's competitors and the higher education sector e.g. Universities. (Moilanen, Niemi, Nurmela, Paakki, Rautio, Rouvinen, & Viita 2017)

3 NETWORKS

“Networking is life skills and social skills combined with sales skills.” – Jeffrey Gitomer

3.1 What network means?

Networking is a process where company’s knowledge, know-how and values are combined for adding more value to actions. Networking is strategic companionship that is deeper and has more layers and levels than normal co-operation between companies. (Toivola 2006, 17)

Nobel prize winner Linus Pauling has said: *“The best way to have a good idea is to have a lot of ideas”*. In the last years, companies and people have become more specialized to marketing, organizations or products. Diverse networks can offer different views to developing and creating new issues. In networks participants can trade their information or skills with others who have different experience and knowledge. In networks it’s possible to receive and provide unique resources. Networks have power to spread the information from another to another. When networks have diversity from different expertise areas and positions it’s possible to use this knowledge strategically way towards success. (Uzzi & Dunlap 2005)

Large and wide network gives possibility to increase process efficiency and pathways to new business areas and this way to increase whole competitiveness. In the end of 90’s companies started to integrated business processes also across business boundaries. Term business networking was born. Today businesses are looking relationships for design models engineering, implementation and development of IT -supported business relationships. (Österle, Fleisch & Alt 2001, 56,76)

Networking creates new ways of working to each partner. Members on the network are sharing the risk but also the competence when creating new innovations. Network makes possible to make the innovation work that would not be achieved separately. There is possibility to connect different partners across the business networks. These interactions make possible to new paths to expand mutual value in networks. (Ramaswamy & Guillard 2010,96)

Networks between business are like relationships between people because things don’t happen without both sides working on behalf of the relationship. These efforts may take many forms which would not be possible without support from both partners. These part-

nerships can be close, complex, productive, troublesome, calm or stormy. (Ford, Gadde, Håkansson, Lundgren, Snehota, Turnbull & Wilson 1998, 8-9)

3.2 Business network types

It is important to know how the network works. When network is working on horizontal it means that companies are side by side creating new business. In a vertical network the companies are not side by side because they are trading with each other. (Vesalainen 2004, 194)

Österle, Fleisch and Alt (2001,78-79) defines that networkability is the internal and external ability to cooperate as well as the ability to rapidly and efficiently establish, conduct and develop IT-supported business relationships. There are several objects on business that can be transferred suitable for different networks (figure 17):

- Networkable product and services can be changed rapid and inexpensive to different partners or even integrate to other products.
- Networkable processes can be provided without any extra expenses for corresponding processes. Example of automatic requests when stock levels are falling etc.
- Networkable information systems can be linked to other information systems without extra costs. This considers electronic data interchange between business partners.
- Networkable employees are the spirit of personal networks. They are looking after the customer during the whole interface and maintain the relationships between different partners. Networkable employees understand the meaning of win-win situation.
- Networkable organizations are adapted quickly and without extra costs to new market requirements. Examples on these are fast created temporary inter-company teams or relocation of business processes or joint execution of processes (shared services).
- On networkable company cultures the cooperation is promoted with arguments open to change and trust between business partners instead of mutual costs.

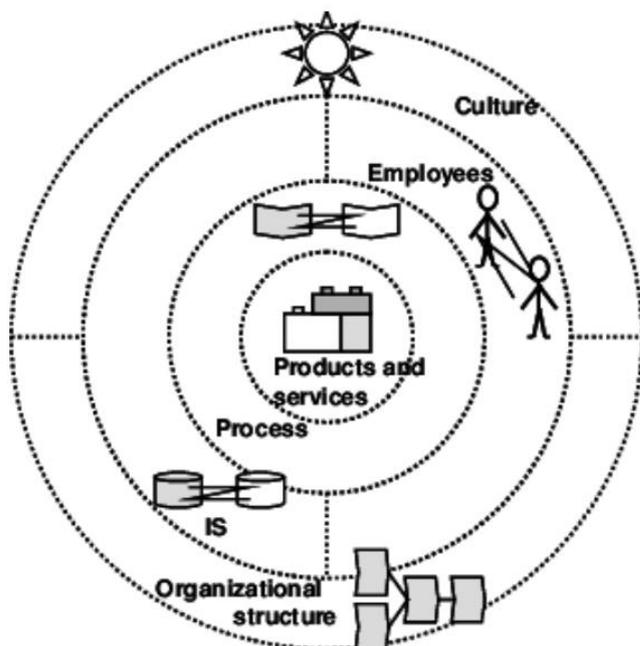


Figure 17. Design objectives of Networkability (Österle, Fleisch & Alt 2001, 79)

Uzzi and Dunlap (2005) explains that when building a network, it is important to understand the power of shared activities. The building starts by recognizing that all shared activities cannot be equally potentially. In networks all participants may work in different ways however they all are acting towards the same goal. When building a network, the idea is to join in the same club with others because it's easier to cope together in the world than as individuals. For achieving a powerful network, it is important to create it with trust, diversity and brokerage. With network it's possible to get and share information and new ways of thinking of own products or services. (Uzzi & Dunlap 2005)

Usual social networks are like different clusters and the they all have connections with the creator. These clusters are working separately and there is no other connection between them than the creator. However, if there is broker between different clusters there is link between every cluster. Brokers are the ones who has wide existing networks and they are able to make connections between different clusters. Figure 18 shows how broker connects different clusters to each other and creates a companywide network. (Uzzi & Dunlap 2005)

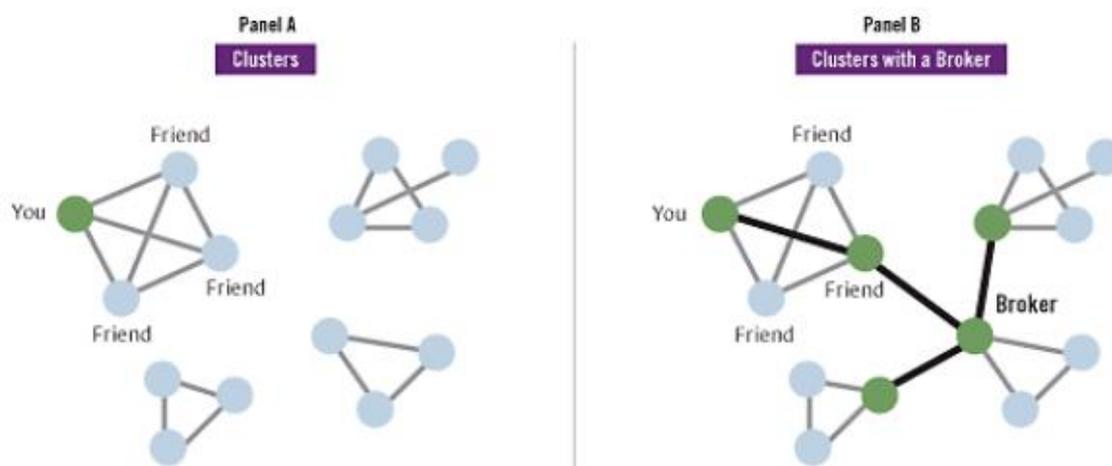


Figure 18. Networks with and without a broker. (Uzzi & Dunlap 2005)

3.3 Strategic alliances

In strategic alliances companies cooperate towards mutual need and goals and share risks to reach the objective. Together with other companies it is possible to reach access to resources which would be hard to get by themselves. Alliances improve the possibilities to create new products, bring in new technologies, access to new and other markets and reach possibility to survive in the world markets. (Trott 2010, 115)

Business is slowly started to see the possibility of strategic alliances. Traditional way of doing the business is go-it-alone perspective where business environment is that individual companies are in competition against each other. With strategic alliance companies can act together. (Trott 2010, 117)

There can occur intra-industry or inter-industry on strategic alliances. On intra-industry alliances same industry area companies may start cooperation for example on developing new technology. On inter-industry alliances there are wide range of companies on variety of industries. (Trott 2010, 119)

Trott (2010, 119-123) has defined six types of strategic alliances:

Licensing

With licensing it is possible to acquire from other company's technology.

Supplier relations

Many companies have close relationships with their suppliers. These close relationships can be an informal alliance and usually these causes cost-benefits to supplier. Cost bene-

fits may be achieved when supplier modifies a component for fitting better on company's product or reduces the R&D costs based on the information received from the supplier and their product. Material costs can be reduced by changing delivery frequencies as well as administration costs with more integrated information systems.

Joint venture

Costs and benefits of R&D research projects would be shared with joint ventures. Joint ventures are usually a separate legal entity.

Collaboration (non-joint ventures)

Collaboration is more flexible and can be extended the cooperation over the time. Flexibility is possible because there are no legal entities involved. Usually collaborations occur in supplier relationships but also many universities work closely with local companies to achieve their common interest on different research's.

R&D consortium

Where several companies come together to undertake large scale activity it is called consortium. In R&D consortium companies share the costs and risks of research, expertise and equipment, performs pre-competitive research and sets standards.

Innovation networks

Network can be temporary web which gives companies possibility to join on strategic partnerships. On networks companies may act quickly together and this way tackle the problems fast together.

3.4 Benefits and risks

3.4.1 Benefits

Today only few can compete alone in a global and rapidly changing world. This is the reason when networks can achieve success among others. By networking it is possible to make use of other companies' strengths and find know-how and resources. (Toivola 2006, 8-9)

According to Fang, Francis and Hasan (2018) the research published the Journal of Corporate Finance showed that the diversity of connections matters on companies' value. Also, innovations raise the company value. Diversity of social networks are influencing on the leader's way to grow their companies. (Fang, Francis & Hasan 2018)

With diverse networks there is possibility to find new ways of thinking thus different people can give new viewpoints, insights, resources and experiences. For making more diversity network it requires actions for example finding time for meeting new people. When network consist people from different backgrounds, roles and business units, the solutions for the problem may be something else than thought before. It may not be the obvious one and it might be something new or even multiple ways better and different solution than before. (Naukiokas 2018)

Networks have power to determine which ideas are successful and which will break through. According to Uzzi and Dunlap (2005) there are three advantages on networks which are private information, access to diverse skills and power. When making decisions there is possibility to use public and private information.

Today everyone has access to public information because of the internet and that is the reason why it's not offering competitive advantage as it was before. Private information instead has been collected from various connections and it is unique information that the public domain cannot offer. The value of private information is based on the trust that is existing in the network relationships. The trust should occur in actions of both sides, all participants should share the information in mutual way. (Uzzi & Dunlap 2005)

Networks changes the forms of entrepreneur and for the success the networks are the key factors. Our industrial society is changing to network society. Network society can be called as global society where internationalisation, human capital and creativity are highlighted. (Toivola 2006, 8-9)

According to Toivola (2006 8-9) companies have number of reasons for networking and with networking they are accomplishing for example:

- Cost benefits
- Business growth
- Knowledge
- Information
- Flexibility
- Responsiveness

For SMEs the reasons for networking is usually the need for marketing and customer relationships. When networking and co-operating there is possibility to achieve new markets, which are unreachable alone. Networks give possibility to focus on the main product or service the company knows best. (Toivola 2006, 13)

The competitiveness of the networks is based on the accompany of product, service or know-how, business scale, specialisation, speed and flexibility. For example, network itself is a marketing channel and there is no need for dividing small resources on marketing. (Toivola 2006, 13)

Specialisation and uncertainty have growth the competitiveness in the markets. Strategic networks have expanded to co-operation of different industries. On traditional industry the network co-operations focus on production and marketing when high technology companies focus on development. This means that also the level of innovations changes between different areas of the industry. High technology businesses innovations are lifeline when old fashion businesses invest on resources and costs. (Toivola 2006, 13)

Networks don't create only good and new business opportunities, networks provide also support, feedback, resources and information. It's not easy to create networks because usually it means that manager must reach out of his/hers comfort zone. Networking provides contacts that are objective or give strategic counselling and increases the knowledge on different areas. Best way to achieve best benefits from networks is to give and take every time there is a chance even there is no need for help. Networking is a skill which can be achieved by practicing and it takes time but also rewards. (Ibarra & Hunter 2017)

3.4.2 Risks

Networking is a necessity and it leads towards business opportunities, wider and deeper knowledge, better capacity to innovate and greater status on authority. Even networking gives much it's usually something that people are avoiding doing because it takes time and pushes out of comfort zone towards awkward situations etc. (Casciaro, Gino & Kouchaki 2016).

According to Uzzi and Dunlap (2005) there may be pitfalls among the networks and best way to avoid them is by diagnosing the networks. Diagnosing means that networks should be determined, what types of networks there are and how these networks helps on moving forward. There is need for determine how and which kind of networks are needed and how to build those needed networks. Diversity of different participants on networks is important and mapping all networks gives information about the network structure. The information is for example how diverse the network is or how participants are thinking on new ways of working, new products etc. When network is enough diverse there is possibility to innovate and think different sides of the innovation.

When companies are too focused on their main responsibility and key role in the network, they cannot be part only in one network. If companies don't have any other networks, there may not be any solutions for survival if some reason the networks falls apart. It is important to find different networks that requires the specialties the company can offer to them. This way there are different paths for successful business and the business is not relying only in one source of cooperation. (Järvenpää, Partanen & Tuomela 2001, 106-107)

According to Leonardi & Rhee (2018) it is not easy to change network and the key for successful networking is not only who you are talking to but who the people in your network is talking. It's important to stay focused and think who the most useful partner in the network could be. However, there should be diversity in the network, because the need of different knowledge may change during the time.

