



Department of Industrial Engineering and Management

**Master's thesis**

**Determination of the critical activities of a public-private intermediary organization with the help of value chain analysis**

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## ABSTRACT

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The aim of this thesis was to find out how a non-profit, public organization can describe its activities through the value chain. The aim was to describe the activities in general and to create a model about the case company's value chain and value activities.

This research is divided into a theoretical and an empirical part. The former is based on previous research and information about stakeholders, value creation, and value chain analysis. In the latter part, the research method is qualitative case study. In the empirical part, the internal activities of the case company were modelled and the stakeholders' expectations were clarified. The empirical part is based on interviews of the stakeholders and employees of Innovation.

As a conclusion, it is possible to describe the non-profit, public organization's activities using the value chain analysis. Special features of the business area and the company set challenges but still the value chain was a useful approach to define the case company's value chain.

## TIIVISTELMÄ

**Tekijä:** Ville Huuhtanen

**Työn nimi:** **Voittoatavoittelemattoman, kunnallisen osakeyhtiön liiketoiminnalle kriittisten toimintojen määrittäminen arvoketjuanalyysin avulla**

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Tämän diplomityön tavoitteena oli selvittää arvoketjuanalyysin avulla toiminnot, joilla voittoatavoittelemattoman, julkisen osakeyhtiön toimintaa voitaisiin kuvata. Tarkoituksena oli selvittää mainitut toiminnot yleisesti ja luoda malli kohdeyrityksen arvoketjusta ja sen toiminnoista.

Tutkielma jakautuu teoreettiseen ja empiiriseen osaan. Ensimmäinen pohjautuu aikaisempaan tutkimukseen ja kirjallisuuteen sidosryhmistä, arvon muodostumisesta ja arvoketjuanalyysistä. Jälkimmäinen on laadullista tapaustutkimusta. Empiriassa mallinnettiin Lappeenranta Innovation Oy:n sisäisiä toimintoja ja sidosryhmien odotuksia. Empiirinen tutkimus perustui kohdeyrityksen omistajille ja henkilöstölle tehtyihin haastatteluihin sekä yrityksen toiminnan päivittäiseen seurantaan.

Johtopäätöksenä todettiin, että julkisen, voittoa tavoittelemattoman yrityksen toiminnot on mahdollista kuvata arvoketjuanalyysin avulla. Alan ja yrityksen asettamat erityispiirteet toivat haasteita määrittelylle, mutta silti arvoketju antoi selkeän tavan kohdeyrityksen toimintojen mallintamiselle.

## **PREFACE**

I would like to thank my instructor Jukka Bergman for the possibility to make this thesis and for the interesting subject. I would also like to thank all the other people who have helped me during this project and my supervisor, Hannu Kärkkäinen with encouraging comments.

Special thanks to my dear family that has supported me during my studies. Special thanks to my girlfriend Nina who has supported and helped me in hard times doing this thesis.

Kouvola, May 28, 2007

Ville Huuhtanen

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# 1 INTRODUCTION

Business environment has changed rapidly in the last decades. Companies face new challenges, for example increased competition, customer demands, and globalization. They have to develop their activities continuously to meet the expectations stakeholders set for them.

There are many companies that want to expand their activities but they have no resources or knowledge to manage this task. Nowadays, there are companies that help them to grow and to develop their business, they are called business development companies. The case company of this thesis's, Lappeenranta Innovation Ltd (Innovation), has been founded to help expanding companies in Southeast Finland and the St. Petersburg region. The study concentrates on describing Innovation's value chain and value activities. This helps Innovation to develop its own operation and to serve its customers better. In addition, the aim is to gather supplementary information about the customers' perceived value.