3.5 Creating networks

Progress of the networks depends on several matters. Möller, Rajala & Svahn (2009, 227-228) summarized few of them:

- **Functional dependency of companies.** When companies in the same network are specialized more and more the reliance is growing and this stabilizes the network. New innovations need approval and co-operation from other companies in the same network.
- **Power structure of companies.** Highly controlled networks are more stable than networks where companies are trying to achieve dominance in the network.
- **Knowledge structure of the network.** On highly controlled and stabled networks the knowledge development and sharing depend on few key companies. Radical innovations are more likely if network has several knowledge-intensive hot spots - groups. Innovations are the result of interaction between organizations.
- **History and beliefs of the network.** Companies inside the network are themselves creating the history and the story of the network. Old alliances, rivalry, co-operation and succeed are part of these stories and history. Beliefs are affecting on the progress of the network, those guide the partnership choices and to strategies.

Casciaro, Gino & Kouchaki (2016) have made four strategies for helping on creating networks or opening the minds towards networking benefits. The strategies are:

1. Focus on Learning. Conversations in your network may bring up new ideas, lead to new experiences and opportunities. These conversations boost the knowledge and skills, networking brings much new possibilities.
2. Identify Common Interest. The most collaborative and long-lasting connections are created when people work together towards common goal that requires contribution from all participants.
3. Think Broadly About What You Can Give. Networking is like a trade and it should be thought in that way because when people are thinking how much they can give to the people in their network the networking seems less self-promotional and it is worthy of the time it takes.
4. Find a Higher Purpose. When connecting to others is about overall good for everyone and not only taking to myself it's easier to make connections. It's about motivating the need of networking on higher purpose.

Commonality with other people helps creating networks. For example, in conferences there should be find some way to find commonalities with unknown persons and connect with them in that way. Planned networking meetings differences from conference meetings because there is possibility to research information in advance about each participant which gives surprising edge on the meeting. Conversation starters are important because commonalities create atmosphere of trust and companionship. After finding the commonalities and playing on the same team it's possible to lead the conversation towards business matters. (Clark 2015)

Meeting in person is always better than meetings in phone or in videoconference. Face-to-face meeting helps to create more solid base for possible future cooperation. After commonalities the discussion is easy to steer towards business and for creating the possibilities towards cooperation. According to Clark (2015) it would be good to think is there possibilities to help, how the cooperation would be helpful for both. Networking meetings may create fruitful relationships on both sides and lead towards business deals, new connections to others and even job offers.

There is possibility to create networks without connecting people. It is called inbound networking and the point is to make something that attracts others attention. This way the

ones who are interested enough will seek you out. When sharing something that makes the difference the interest levels are raising, and more powerful people will seek who is that. Sharing own expertise makes people connecting with people who are experts in their own field. When trying to have diverse connections it is important to share for example information about hobbies etc. from something that is closed to own heart even if it's not professional expertise. Time is limited for everyone and everyone are competing for the attention of powerful people. It is easiest way to connect with them by catching their attention and them to come to you. (Clark 2016)

The place in the network is crucial because even well-connected people may not be in influencer role. Below figure 19 shows how the placement in the network matters. The influence of network members is shown in three red nodes in the figure. The red nodes are active in their own networks and with strong active connections they are able to influence on their network. The networks are same in both figures, but figure on the left illustrates how well-connected people can create big illusion by sharing information in their network. (Libert 2016)

How Network Structure Shapes the Majority Illusion

While the network structures in both figures are identical, the placement of active members differs.

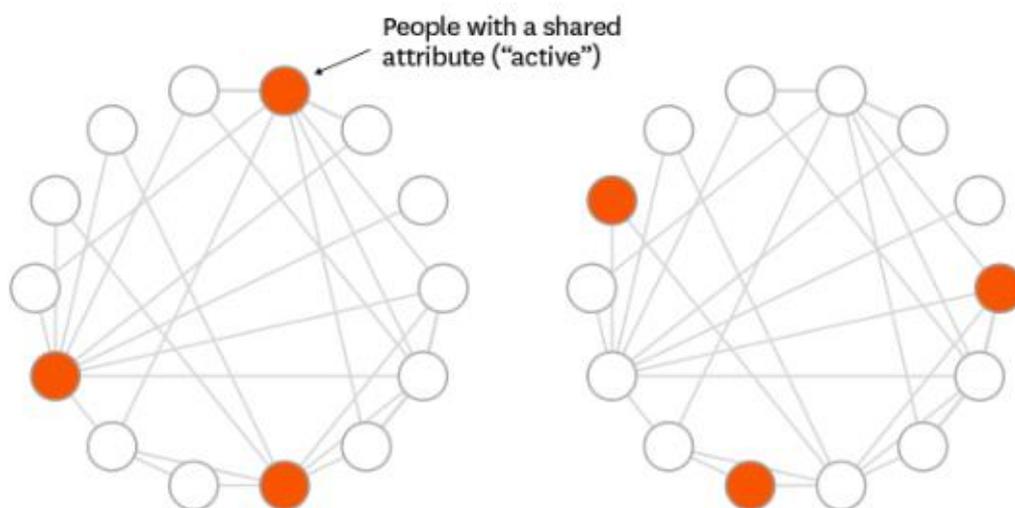


Figure 19. The placement in the networks. (Libert 2016)

4 RESEARCH METHOD AND PROCESS

4.1 Data collecting and process

Interviews to Finnish SMEs were held during middle of June to the beginning of August 2018. Project gave target to reach 20 SME interviews for all countries. In Finland the number of interviews were 16. Interviews were made by author of this thesis as well as students from Häme University of Applied Sciences and project partners. Interviews were recorded and after interviews every interviewer decrypted the interview on a word - document in a Finnish.

After decrypting the interviews, the word -documents were sent to project manager, who sent those to author of this thesis. After receiving the Finnish versions of interviews, they were translated to English and collected in to one excel document. The excel document was received from the main responsibility country of the interviews and after collection the answers, the excel was sent back to them in the project. The excel consist from all questions and comments and summary part of all answers.

The interview was divided in to six areas and first section was about introduction with exact information about interview for example date of the interview, interviewer, company name etc. Section two considered background information about the company with questions about the position of interviewed person and number of employees, generation shift plans, most common cooperation partners etc.

Section three was about challenges and for example what are the advantages and/or disadvantages when company is managed by the owner, challenges on different areas, visions for next five years and wishes for future or for magic fairy as it is on the questionnaire. Section four focused on innovations and especially to non-technological innovations. At first there was questions about innovations overall and about innovations that might have been innovated on the SMEs. After that the questions focused on non-technological innovations and are those familiar or interested to hear more or adapt different innovation types.

Section five was about counselling and questions considered about intermediaries and how often outside counselling are used in the SMEs interviewed. The questions considered also about most valuable support outside the company and what kind of counselling was seen positive or in negative way. The last section six was closure and interviewer gave chance for the participants to give tips and wishes for the new counselling tool.

Because the aim of this thesis is to find out the current situation of Finnish SMEs in innovation levels and networking. The aim is also to find out how Finnish SMEs see their future among innovations and are current and future innovativeness linked to networks. Are networks linked to financial situation? This thesis focuses on questions related to innovations and networks. Questions are explained on part 4.3 Measures.

4.2 Participants

There were 16 respondents in the interview. Of the participants 15 were owner-managers and one was a manager. None of the participants were staff or on other positions in the companies.

The figure 20 below shows that most of participants have less than ten employees or ten to 25 employees. Three participants had 25 to 50 employees, but no one had more than fifty employees.

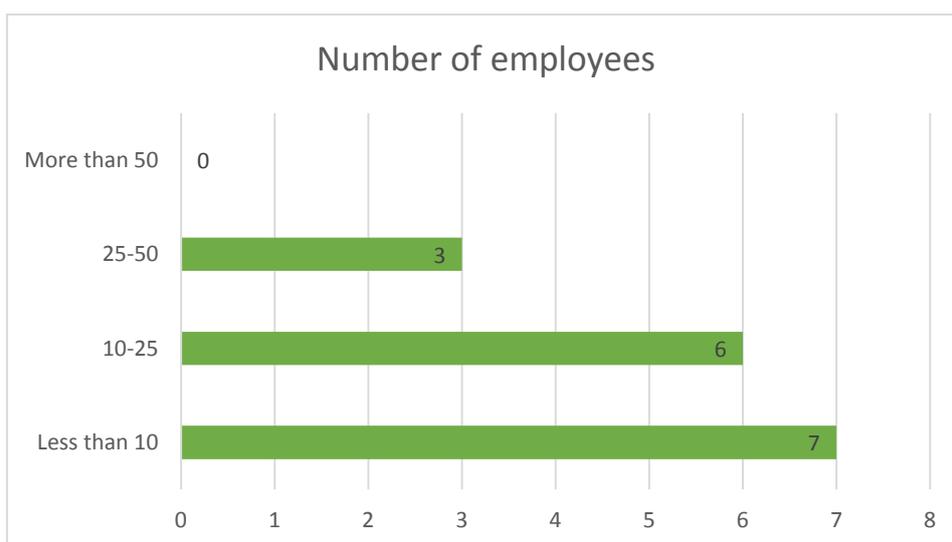


Figure 20. Number of employees.

When asking about the active years of the companies, 12 announced their activity years to be more than 20 when one participant active years were 10-20 and three had 2-5 active years behind.

Some of the participants informed their exact active years and figure 21 shows that participants had companies where oldest had 62 years of activity and youngest had two years of activity. Figure 21 shows the timeline of exact active years of participants who announced their exact years of activity. Years are collected to four different categories less than 10 years, between 10-20 years, between 20-50 years and more than 50 years.

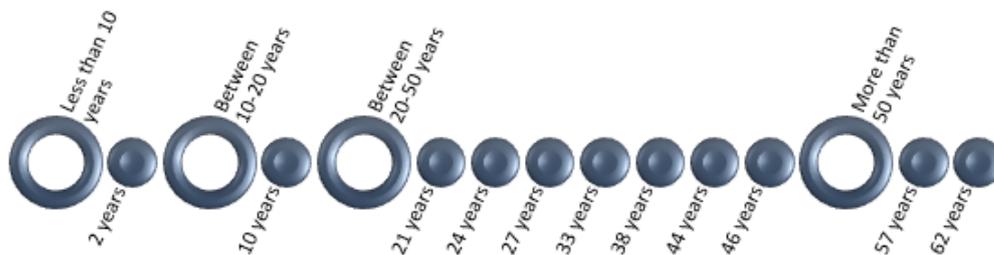


Figure 21. Exact active years.

For the question on further information about their SMEs the participants told for example:

“My father has started the business.”

“The company was founded in 2015, activities started to work full time in September 2017.”

“We have family business that we started 30+ years ago.”

“Family-owned business, soon 40 years.”

“I’m second generation entrepreneur.”

The figure 22 below shows participants plans for generation shift or finding successor in the next five to ten years. Most of participants did not have any plans for generation shift/finding successor in near future.

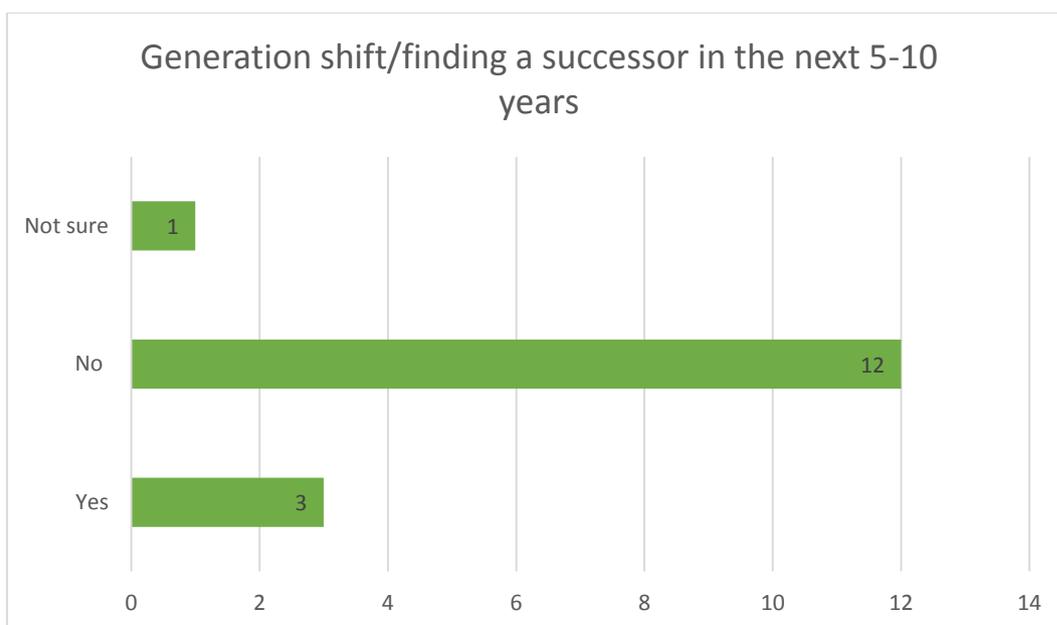


Figure 22. Plans for generation shift/finding a successor in the next 5-10 years.

On further information participants told that generation shift had been made few years ago or there are no one to take the lead on the company and selling or shutting down is the only choice.

“Ownership change occurred a year ago.”

“We had generation shift a year ago.”

“Change has happened from father to son”

“Next owner has been found over ten years ago”

“No ideas on generation shift because here are no one, who would lead this. Solution is to either sale to someone or to drive down business. The successor should believe in future and be hardworking.”

“Generation shift planned to happen in a bit more than 10 years from now”

Answers on question about company wellbeing can be seen on figure 23 where number 5 was excellent and number 1 for poor company well-being. Thirteen said company well-being is excellent or good. No one estimated well-being to be poor.

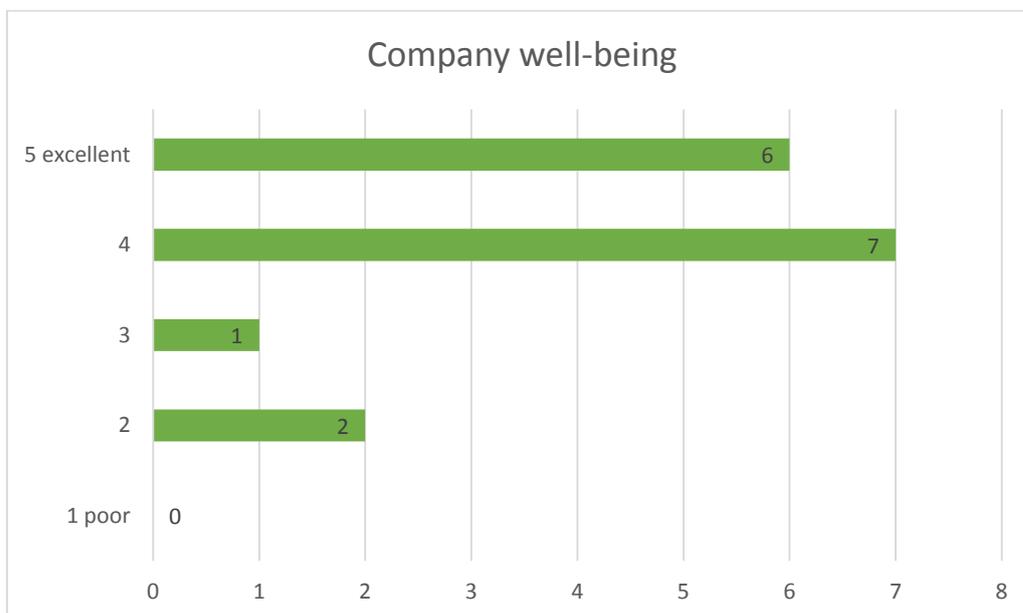


Figure 23. Company well-being.

4.3 Measures

Measure were based on interviews including innovations, networks and financial situation described below. Some of the questions were open ended while some questions were answered using a fixed scale.

4.3.1 Networks

There were two questions on networks. First respondents were asked to evaluate general how close their cooperation was with major companies, other SMEs, intermediaries/business organizations, R&D/Universities, (vocational) schools and public support organizations/agencies using 5 -point scale (1=no cooperation, ..., 5=very strong cooperation) (Questionnaire appended, see question 5).

Second respondents were asked to list most important cooperation partners/institutions/stakeholders except customers for their business. (Questionnaire appended, see question 6).

4.3.2 Innovations

There were five open and four questions with fixed answer options on innovations. The respondents were asked:

- 1.) If innovation is a topic in their companies because in last few years policy makers have highlighted that European companies need to improve their innovation capabilities. Do they have innovation strategy, or does they feel that innovation is just like a buzz -word? (Questionnaire appended, see question 12).
- 2.) If they have created new or significantly improved methods of manufacturing for producing goods or services in last five years. And if they had these kinds of improvements, who developed those; was the owner himself, internal staff, external designers, agencies etc.? (Questionnaire appended, see question 13).
- 3.) About the variety of innovations existing, from product innovations, technological and non-technological innovations. Participants were asked if they were aware of the different forms and does those play a role in their company's strategy and is one important to their company? (Questionnaire appended, see question 14).
- 4.) If they have any experience or interest for non-technological innovations for example new organisational method in the company business practices, workplace or-

ganisation or external relations that has not been previously used. (Questionnaire appended, see question 15).

- 5.) If they have experience or interest for non-technological innovations for example new marketing concept that differs significantly from existing marketing methods used before. (Questionnaire appended, see question 16).
- 6.) To estimate the current non-technological innovation level in their company to scale 1-5 (1=very low, ..., 5=very high). (Questionnaire appended, see question 17).
- 7.) To evaluate their innovation increase in the next five years to scale 1-5 (1=no change, ..., 5=get very innovative). And if participants wanted to increase their innovativeness, they were asked to tell why they want to raise the level. (Questionnaire appended, see question 19).
- 8.) To evaluate the risks among competence, acceptance of staff, acceptance by customers, data security and infrastructure when implementing non-technological innovations into the company on scale 1-5 (1=low risk, ..., 5=high risk). (Questionnaire appended, see question 18).
- 9.) To evaluate which area from business partners, customers, staff/Human resources, cost structure, key services, key resources, logistics, manufacturing to marketing would be most effected of a non-technological innovation in their company from scale 1-5 (1=very low, ..., 5=very high). (Questionnaire appended, see question 21).

4.4 Results

4.4.1 Current Situation in Non-Technological Innovations and Future Non-Technological Innovation Plans

Figure 24 shows current status of participants non-technological innovation level. None of participants had very high non-technological innovation level but 11 of 15 participants reported high or quite high level on non-technological innovations.

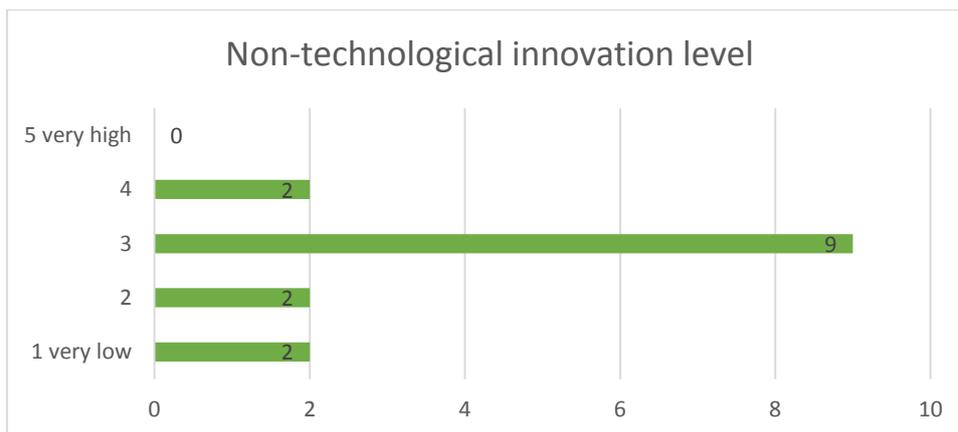


Figure 24. Non-technological innovation level.

Innovation increase in next five years on all participants is described on figure 25. Three of fifteen participants were not planning to have any increase in innovations. Ten of fifteen, however, were planning to have at least medium or significant change in their innovativeness.

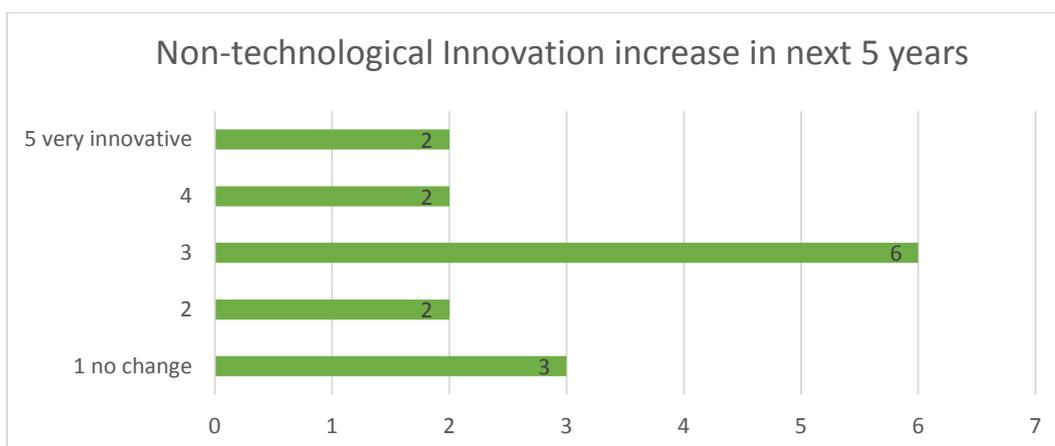


Figure 25. Non-technological innovation increase in next five years.

Next participants (n=15) were categorized on four groups based, a) on their current non-technological innovation level and b) on their future plans to increase non-technological innovations in the next five years. Current situation and future were categorized to low/high and no change/very innovative groups. Low and no change groups reported that their current non-technological innovation level and they don't have plans for increasing their non-technological innovation level in next five years (answers on scale 1-2).

This yielded four groups (see figure 26) 1.) No non-technological innovations and no plans to increase non-technological innovations in next five years (n=1), 2.) No non-technological innovations but plans to increase non-technological innovations in next five years (n=3), 3.) Non-technological innovations but no plans to increase non-technological innovation level in next five years (n=4) and 4.) Non-technological innovations and plans to increase non-technological innovation level in next five years (n=7).

Among the SMEs, four had low current non-technological innovation level but three of them had plans to increase their non-technological innovativeness. Overall in next five years 10 of 15 participant SMEs have plans to increase their non-technological innovativeness.

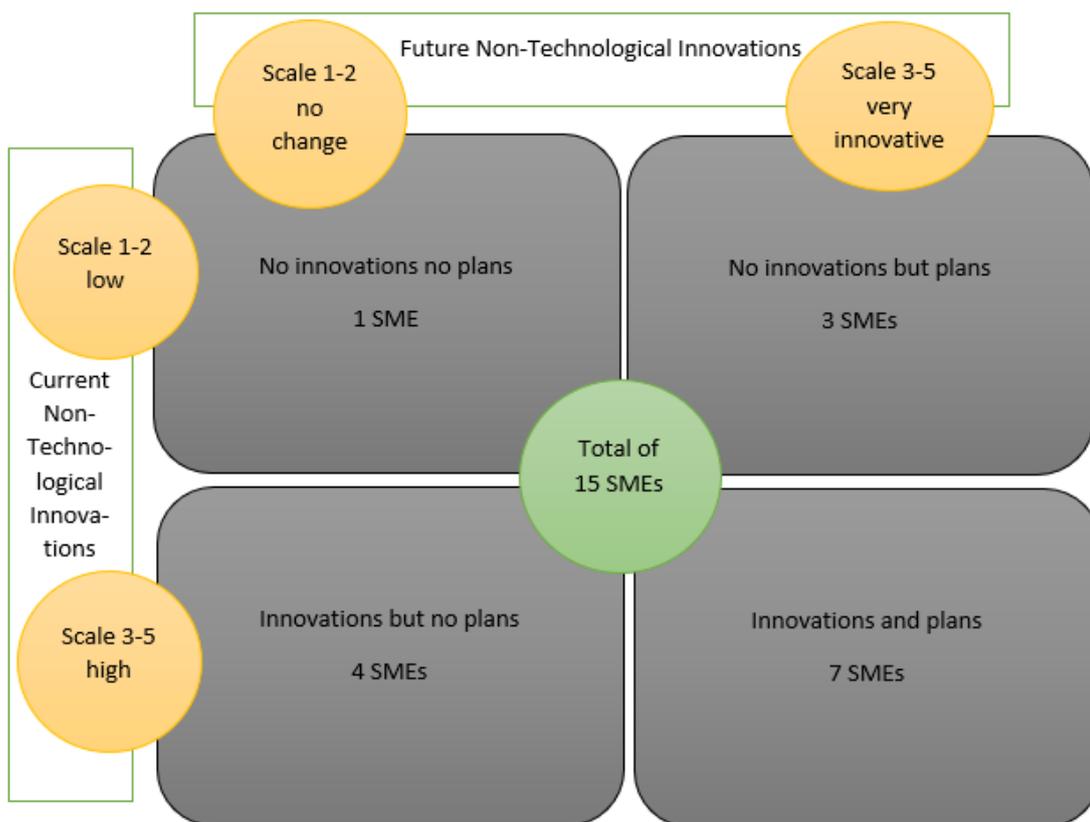


Figure 26. Grouping based on current non-technological innovation level and future plans to increase non-technological innovations.

Group 1: No non-technological innovations no plans to increase non-technological innovations in the future

Group 1 included only one responded SME that has low non-technological innovation level and no plans to increase their non-technological innovativeness in next five years (figure 27).

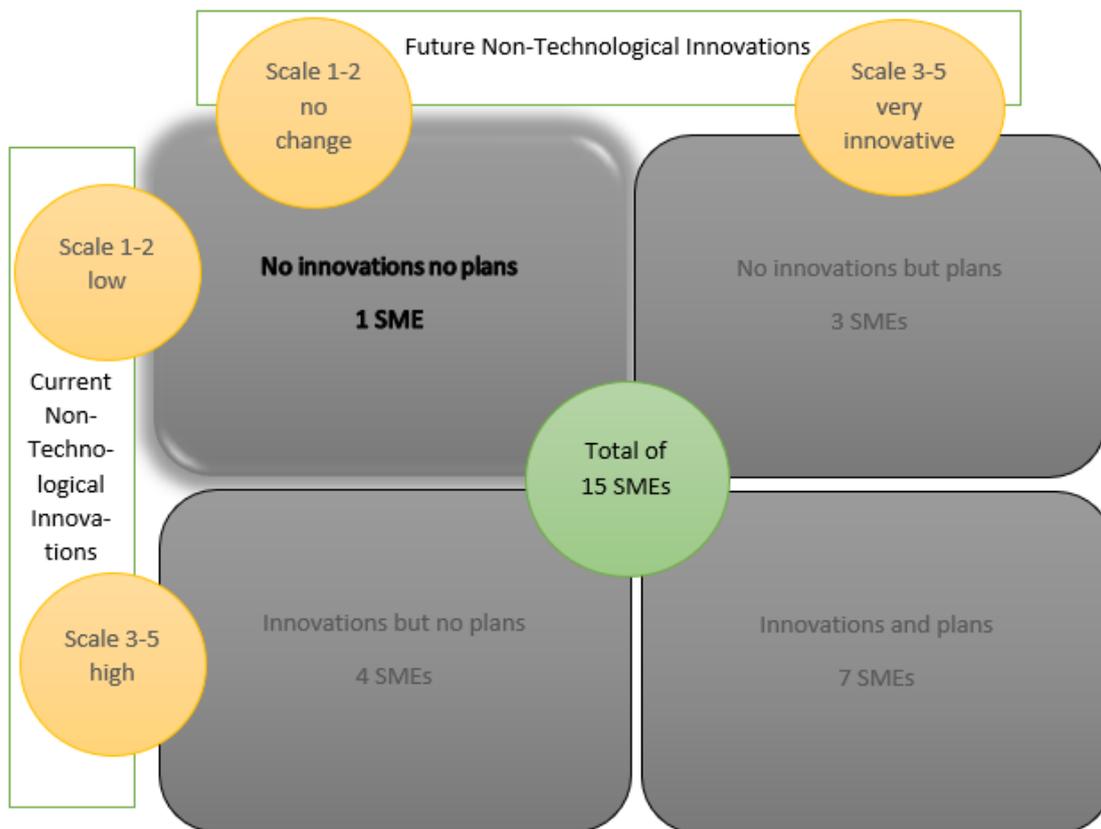


Figure 27. No non-technological innovations no plans to increase non-technological innovations -group.