## 1.1 Background

All the companies have to clarify and create models and frameworks for their business functions and decide what activities are critical for their success. These models have to be bright and realistic and the employees have to know how and what for to work. Planning and modelling have many advantages for a company. According to Mintzberg (1994 pp. 16-19), organizations have to plan to be able to coordinate their activities, to ensure that the future is taken into account, to be rational, and to control. Planning and modelling clarifies the company's operations, helps to develop its activities and notice weaknesses. Innovation is a recently founded company, and in the beginning of its life cycle it is important to



model all its activities. Many activities that a company does are parallel and the lines between them are hard to separate. However, in this thesis activities are tried to divide and separate with the help of value chain approach. This Masters thesis is done by Innovation's request and its aim is to help Innovation in defining its value chain and value activities.

One of the most interesting elements in this study is the company's unique branch of business, which is introduced in chapter 2. The branch has not been examined, because companies working in this business have been founded recently. In addition, there are few organizations to benchmark with Innovation. The uniqueness of the branch sets challenges in modelling Innovation's activities, because there are several different things that need to be taken into account compared to traditional company's business environment, for example. Innovation itself does not have to be innovative in a commercial meaning but it has to create new innovative solutions for other companies so that they can develop their business in new areas and with new products. Innovation is an intermediary organization between business and research. In general, Finland can succeed in the global competition by specializing and investing in knowledge and technology. Small companies' internationalization is considered important. (MET 2005, p. 3) These things are now taken seriously and that is the reason why companies like Innovation have been and are being founded regionally to develop different business areas.

## **1.2 Research objectives**

The main objective of the study is to answer the following question:

- How to describe a non-profit, public organization's value activities through the value chain analysis?

Other objectives include creating additional information about value chain modeling in public service organizations and bringing valuable information to the case company about their stakeholders. The next sub-questions help to define these objectives.

The sub-questions are:

- Are Lappeenranta Innovation's key stakeholders' closer to municipal business development company's stakeholders or a traditional company's stakeholders and which are their expectations in different roles?
- Which are the customers' value activities that Lappeenranta Innovation adds value to?
- What is the added value offered by Lappeenranta Innovation to its customers?

The answers to the sub-questions are introduced in the same order as the questions were presented. The purpose of these questions is also to clarify the structure of the thesis. In addition, the structure is clarified in table 1.

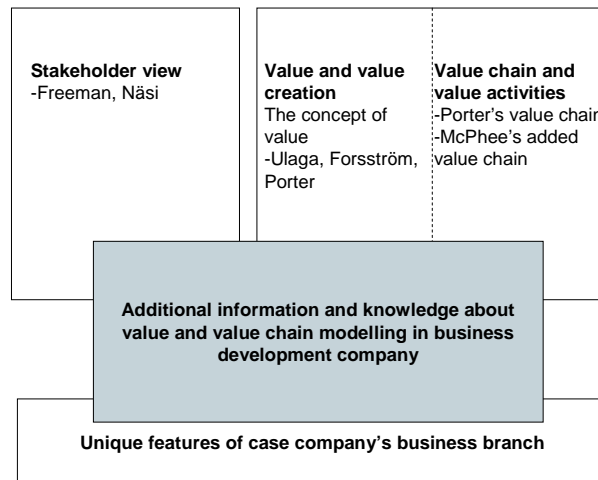
**Table 1.** The structure of the thesis.

Chapter	Content	Connection to research problem
1. Introduction	The background, targets, structure and framework of the thesis.	Introduction of the research problems. Introduction of the research data and methods.
2. Introduction of Lappeenranta Innovation and its business environment	Introduction of the case company and its business environment.	Introduction of the case company and its business environment helps to understand the research problem and the selected literature.
3. Stakeholders of the firm	The concept of the stakeholders. Inputs and expectations of the stakeholders. Stakeholders of the municipal business development company.	In the third chapter, to the first sub-question is answered. In addition, this chapter introduces the business development company's stakeholders.
4. Value creation and value chain	The definition of the term <i>value</i> . Value creation. Porter's value chain. The added value chain.	In the fourth chapter, the second and third sub-questions are answered. It is also described how the value accumulates along the chain.
5. Primary activities	The primary activities of the value chain. Additional elements which are utilized in the case company's value chain.	The introduced primary activities are the basis for the case company's value chain.
6. Support activities	Support activities of the value chain.	The introduced support activities are the basis for the case company's value chain.
7. Applying the framework to the case company	The gathered data and the methods are introduced and analyzed.	In the empirical part, the gathered data is analyzed and utilized to answer the research problem. The aim is to describe the case company's value chain and value activities.
8. Summary and conclusions	The results and conclusions of the research. Suggestions for future research objectives.	The answers to the sub-questions are introduced in a compact form. With the help of that knowledge, the main research problem is answered.