In the open-ended questions on innovations, the Group 1 participant that had low level of non-technological innovations and has no plans to increase level of non-technological innovations saw that innovations are not important to their business and innovations do not play any role in their company. The only plans for increasing innovativeness was to improve their customer service more customer-oriented which would help them to increase the number of customers.

"I do not think innovation is so important, at least for our business."

Group 1 participant did not have any knowledge about different innovation forms and those were not seen important or meaningful matters. Thought the different innovations forms were not seen important the marketing innovations were seen interesting because they had not made any marketing and these new ways of marketing would help them to increase the customer base.

"There is no experience, but this sounds interesting. For now, we have not marketed anything at all so new marketing methods could be useful to increase our customer base."

Group 2: No non-technological innovations but plans to increase non-technological innovation level in future

Group 2 had three participant SMEs that had low level of non-technological innovations, but they wished to increase their non-technological innovativeness in next five years (figure 28).

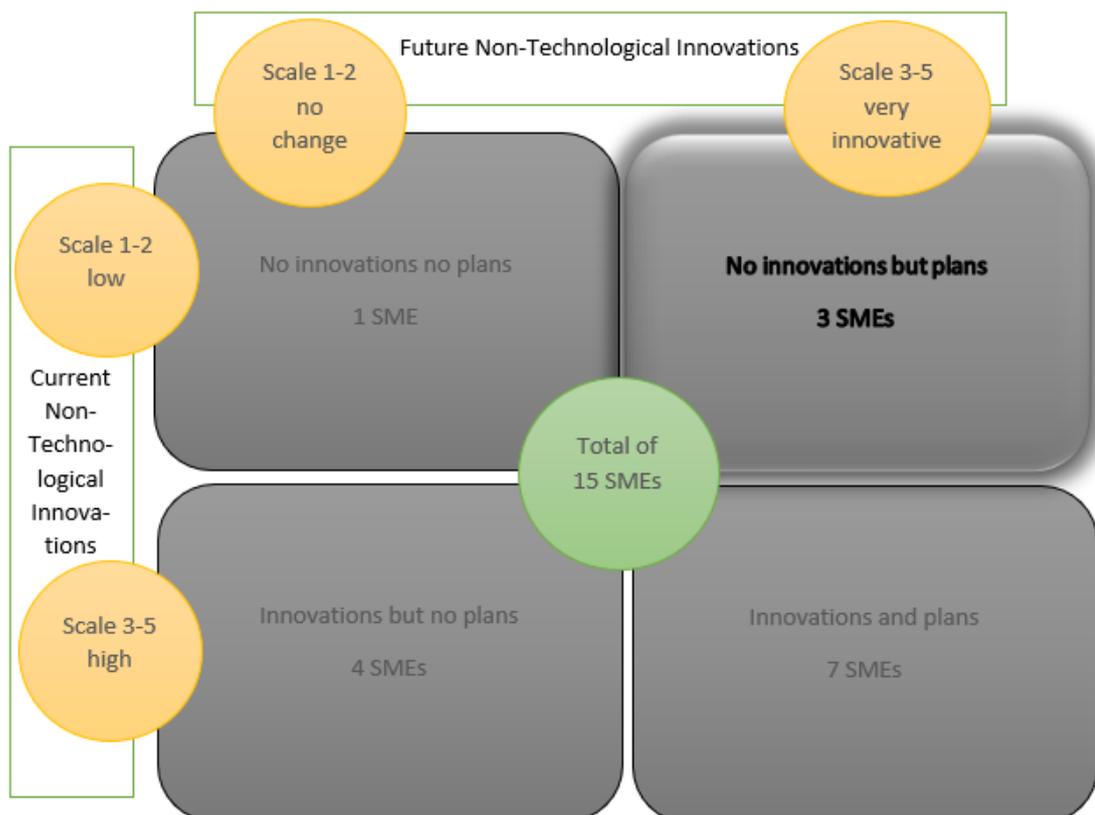


Figure 28. No innovations but plans -group.

In the open-ended questions the participants said that innovation is not only a buzz-word but they did not have separate innovation strategy. Technological innovations were seen more important than non-technological innovations and lean philosophy and customer service were seen more important than innovations.

“It is not just a fashion phenomenon, but we don’t have a strategy for innovation.”

Two participants inform that they have got the best deals creating new technical innovations when they were inquired if they have created any new or significant improved methods for manufacturing the product or services. One has had own designer however now they are using external services on designing.

“Formerly we had a designer in the company but now we have used in the external services for the past few years.”

Group 2 respondents had knowledge of different innovation types, they saw digitalization important for example to marketing innovations and they had used for example social media and Google for digital marketing. Also, Lean philosophy was seen for the base for all innovations.

“I’m quite aware. There is no straight competition or similar products in the world and that makes it difficult to show customers why they would need our product.”

“Trying to use digital marketing as much as possible.”

Group 3 Non-technological innovations but no plans to increase non-technological innovations in the future

Group 3 had four participant SMEs that saw that they had some or very high level of non-technological innovations today, but they did not have any plans to increase their non-technological innovativeness in next five years (figure 29).

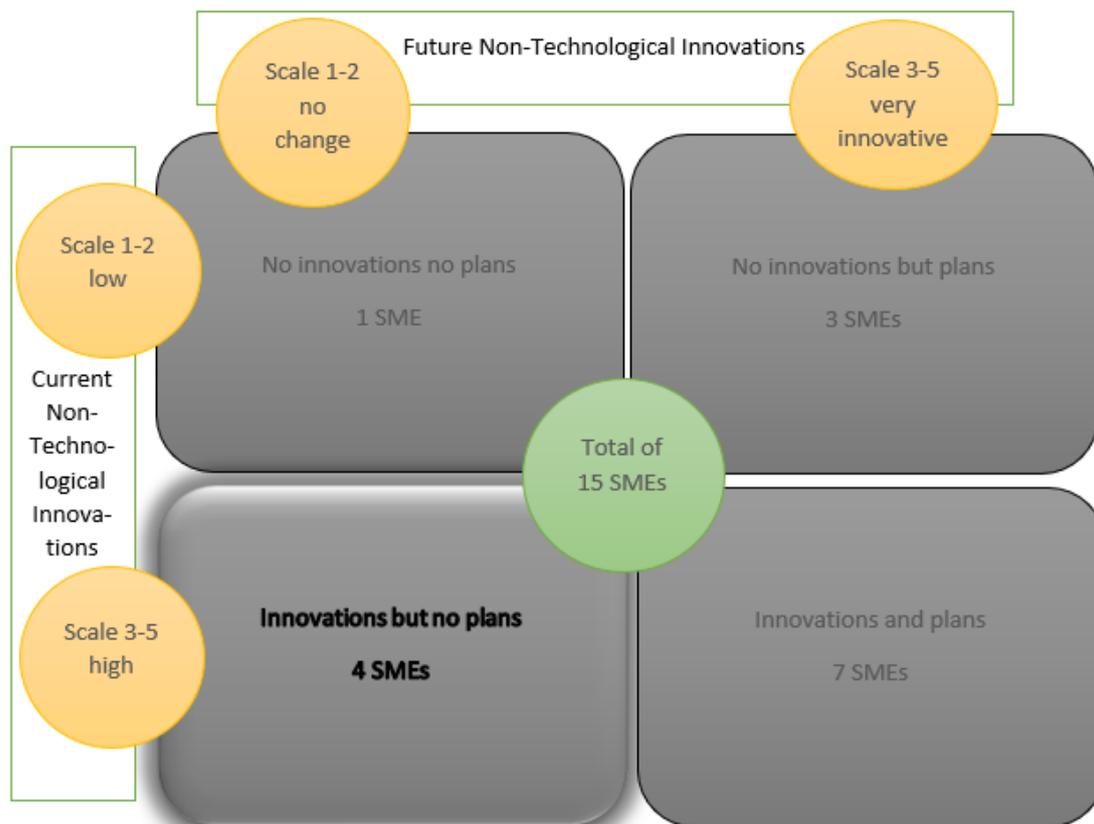


Figure 29. Innovations but no plans -group.

On group 3 two out of four said innovations are important, but they didn't have possibility to innovate because of the standards and regulations on their business field and they must follow the ones who can innovate. The other two participants thought that innovation is only a buzz-word; a fashion phenomenon.

"It's important, we have to trust on the products that we currently have. We cannot much innovate, but we follow those who innovate. Hopefully the leaders have new information about innovations."

None of the group 3 participant SMEs had made any significantly improved methods on manufacturing products or services in past five years. They had knowledge on different types of innovations but these didn't effects on companies' strategies.

"Different innovations do not matter for our company's strategy. We must try to keep up with innovation, not in manufacturing, generally in companies who innovate new. We hope that we meet innovative people and companies on different fairs."

On organizational or marketing innovations the group 3 participants did not have experience. One participant said that she/he is not even interested on non-technological innovations. One had a very small organization where everyone including owner was participating on daily work and that's why there was no knowledge or interest on these different types of non-technological innovations. One participant thought that younger generation tries to improve their sales by using these new marketing innovations and this way they are trying to keep up with the market leaders.

"The young generation grins them all the time, they think differently than I do. That is why I try to follow them because there are new ways of selling. We are trying to keep up on the top."

Group 4: Non-technological innovations and plans to increase non-technological innovation level in the future

Group 4 had seven participant SMEs that estimated they had high level of non-technological innovations and they wished to increase their non-technological innovativeness in next five years (figure 30).

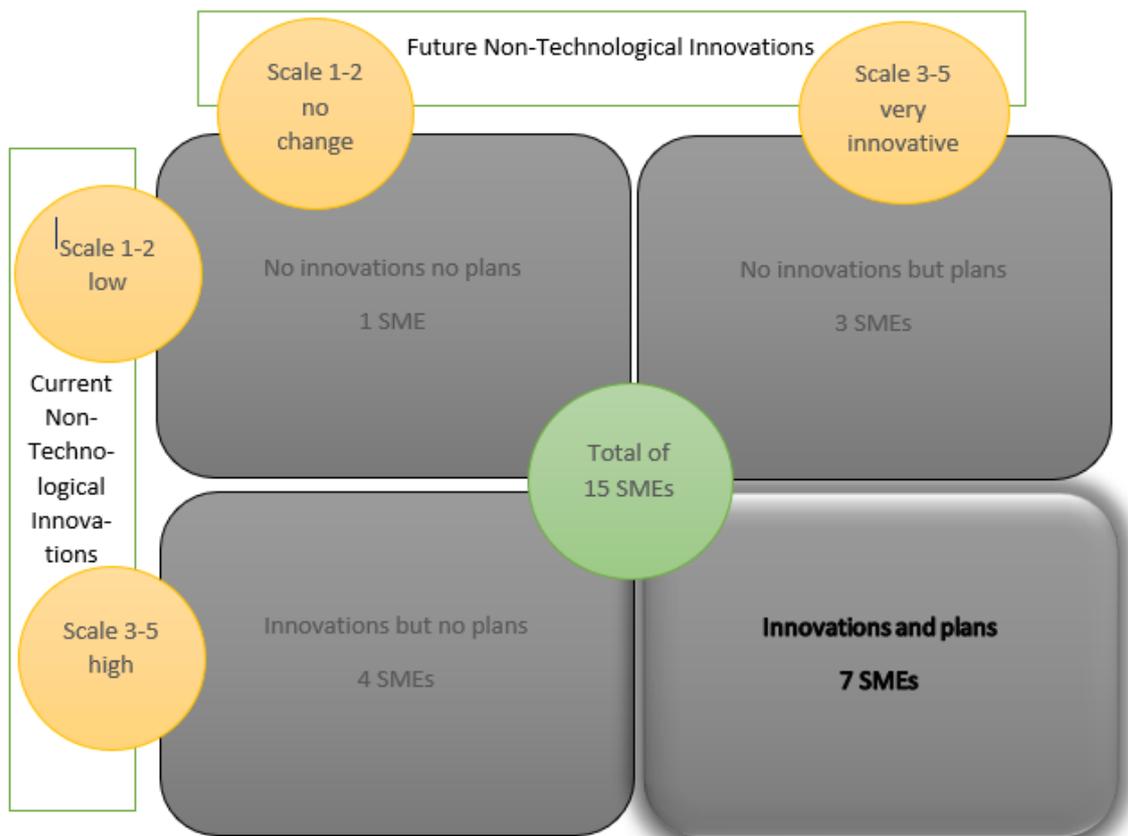


Figure 30. Innovations and plans -group.

All group 4 participants said that innovation is a topic in their company and thought that innovations are important and not only a buzz-word. Two participants announced that they have separate innovation strategy.

“We have an innovation strategy that was conceived few years ago. We are moving from retail to bigger contract work where innovations and setting goals are vital.”

“Our company has innovations and is an important part of our company to be able to stand out from other competitors because the competition is hard in the industry. There is no specific innovation strategy in the company, and otherwise the company uses innovation in other words.”