In table 1, the topic of the chapter, the contents of the chapter, and the connection with the research problem are introduced. However, the research forms a whole and the problems are answered during the whole research, so the answers to the sub-questions might be complemented on the basis of other chapters also.

### 1.3 Research methodologies

This thesis is divided into a theoretical and an empirical part. In the theoretical part, the research methodology is literature analysis. The literature analysis is based on existing knowledge and research done in the field of stakeholder management (e.g. Freeman, 1984), value creation (e.g. Ulaga, 2001; Porter, 1985) and value chain (e.g. Porter, 1985; McPhee, 2006). Based on previous literature, the aim is to identify customer perceived value, create a value chain for the case company, and to model the case company's value creation activities. In addition, the aim is to recognize the case company's key stakeholders and their stakes and rewards. During the theoretical part, the case company's unique branch of business is taken into consideration and theories, models and previous research information are chosen in such a way, that they can be utilized in this thesis. Theoretical choices are illustrated in figure 1, which also shows the expected results of the thesis. The expected results are presented in the colored box.



**Figure 1.** Theoretical literature utilized in this thesis.

The theoretical part is utilized to recognize the added value the case company creates to its customers. In addition, it is utilized to recognize the

key stakeholders of the company. The most important task of the theoretical part is to offer tools that can help in defining the case company's value chain and value activities. In the literature, many kinds of value chains, value networks, and value systems are presented. However, there is no single right answer to the question of what is the right model for each business area and for each company. Each company has to develop its own value chain and find out what value activities it includes. That is why several models are discussed and two possible value chains are presented. These are utilized to find elements that are appropriate for the case company and its business area.

The empirical part of this research is based on the qualitative analysis method. The characteristics of qualitative research are: it is comprehensive, it uses people as an instrument of information collecting, and the target group –for example company - is chosen on purpose, not by using a random sample. The research plan develops during the research process also. (Hirsjärvi et al. 2000, p. 154–155). More specifically the research method used is case study. It is a way of investigating an empirical issue following a certain procedure. According to Yin (2003, p. 1), case study is used in many situations to contribute existing knowledge of individual, group, organizational, social, political, and related phenomena. Case studies can be based on both quantitative and qualitative data. In case study, several data sources can be utilized. These include for example interviews, documents, observations, and participant-observations. (Yin 2003, p. 14) In this study, qualitative data consists of observations of internal processes and of both formal and informal interviews in the case company. In addition, data was gathered from stakeholders through a questionnaire sent by e-mail.

The conducted formal interviews were semi-structured. They were used as sources of clarifying the stakeholders' expectations and the customers' perceived value. Informal interviews were used to find the right elements for the case company's value chain modeling and value activities defining.

The Chief executive officer (CEO) of the case company has a clear view of what those elements might be but they need to be written down and described in detail.

## **2 INTRODUCTION OF THE INTERMEDIARY ORGANIZATION AND ITS BUSINESS AREA**

In this chapter, the case company Lappeenranta Innovation Ltd and its business area are presented. There are two main reasons why Innovation and Innovation's business area are presented in the beginning of the thesis. First, the Innovation's demands and expectations for this thesis are introduced. This is because they have had such a big influence on the theoretical data choices. The second element is the unique branch of business. Clarifying those things first helps the readers to understand this thesis better.

### **2.1 The intermediary organization**

Innovation was founded in 2005. It is a non-profit company, owned by Lappeenranta City Holding Company Ltd, Technopolis Plc, and the Economical College of Vyborg, called Vitako. Innovation is a part of the Lappeenranta City Holding companies (see Appendix 1) and its business targets are part of the parent company's strategy. However, the company still has strong autonomy concerning its business operations. Innovation starts and carries out business and administration development projects and develops new innovative business models with the customers. The company opens and supports new business cases especially in the forest, energy, welfare and service sectors. (Lappeenranta Innovation Business Plan, 2006)

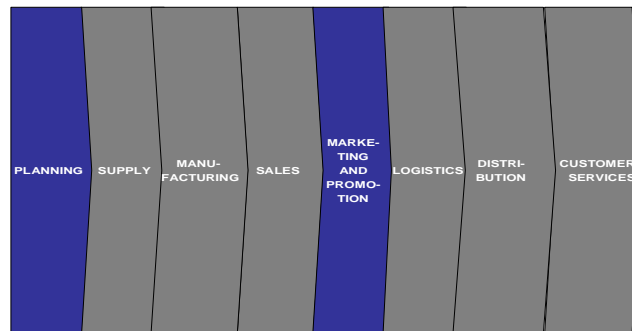
Innovations main targets for the years 2007-2010 are (Lappeenranta Innovation Business Plan, 2006):

- To create new businesses in the Lappeenranta region, especially in selected business sectors

- To develop the existing, especially so called traditional business, in the Lappeenranta and Southeast Finland regions
- To combine business and research in terms of ensuring the transfer of know-how to companies and other organizations
- To develop and carry out new innovative operation models in private and public sectors
- To lead and guide Lappeenranta and South Karelia towards the status of a forest industry metropolis
- To lead and guide the development of Lappeenranta towards the real heart of Russian business
- To make Lappeenranta the developer and pioneer user of new welfare services and decentralized energy supply
- To create an innovative meeting point and development environment "Matching System" for different parties, experts and know-how.

As mentioned, Innovation is an intermediary company and does not handle customers' activities but concentrates on two phases of the value chain to support the development of the customers' business operations through expert services. (Bergman, 2006) In figure 2, these two phases, planning and marketing and promotion, are illustrated. Planning means "*the development and support of new business of the customers*" and marketing and promotion means "*the promoting of existing and new business of the customers*". (Bergman, 2006)





**Figure 2.** Innovation's value creation for customers concentrates on two phases of the value chain.

Innovation has some advantages that make the company attractive for its partners. Innovation is a neutral and reliable partner and because Innovation is a non-profit company, it has no competition with other companies. Innovation is also an initiator that has no conflicts of interests. In addition, its deep academic knowledge and the owners' resources make it a desired partner. These realities enable Innovation to reach all its targets. The business and funding of Innovation are done through development projects and programs. (Lappeenranta Innovation Business Plan, 2006)

At the present time, Innovation has many ongoing projects and the beginning of the business seems to be successful. The company's strengths are its human resources and capable personnel. Innovation has the support of its shareholders, but its operative models are still unclear. This thesis has been made by the assignment of Lappeenranta Innovation, and the aim is to define Innovation's value chain and value activities based on Porter's general value chain. This is the reason why Porter's value chain is not used in finding elements to competitive advantage but just defining the activities of Lappeenranta Innovation. The benefits of modelling the activities were presented in chapter 1.1. As mentioned earlier, the business environment has changed dramatically and Porter's value chain does not completely rise to today's challenges.

Activities have to be taken into account in a broader scope while defining company's value chain and value activities. Those other activities included in company's value chain are based on the research of McPhee et al. (2006) who have improved Porter's general value chain by adding important activities to answer today's demands. Other value chain models were also examined but McPhee's value chain seems to be the most suitable one to meet the requirements of Innovation. Every activity in the theoretical part is based on Innovations requirements and present activities. The descriptions of primary and support activities might be different from the ones Porter (1985) and McPhee (2006) have originally described. Innovation can utilize this thesis to clarify to its stakeholders and employees how the company executes its strategy and what the arguments to do it that way are. In addition, modelling helps the employees to understand the company's goals and the way to achieve these goals.