Generally, on group 4 the innovations during the last five years had been made inside the company by the owner or internal staff, for example production managers. Innovations were described as micro innovations and improvements of internal processes.

“Micro innovations inside the company, but nothing significant”

“Yes, we have, the owner and the internal staff has made the innovations.”

Participants who told they had not had any new or significant improved methods in manufacturing products or services in last five years had unique business and they rarely used existing technologies.

“No, we have not. We act differently than the closest competitors and this creates competitive advantages in certain areas. We use quite little of existing technologies.”

On group 4 three participants had knowledge on different innovation forms and innovations were seen as an important part of the strategy. Innovations were also seen as an important part of business also from customers perspective.

“I’m aware of different forms and innovations are important to the company. Innovations are important also for the customers.”

“Different innovations are familiar and those have a meaning for our strategy. We have paid attention on our sales and marketing. We try to do things different than competitors; for example, in social media.”

Thus, the innovation level was high, and plans were to increase the innovation level in future. However, not all of them knew different forms from product innovations to technological and non-technological innovations.

“I’m not aware. I have never studied or had thoughts on different forms of innovation.”

Knowledge on organizational innovations were variable. Two out of six participants had no experience on the organizational innovations and two of them were interested on this form of innovations.

“Interesting: yes. Development of know-how is important.”

Organizational innovativeness was seen as important, and two participants had experience on organizational innovations in their company.

“Yes, we are constantly developing our work by introducing inspirational ideas openly. For example, working hours, working places etc.”

“Yes, we have streamlined our internal processes quite a bit.”

Marketing innovations were better known and several participants on group 4 used different and new ways of marketing, mainly social media was used as new way for reaching current and new customers.

“We use social media: mainly Instagram.”

“We cooperate with HAMK and we are interested on new and different sales channels. Knowledge for how global marketing can be utilized would be interesting.”

Participants who did not had knowledge on marketing innovations were interested on those and wanted to have more information.

“We are interested in all possible innovations to distinguish ourselves from competitors.”

“There is no knowledge, but it is interesting.”

Innovations vs. Risks

Participants evaluated risks related to non-technological innovation implementing on competence, staff acceptance, customer acceptance, data security and infrastructure. Risks on implementing non-technological innovation were measured on five areas on scale one to five where one means low risk and five high risk.

The figure 31 below shows evaluations from all participants and that six out of fifteen participants evaluated that most vulnerable area was competence. Lowest effectiveness was seen on data security and infrastructure.

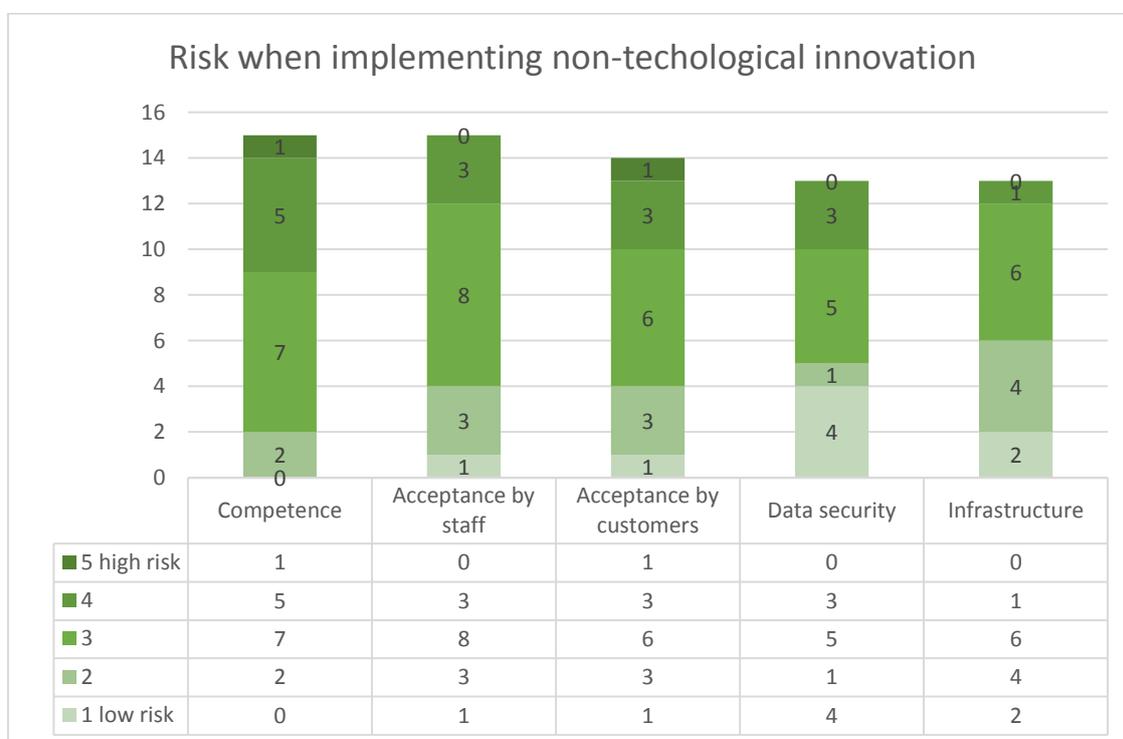


Figure 31. Risk when implementing non-technological innovation.

When comparing innovativeness to risks it shows on figure 32 that Group 1 (No non-technological innovations and no plans to increase non-technological innovations in the future) saw the biggest risks on data security when implementing non-technological innovations. Group 4 (Non-technological innovations and plans to increase non-technological innovation level in the future) saw highest risks on competence when implementing new non-technological innovations.

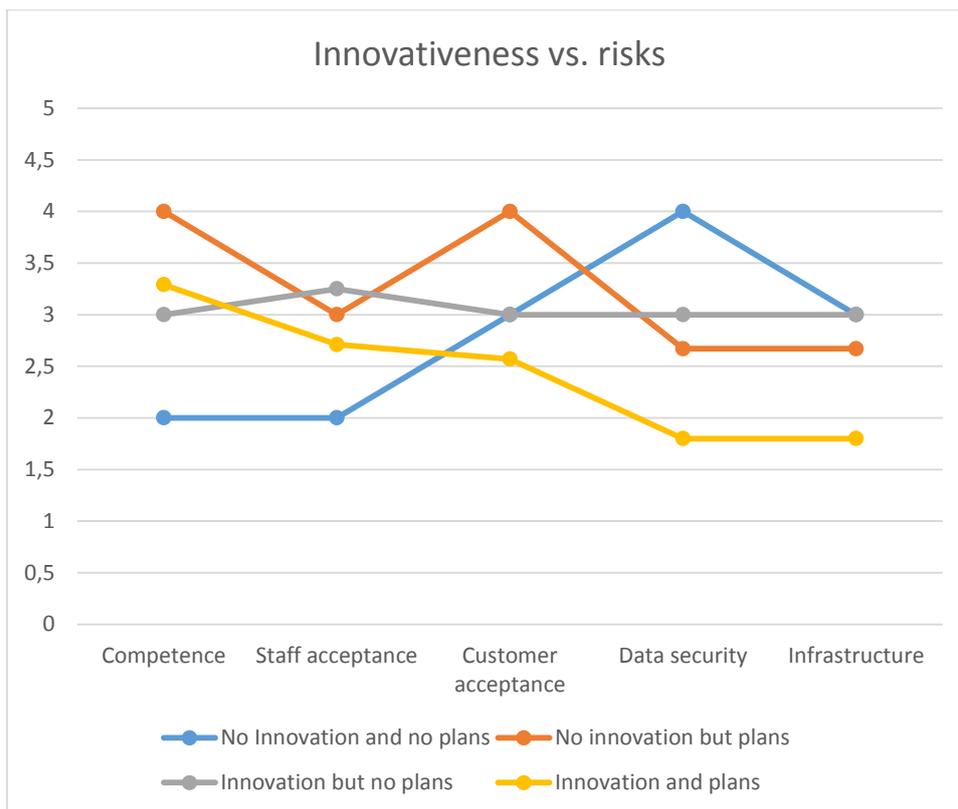


Figure 32. Innovativeness groups vs. risks when implementing non-technological innovation.

Difference and similarities on evaluations between Groups 1 group and Group 4 merge also in figure 33. It shows that Group 1 (No non-technological innovations and no plans to increase non-technological innovations in the future) saw increased risk on data security when non-technological innovations are implemented.

The Group 2 (No non-technological innovations but plans to increase non-technological innovation level in future) evaluated that all areas have highly increased risks when implementing non-technological innovations when participant SME3 evaluated that competence and customer acceptance might cause increased risks (figure 33).

Group 3 (Non-technological innovations but no plans to increase non-technological innovations in future) had diversity on their evaluations and for example participant SME5 did not give risk evaluation on areas competence and customer acceptance (value range=0). Staff acceptance was evaluated risky areas when implementing non-technological innovations among Group 3 SMEs.

Where participant SME14 saw high risks on areas competence, staff acceptance and customer acceptance participant SME13 evaluated only customer acceptance highly risky area when implementing non-technological innovations on Group 4 (Non-technological innovations and plans to increase non-technological innovation level in the future). Participant SME9 was only participant on Group 4 which saw minimum risk on competence other Group 4 SMEs evaluated competence would be risky area when implementing non-technological innovations. Participant SME10 & SME11 did not evaluate risks on areas data security and infrastructure (value range=0).

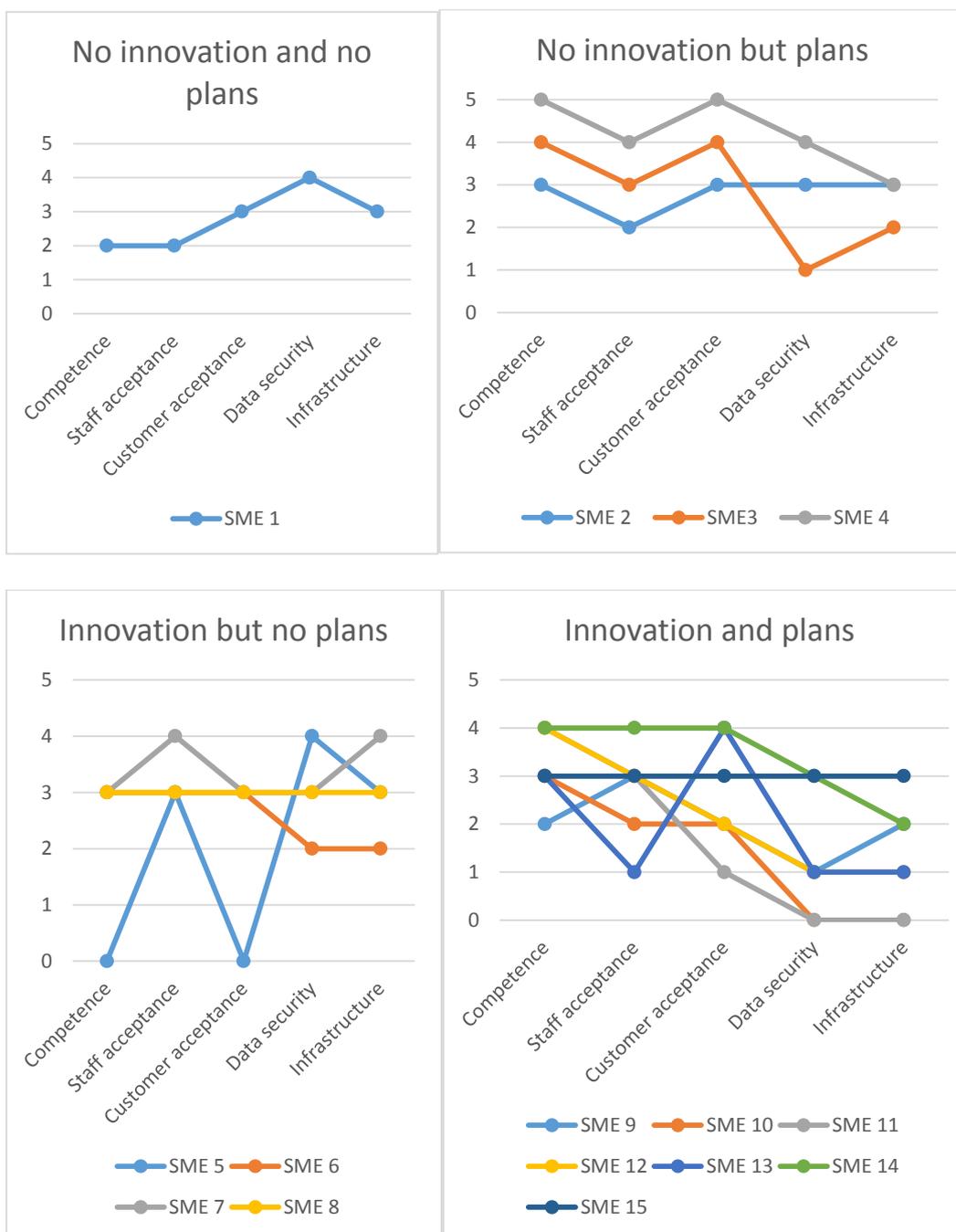


Figure 33. Innovations vs. risks

Innovations and Effectiveness

Participants evaluated non-technological innovations effectiveness to business partners, customers, staff/HR, cost structure, key services, key resources, logistics, manufacturing and marketing. Overall effectiveness of non-technological innovations to business partners, customers, staff/human resources, cost structure, key services, key resources, logistics, manufacturing and marketing is described on figure 34.

Figure 34 below shows that the strongest effectiveness of non-technological innovations was reported to be to business partners, customers and staff/Human resources. To key services, logistics and cost structure the effectiveness was low. For example, twelve responded evaluated that non-technological innovations would affect from affecting to highly affecting to their business partners, customers and staff/HR.