## **2.2 Business area of the organization**

Innovation's aim is to support the advancement of regional development policy in several sectors. Sotarauta and Linnamaa (1997, p. 42) have defined regional development policy as follows: It is adjusting different society sectors' and interest groups' sometimes contradictory goals, strategies and means, and operations coordinating to develop and improve commercial life. This is done at municipal and regional level. Both adjusting and coordinating take into account several actors and needs to adapt different and even contradictory targets. These are central factors both in regional political target setting and in target realization.

According to Sotarauta and Linnamaa (1997, p. 62), a region's competitiveness is the result of its capability to:

- tie up the city region and its actors to well functioning networks as tight as possible

- maintain and develop facilities of citizens' quality of life
- attract new competitive companies to the region
- create operational preconditions that enable existing companies' to maintain and develop their competitiveness.

The support of regional development policy has changed drastically in the last fifty years. The development has changed from supporting the manufacturing sector to such issues as promoting technology and innovation development, networking, encouraging entrepreneurship in general, and raising the knowledge of local enterprises (Sotarauta & Linnamaa 1997, pp. 48-49 ; Sotarauta & Linnamaa 1998, pp. 228-229) To implement local development policy Sotarauta and Linnamaa (1997, p. 50; Sotarauta et al. 2007, p. 21) have listed such things as: direct financial support, companies' guidance, existing companies development, participating region's development, marketing of region, promoting companies' and region's internationalization, coordinating of business political actions with other industry sectors, improving companies' atmosphere and communication between stakeholders, and coordination of networks. As shown, the business field is wide and not yet defined. The business development companies have to have picture about many business sectors but not have to be expert in these sectors. These business development companies have to pull the experts together to gain the results. (Sotarauta et al. 2007, p.10)

Belonging to networks and the functionality of networks seem to be the most critical factors in a region's competitiveness. The task of municipal business development companies is to maintain and encourage this activity. These companies also have an important role in creating confidence between participants. Creating confidence between partners is vital because some network participants fear that others are just benefiting from others and not giving added value to network. (Sotarauta & Linnamaa 1998, p. 231; Sotarauta et al. 2007, p. 10) The aim of belonging to a network is an interplay between the partners, where each participant adds

value for others and every participant will benefit. (Linnamaa & Sotarauta 2000, p. 36) Reality has shown that companies are still sceptical towards network thinking and they need concrete examples that network can benefit every participant.

A region's success depends on the companies' success (Ståhle & Sotarauta 2002, p. 6), and the aim of regional development policy is to increase a region's attractiveness to carry on business. Because of cities' limited resources to support every industry area (Ståhle & Sotarauta 2002, p. 36), each region has its own core business areas. Therefore regions do not compete with each other. The most important thing for a business development companies is to recognize own regional strengths and then support these areas. Innovation's focus areas are the same as South Karelia's strengths: the forest, energy, welfare, and service sectors. In addition, Lappeenranta University of Technology concentrates on these areas. The starting point to make South Karelia an attractive region to do business in chosen sectors is inviting.

As already mentioned, the business area set challenges for defining the case company's value chain. The product is information that should be developed in every phase in the value chain to create more value for customers. The expert organization has to know when the information is in such a form that it brings the greatest possible value for the customers. In addition, expert organization has to know how to develop their value chain to meet the challenges related to superior value creation. A non-profit organization has to take into account also several things while offering their services for customers. One of the most important things is that it has to offer services that benefit the region's competitiveness. In addition, it cannot price the services too low or too high. These are the central challenges, set by business area, that have to be taken into account while defining the case company's value chain.

### **3 STAKEHOLDERS OF THE COMPANY**

Stakeholders play a very important role in today's business, and they have a great influence on a company's decision making. Stakeholders' increasing involvement in business processes makes stakeholder management one of the critical success factors in a company (Pitta et al. 2004, p. 513). The stakeholder concept has expanded in the 1980s after R.E. Freeman published his book "*Strategic Management: A Stakeholder Approach*" in 1984. In this book, Freeman argues that a company's task is "*more than to increase profits to its shareholders*" (1984, p. 4-7). Freeman refers to Milton Friedman's (1970) article "*The social responsibility of business is to increase its profits*", where Friedman advises companies to this approach. Freeman wanted to widen this approach and started the stakeholder thinking and understanding as a part of successful business.