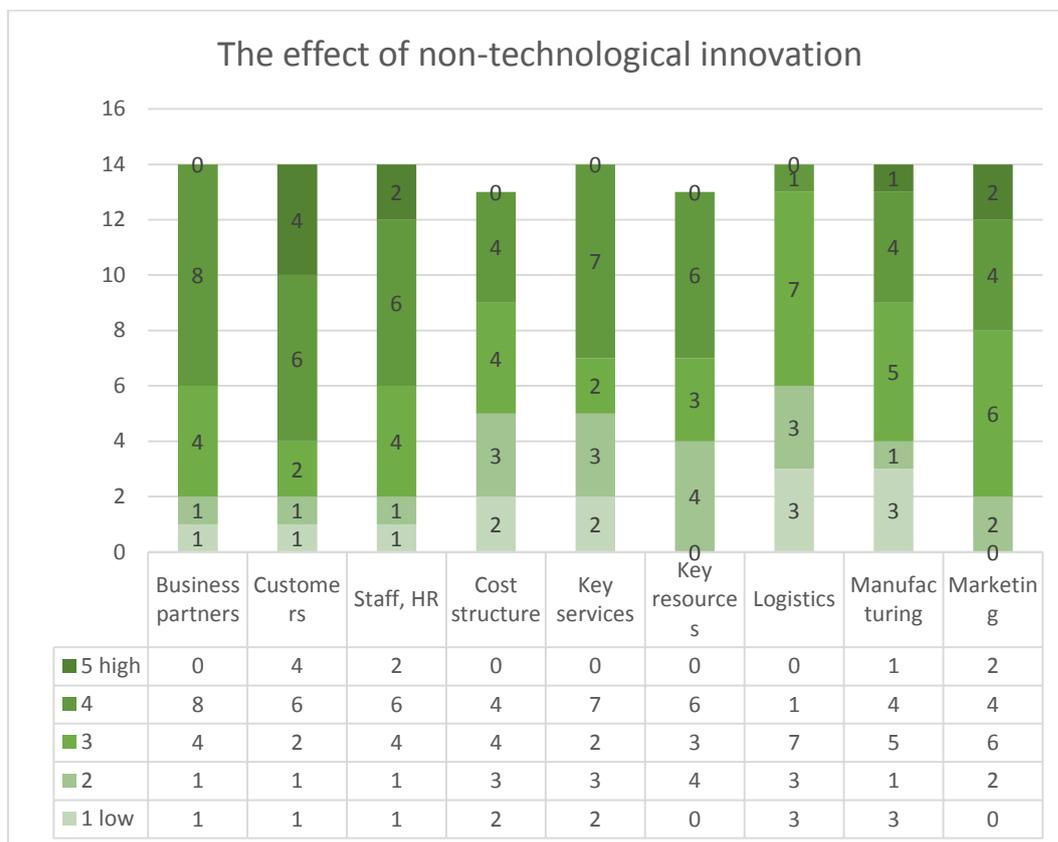


Figure 34. Effectiveness of non-technological innovations.

When comparing innovativeness to effectiveness on certain activities figure 35 shows that Group 4 (Non-technological innovations and plans to increase non-technological innovation level in the future) saw innovations effecting highly on customers. Lowest effect was seen on logistics and manufacturing in the Group 1 (no non-technological innovations and no plans to increase non-technological innovations in future).

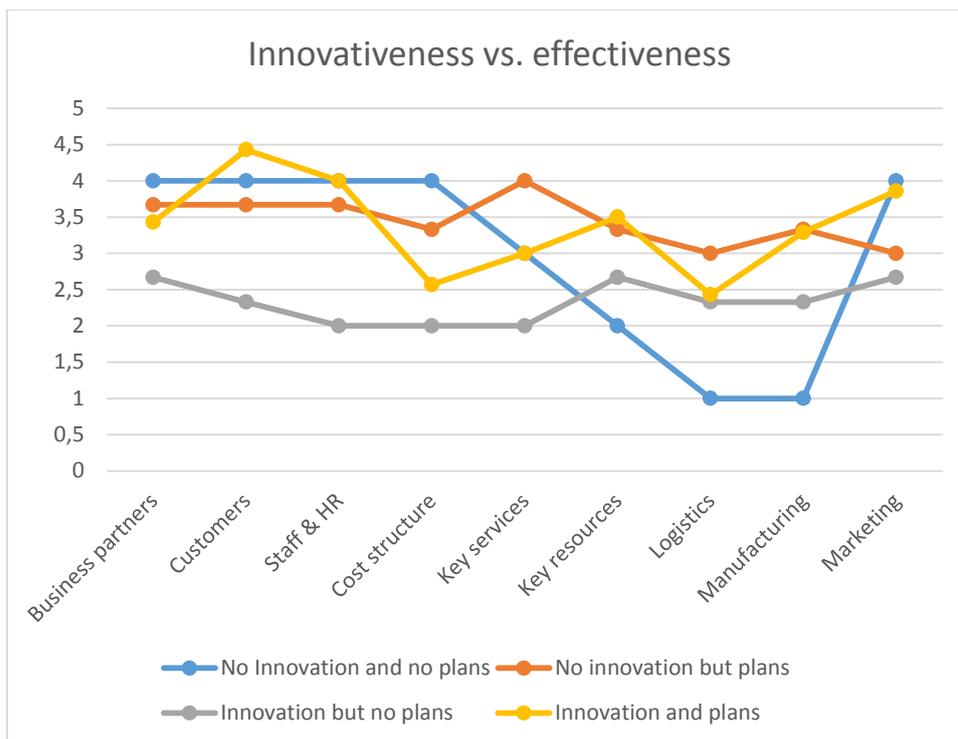


Figure 35. Innovation level vs. effectivity to different activities and groups.

Difference and similarities between participant SMEs from Group 1 (No non-technological innovations and no plans for increasing non-technological innovations in the future) to Group 4 (Non-technological innovations and plans to increase non-technological innovation level in the future) can see on figure 36. It shows that Group 1 saw the non-technological innovations effecting highly to business partners, customers, staff/HR, cost structure and marketing and lowest effectiveness was seen on logistics and manufacturing.

In Group 2 (No non-technological innovations but plans to increase non-technological innovation level in future) all three participants in this group saw that highest effectiveness on non-technological innovations would be on staff/HR and key services.

Group 3 (Non-technological innovations but no plans to increase non-technological innovations in future) had three evaluations instead of four because participant SME5 did not estimate the effectiveness of non-technological innovations. In Group 3 the dispersion was wide, e.g. participant SME6 saw that non-technological innovations effects on all sectors whereas participant SME7 estimated that key services, key resources and marketing might be lowly effected and other areas won't be affected at all (figure 36).

In Group 4 (Non-technological innovations and plans to increase non-technological innovation level in the future) customers, staff/HR and marketing were the areas that were seen having the biggest effects when implementing non-technological innovations (figure

36). Participants SME10 & SME12 thought that cost structure and key services would be areas that would have any effects when other SMEs on Group 4 estimated that the effectiveness would occur also in these two areas.

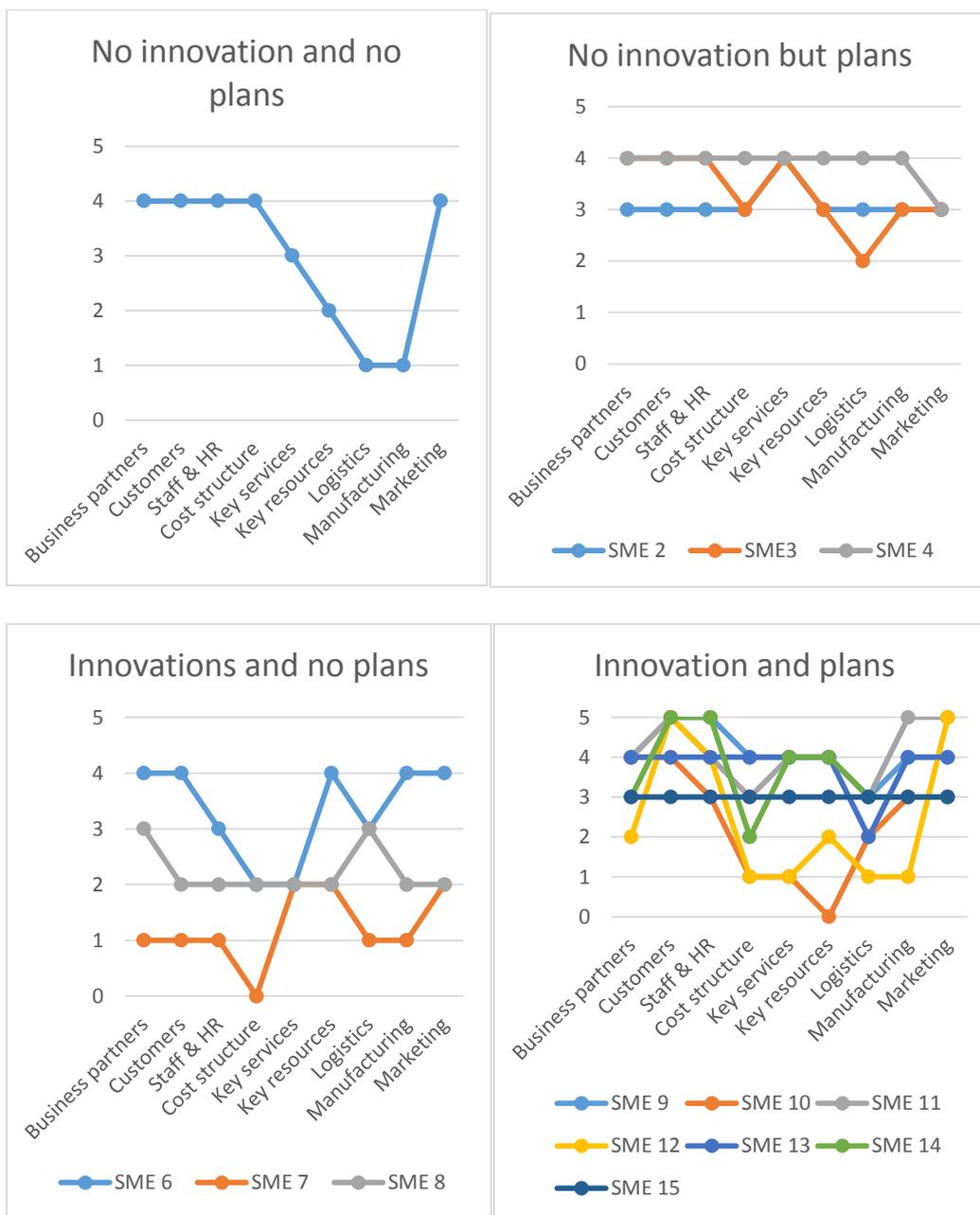


Figure 36. Effectiveness on different areas per innovation group.

4.4.2 Networks

Overall cooperation with major companies, other SMEs, Intermediaries and business organisations, R&D and Universities, schools and public support organisations and agencies is described in figure 37.

Figure 37 shows that the strongest cooperation was with major companies and other SMEs. With universities, schools and public support organisations cooperation were rare. For example, all responded had at least some cooperation with other SMEs. Over half did not have any cooperation with universities.

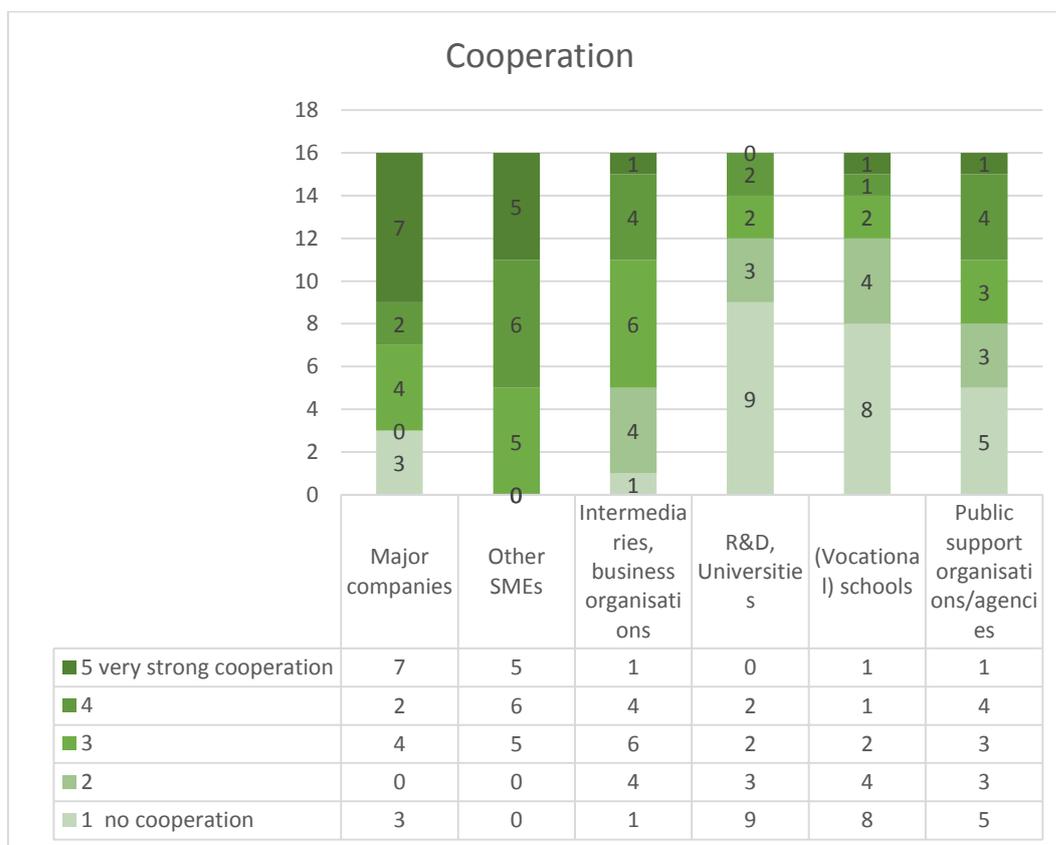


Figure 37. Cooperation.

When participants listed the most important partners excluding the customers and those were: bank for transferring payments, Lahti University of applied sciences, suppliers (packaging materials and ingredient), technology industry, chamber of commerce and local education institutions, production related service providers, City of Valkeakoski and Hämeenlinna, company owners, sub-contractors, accounting company and other similar entrepreneurs.

When comparing cooperation to innovativeness figure 38 shows that Group 4 (Non-technological innovations and plans to increase non-technological innovation level in the

future) have high cooperation level with other SMEs. Group 3 (no non-technological innovations but plans to increase non-technological innovations in future) was the only group having high cooperation with R&D/Universities.

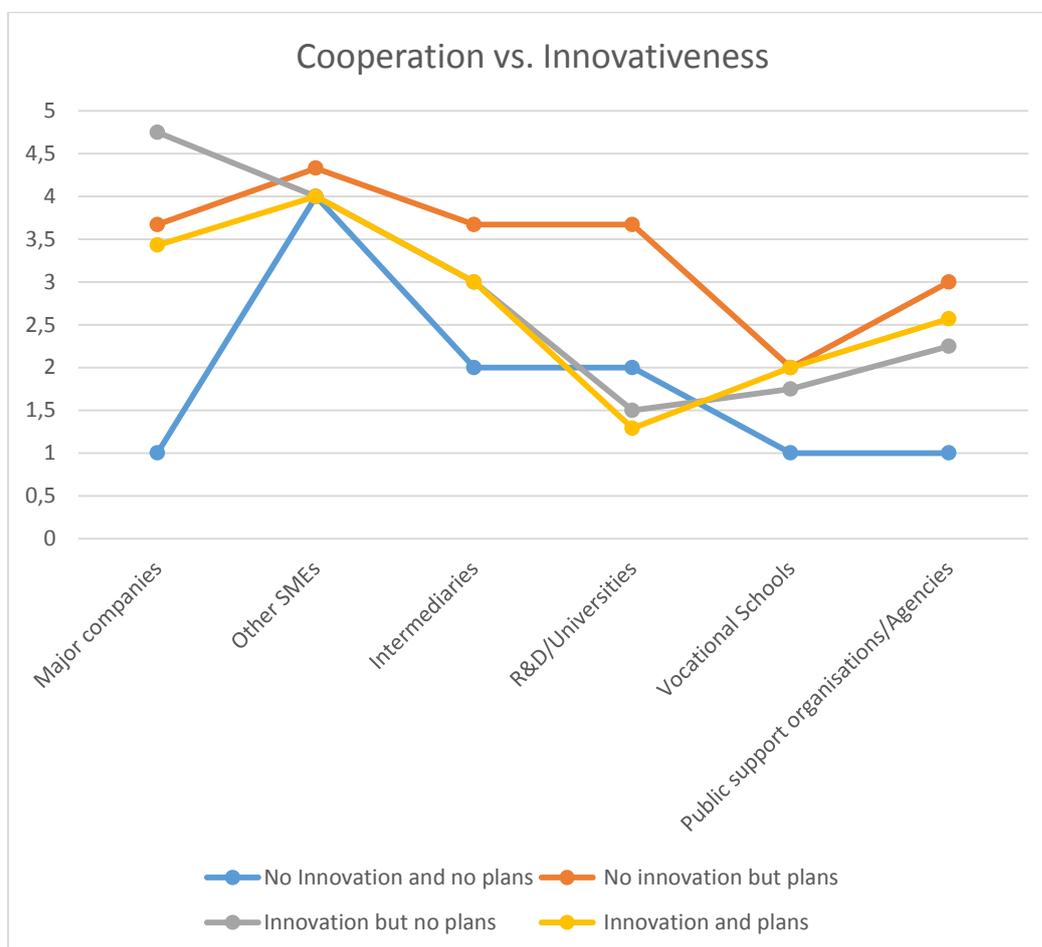


Figure 38. Innovativeness groups vs. cooperation.

Group 1 (No non-technological innovations and no plans to increase non-technological innovations in the future) had strongest cooperation with other SMEs (see figure 39). In Group 2 (No non-technological innovations but plans to increase non-technological innovation level in future) two participants (SME3 & SME4) had very strong cooperation with major companies and lowest with (vocational) schools when participant SME2 has strong cooperation with all other groups than major companies.

Group 3 (Non-technological innovations but no plans to increase non-technological innovations in future) all participants had strong or very strong cooperation with major companies and lowest cooperation with R&D/Universities. Group 4 (Non-technological innovations and plans to increase non-technological innovation level in the future) has participants with strong cooperation in all other groups than R&D/Universities. Figure 39 shows

that at least one member of Group 4 had strong cooperation with major companies, other SMEs, intermediaries, (vocational) schools or public support organizations/agencies.

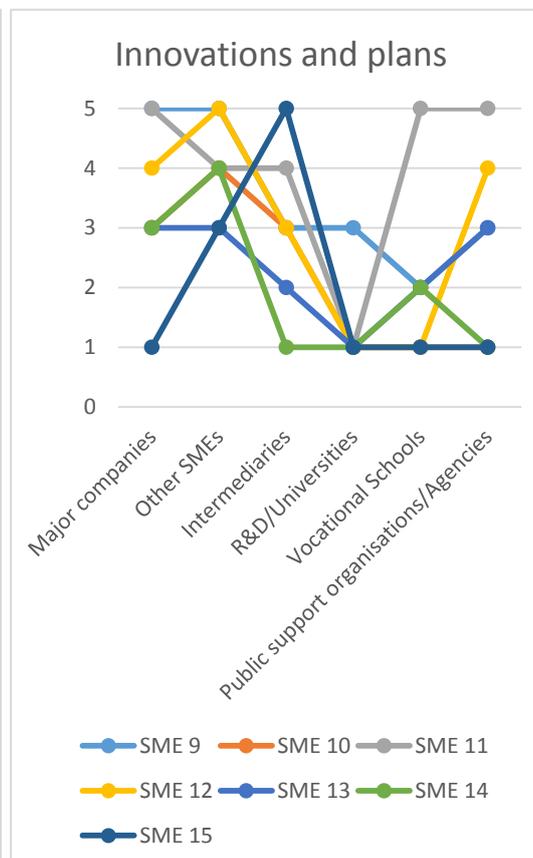
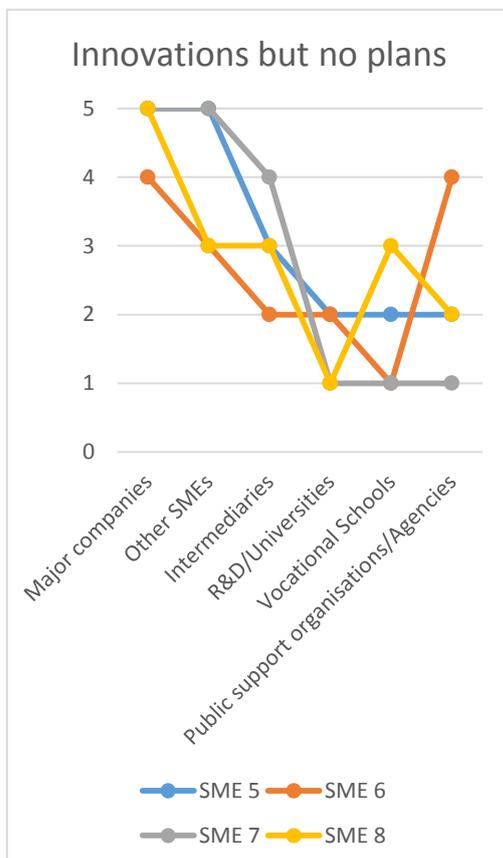
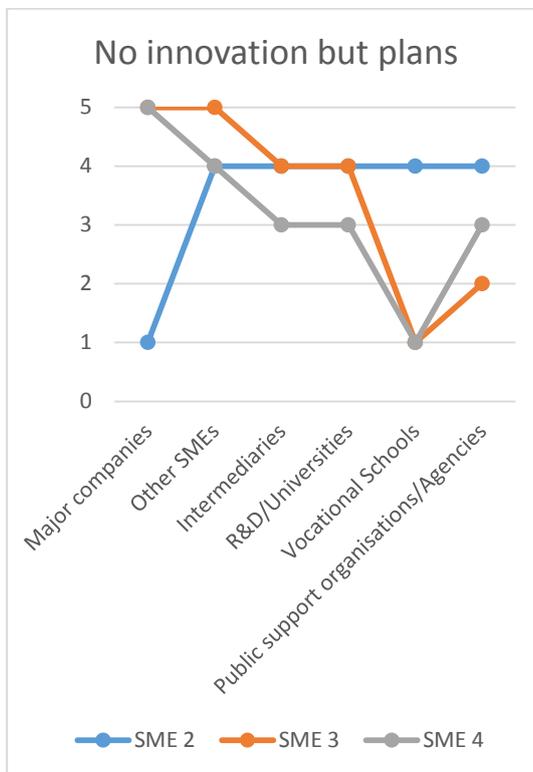
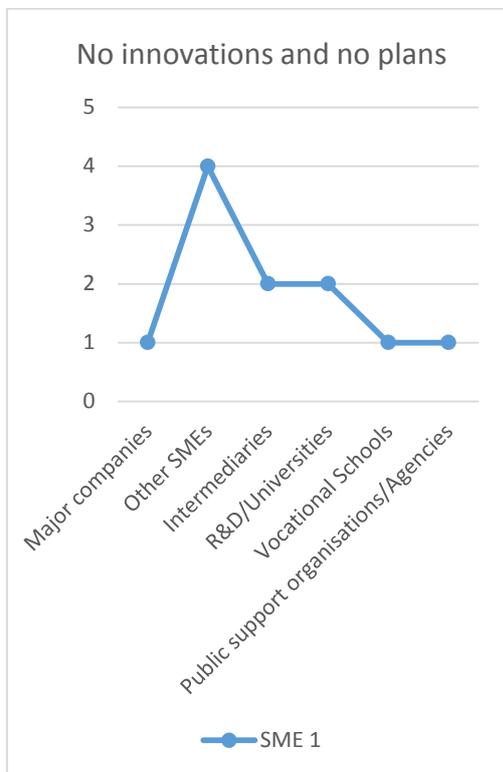


Figure 39. Innovativeness groups vs. cooperation

Financial situation vs. cooperation

When comparing financial situation to participants cooperation levels (see figure 40) it was found that SMEs with excellent financial situation had high cooperation level with major companies whereas the SMEs with quite poor financial situation had strong cooperation with other SMEs, but they also had significant cooperation with major SMEs. Figure 40 shows that all participants had strong cooperation with other SMEs independent of their financial situation.

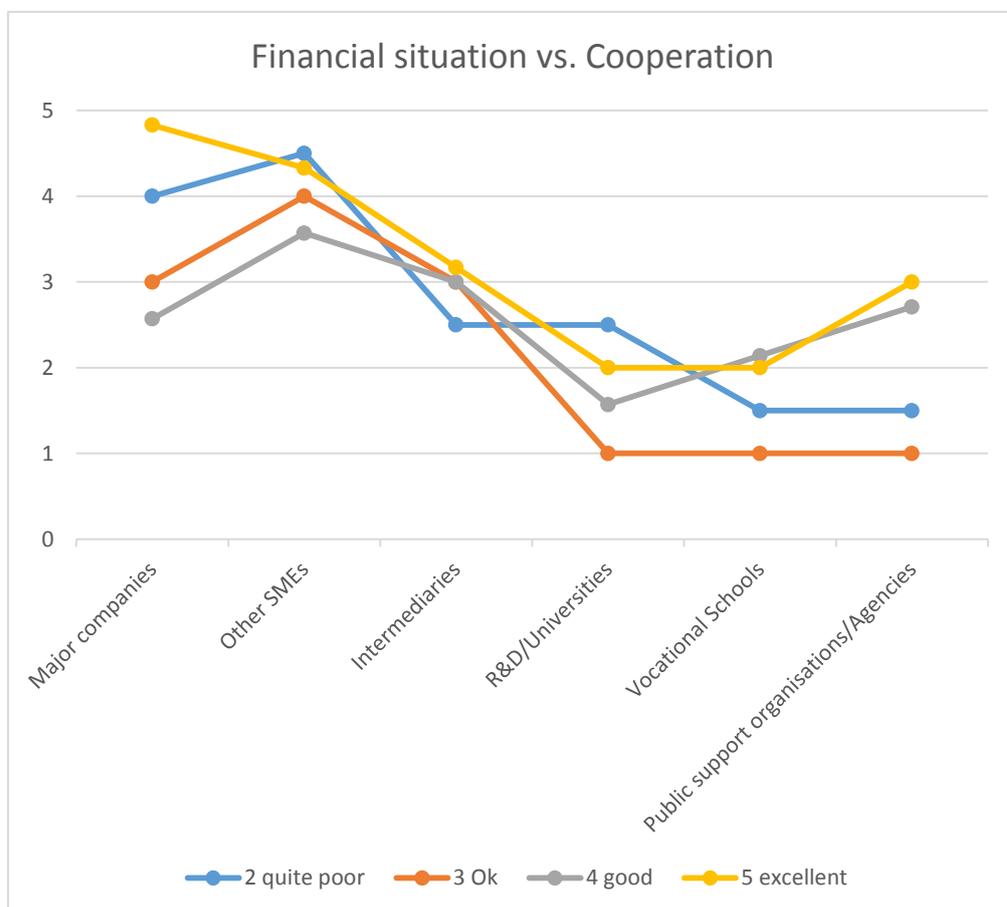


Figure 40. Financial situation vs. cooperation.

5 CONCLUSIONS

There are high hopes and expectations towards SMEs in EU because SMEs are influencing highly on our economic growth, employment and even on the stability of the society. When nine out of ten companies are SMEs there are plenty of potential for innovations in different field of business. Because innovations and competition are in important role for achieving the wishes pointed above, EU has made actions for ensuring these matters.

The task of this research was to map the current situation and future hopes of innovations. The aim was also to find out what kind of networks SMEs have and are there links between networking and financial situation. The thesis aims to increase knowledge of different innovation types and networks and the importance of these to Finnish SMEs future competitiveness. The target group for the study were Finnish SMEs but also project SNOwMan and intermediaries.

According to this research SMEs that have high cooperation levels with major companies, intermediaries and other SMES were having higher innovation levels than others. Different innovation types were known among most of the participants however there were only few SME that had separate innovation strategy. For future the non-technological innovations level will be increased by most of the participant and especially marketing innovations were seen interesting for boosting the sales and even showing the way for international markets.

5.1 Innovation

Based on the research current status of innovation among participant SMEs were from high to low; some had high levels of innovations and some did not have any innovations. The reasons for lack of innovativeness were for example strict regulations or lack of time. However, there were participants which whole business idea was based on technological innovations and some participants had made small innovations inside the company. Technological innovations were seen important and non-technological innovations were seen interesting thus there were participants that had no plans for increasing their non-technological innovativeness in future either.

Most of earlier innovations were seen small and almost pointless innovations and mainly technological improvements were seen as only innovations that there is possibility to make. Among the participants marketing or organizational changes were not earlier seen as innovations thus the interest towards non-technological innovations were increasing.

Even the non-technological innovation levels at the moment were quite low among the participants, many of them had plans for increasing non-technological innovativeness in future. The reasons for low current non-technological innovativeness may be the low knowledge of different types of innovations. It's common to think that innovations are only major technical changes on products or services. For example, based on Group 1 participant (no non-technological innovations and no plans for increasing) answer the knowledge of different types of innovations were low. Participant told that innovations are not so important to them but still they will improve their customer service more customer-oriented. The point for this action or as author sees as an innovation is to increase the number of customers. Innovations can be small improvements which are pushing the company towards better results with easier steps.

Among participants with knowledge of different innovation types there were more interest towards non-technological innovations and different or new types of marketing were in use or at least they have tried to use new ways on marketing. For example, social media channels were in use on several participants.

Time was one obstacle on low innovation level and why there have not been any interest towards non-technological innovations or other innovation types. It is hard to find time for improvements when everyone in the company are trying to survive from the daily work. Might small improvements help on survival? Perhaps these small changes among the daily work would save time if the employees would have chance to made improvements.

Different innovation strategy was rarely done among participant SMEs and on the SMEs, which had separate innovation strategy were SMEs which had high level of innovation at the moment and plans for increasing their innovativeness in future. Innovations were seen important because they make possible to stand out from competitors; they have competitive advantages with different types of innovations. With innovations there is possibility to affect in positively way to customers as well, innovations were seen important to customers.

Among SMEs the customer was seen important and many of participants mentioned that they have plans for increasing the happiness of their customers. They want to increase the number of customers and trying to be more fascinated among possible customers by improving their services more customer oriented.

The interest especially towards marketing innovations was high among all participants even they had or hadn't had high innovation levels at the moment. Mainly participants were interested how they could use different marketing channels and even how they would be able to reach global markets.

Highest effects of implementing non-technological innovations were seen among business partners, customers and staff. Especially group 4 which had non-technological innovations and plans for increasing them saw high effectiveness of non-technological innovations on customers, staff, manufacturing and marketing. The knowledge of different types of innovations gave possibility to see the effectiveness also among manufacturing and staff. When ways of working are changed it is affecting also to the manufacturing.

5.2 Networks

Strongest cooperation participant had with major companies, other SMEs and intermediaries/business organizations. All participants had cooperation with other SMEs and lowest cooperation participants had with R&D/Universities when nine said they haven't had any cooperation with R&D/Universities.

On networks the groups were missing cooperation with R&D/Universities, only one group had high cooperation with them and it was group 2 which had no non-technological innovations but plans for future. Universities have high potentially for research and development and SMEs should exploit chance for high and massive R&D work made in universities. Perhaps the placement and lack of universities in Kanta-Häme area in Finland was the key element why participants didn't have cooperation with universities.

Universities and universities of applied sciences should increase their cooperation with SMEs by informing and marketing the huge and different resources they have for R&D. With this cooperation SMEs would have access even to new highly competitive business areas and Universities would be able to increase their knowhow and ways to answer on needs of companies. Cooperation between universities and SMEs would be win-win - situation for both.

Interesting was seen that there were not seen any significant resemblance with cooperation and financial situation. With excellent financial situation participants had high cooperation levels with major companies however with lower financial situation companies had cooperation with major companies as well.

The cause for this may be that there was not available any exact information what kind of cooperation participants have with their most important cooperation partners. The information of that might have the key what kind of cooperation leads towards success. The diversity networks create better possibilities towards innovations and knowledge of the business.

5.3 Validity and reliability

Validity and reliability of this Master's thesis is based on the theoretical framework that was supported with the mixed research method. Reliability of the research may not be coherent because of human factors on the interviews. The interviews were held by several interviewers with different backgrounds and details about the project, making interviews etc. Factors mentioned above and because of different circumstances the outcome may vary. The large scale of interviewers may cause the difference on answers because judgement, attitudes and knowledgebase differences among interviewers.

Data collection from different academic articles and books made together good base on the research thought the interview form was conducted in the project. The comments on the form were based on the literature and those were noticed when form was remade. However, author's opinion was that the output of questions should have been clearer and easier to understand. The interview situation itself may cause many feelings and uncertainty of the questions may cause frustrating among interviewer as well as interviewed participant.

Limitations on this research gave the small number of interviews held in Finland, there were 16 interviews made to SMEs. Because of the small number of participants, it was not possible to conduct statistical tests. Despite the limitations mention above different comparisons between answers gave good picture of participants knowledge about innovations especially on non-technological innovations and were verified to research and other theories collected on this thesis. Even the participant group of this research was quite small (16 participant) the variety of different types of SMEs were high. The background of these participants was different from old to young organisations from smaller to larger and from different fields of business.

5.4 Recommendations

For future studies it would be useful for research what kind of networks SMEs have and how diversity and active the networks are. This would give better view for the networking and how to increase and use networks for better outcomes. Diversity of networks were unknown and for deeper knowledge of the cooperation needs to be investigated. The knowledge of different types of innovations and networks would help SMEs for achieving the high expectations they are confronting from the society and EU.

This research showed that different types of innovations were quite unknown but the interest towards non-technological innovations were high. Innovations are seen as huge

and life changing improvements and not as small inside company happening improvements. The knowledge of different type of innovations and help of conducting different innovations strategies would be useful for SMEs.

Time was limiting the possibilities for innovations as well as towards networking. When networks are defined there is possibility to find out is the network enough diverse. Diversity network gives possibility to increase own knowledge and the needs of different customers and business partners.

Diversity networks give better possibilities companies for innovation because they are able to receive different aspects of the needs on their networks. When companies have wide network, the knowledge and information is shared better. Diversity and wide network give possibilities for business advantages because the private information is shared among networks. This information is not available for everyone and may give possibilities for bigger deals etc.

For achieving better knowledge about SMEs intermediaries should be able to conduct wide information about the networks SME owner-manager has and give overall information about different types of innovations. If owner-manager are not able to come to intermediaries, intermediaries should go to owner-managers. This way they can create trustful and real understandable relationship between each other.

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APPENDICES

INTERVIEW OF SMEs

Cursive parts are not part of the questions, but hints for the interviewer. “Please elaborate” or “Further information” are reminders to dig deeper with follow-up questions.

SECTION 1: INTRODUCTION

Please remind the company, that the interview will be anonymous unless they want to share contact information and have an interest to be contacted later (for example for follow-up questions).

Name of Interviewer:

Organisation of Interviewer:

Date of interview

INTERVIEW ANONYMOUS:

YES

NO:

Company

Name

Location

SECTION 2: Background of the company

1. What is your position in the company?

Owner and manager

(other) Manager

Staff

Other _____

2. How many employees do you have?

_____ (exact number) or

less than 10

between 10 - 25

between 25 - 50

more than 50

3. How many years has this company been active (*did the interviewee start the company, was it family owned for a longer time, 2nd or 3rd Generation*)

_____ (exact number) or

between 2 – 5 years

between 5 – 10 years

between 10 – 20 years

more than 20 years

Further information:

4. Do you have plans for the generation shift or finding a successor in the next 5 – 10 years?

yes

no

not sure

Further information:

5. In general, how close your cooperation is (please mark, 1 no cooperation, 5 some exchange, 5 very strong cooperation)

<i>Cooperation with</i>	1	2	3	4	5
Major companies					
Other SMEs					
Intermediaries, business organisations					
R&D, Universities					
(Vocational) schools					
Public support organisations/agencies					

6. Except for your customers, who or what is the most important cooperation partner/institution/stakeholder for your business?

Please elaborate:

SECTION 3: Challenges

7. What do you believe are the advantages / disadvantages of a company being managed by the owner?

Please elaborate:

8. How is your company doing in general (1 poor, 5 excellent)

	1	2	3	4	5
Company well-being					

9. How would you estimate the relevance of the following challenges for your company at the moment please rate from 1 to 5 by marking with a cross; you can also add other)?

	1	2	3	4	5
Recruitment of new workforce					
Qualification					

of existing workforce						
Finding customers						
Funding						
Regulations/Red Tape						
Digitalisation						
Competition						

10. Do you have a vision for your company in the next five years and maybe are aware of the next steps ?

Please elaborate:

11. If a magic fairy would come into this room and grant you one wish, how to improve your company, what would you wish for (to overcome described challenges/realise Vision) ? *(encourage creativity; if the answer is money, ask what would be purchased, would it be invested in personnel, in machines etc.)*

Please elaborate:

SECTION 4: Non-technological innovations

12. In the last years, it is always highlighted by policy makers that European companies need to improve their innovation capabilities. Is innovation a topic in your company? Do you have an innovation strategy or does innovation seem to you just like a buzz-word?

Please elaborate:

13. In the last 5 years, did your company create new or significantly improved methods of manufacturing for producing goods or services? If yes, who developed these (*owner himself, internal staff, external designers, agency etc.*)?

Please elaborate:

14. A variety of innovations exist, from product innovations or process innovations, technological and non-technological innovations. Are you aware of the different forms, do they play a role for your firms strategy ? Is one important to your company?

Please elaborate:

15. Often without naming it that, for many SMEs a form of non-technological innovations is interesting, the organisational innovations, i.e. a new organisational method in your enterprise's business practices (including knowledge management), workplace organisation or external relations that has not been previously used by your enterprise.

Do you have any experiences with this, would it be interesting?

16. Another possible non-technological innovation are marketing innovations, i.e. the implementation of a new marketing concept or strategy that differs significantly from your enterprise's existing marketing methods and which has not been used before.

Do you have any experiences with this, would it be interesting?

17. How would you estimate the non-technological innovation level of your company, from 1 (very low) to 5 (very high), please mark:

	1	2	3	4	5
Innovation level today					

18. What are the risks when implementing non-technological innovations in your company and how would you rate their level (*please rate from 1 low risk, 10 high risk; you can also add other, not listed risks*)

	1	2	3	4	5
Competence					
Acceptance by staff					
Acceptance by customers					
Data security					
Infrastructure					

19. Would you like to raise your non-technological innovation level in the next 5 years, and if so, how much? (1 no change, 5. Medium change, becoming more innovative, 10. get very innovative) Please mark:

	1	2	3	4	5
Innovation increase					

Please provide further information, if answer is no, "why would you not like to raise the level":

20. What are the risks when implementing non-technological innovations in your

company and how would you rate their level (please rate from 1 low risk, 5 high risk; you can also add other, not listed risks)

	1	2	3	4	5
Competence					
Acceptance by staff					
Acceptance by customers					
Data security					
Infrastructure					

21. In which part/area would you see the effect of a non-technological innovation in your company most likely (Please rate from 1 – 5)

	1	2	3	4	5
--	---	---	---	---	---

Business Partners					
Customers					
Staff, Human res.					
Cost structure					
Key Services					
Key resources					
Logistics					
Manufacturing					
Marketing					

22. How would you measure the effect of the non-technological innovation in your company? Could you give an example of indicators?

Please elaborate :

SECTION 5: Counselling

23. Are you /your company member of any business support organisation / intermediary bodies?

- no
- yes, of one
- yes, of two or more

Further information:

24. How often do you use external counselling?

- never
- once every couple of years

- once a year
- several times a year

25. How do you decide from when and by whom you will ask for a consultation

Please elaborate:

26. In previous years, by whom did you receive the most valuable external support for your company? (*this is on purpose a very open question, it could be an intermediary, a consultant but also a family member with more experience etc.*)

Please elaborate:

27. How do you see the role of business intermediaries for owner-managed SMEs like yours? What are your expectations when asking for advice?

Please elaborate:

28. Did you ever receive a particular positive (or negative) counselling and if so, what made it a good (resp. negative) experience?

Please elaborate:

29. Have you ever received or heard of a counselling that was ICT-based or used tools/methods? Which?

Please provide further information/examples

30. Do you have any wishes for a counselling tool that can support you ? *(if possible also with regards to non-technological innovations)*

Please elaborate

31. What do you believe intermediaries can do to improve the counselling process for owner managed SMEs like yours?

Please elaborate

SECTION 6: Closure

32. Thank you for taking your time. Is there anything else you would like to give us on the way when developing tools to improve the counselling of owner-managed SMEs in the next years?

Please elaborate