Firstly, in this chapter, the definition of stakeholders and different ways of grouping them are presented. Secondly, inputs and expectations of stakeholders are discussed. Finally, stakeholders of business development companies are presented and compared to stakeholders of companies whose aim is to gain profit and which are not controlled by city holding companies.

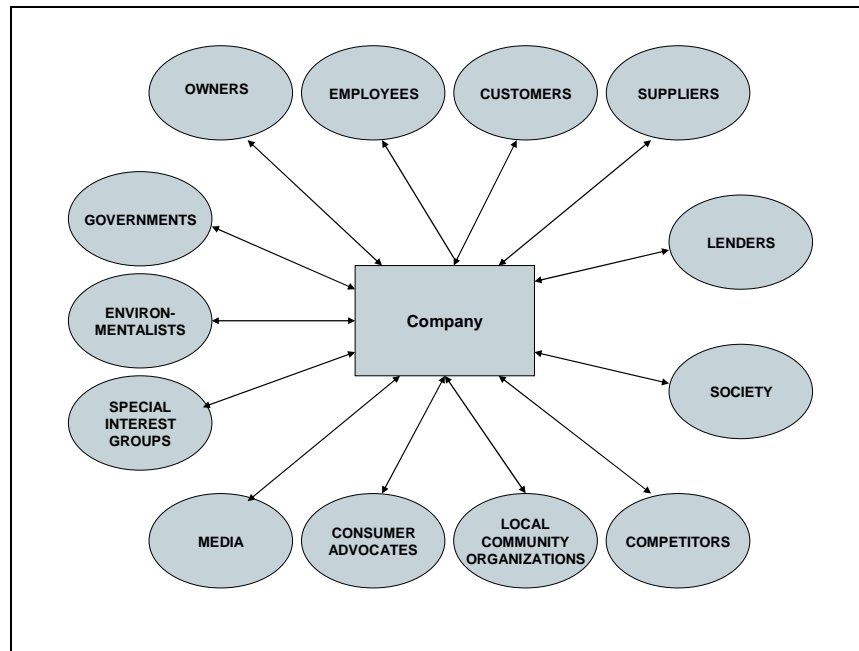
#### **3.1 Defining and grouping stakeholders of a firm**

A stakeholder in an organization is any group or individual who can affect, or is affected by, the achievement of the organization's objectives (Freeman 1984 p. 46). Stakeholders include all the individuals, groups, and other organizations that have an interest in the actions of an organization and that have the ability to influence it (Savage et al.1991, p.61).

According to the definitions of a stakeholder presented above, one can make a conclusion that stakeholders have a great influence on a company's success. This is supported by both Freeman and Savage et al. who have concluded that paying attention to stakeholders is the only way to sustain the creation of value over time (Freeman 1994) and understanding stakeholder interests can help managers make their firm succeed (Savage et al. 1991, pp. 61-75). Stakeholders' significant implication in a company's success is the reason why stakeholder thinking and management have to be considered while defining company's value creation activities.

According to Freeman (1984), earlier thinking was that companies can be established to serve stockholders, or they can be established to serve stakeholders. Nowadays, it is important that the company is profitable and it serves its stakeholders. Each stakeholder is dependent on other stakeholders and is able to create business only in deep cooperation with all participants of the business environment. (Freeman et al. 1997, pp. 287-289) Cooperation and interaction between the different stakeholder groups are in a key position when creating value for companies. Today, companies have understood it quite well.

Originally, the list of stakeholders includes shareowners, employees, customers, suppliers, lenders, and society (Freeman 1983 p. 89). Näsi (1995 p.22), has defined the list more explicitly. It also includes management, government, community, media, unions, consumer groups, and environmental groups. Those groups represent typical stakeholders, and the list shows the diversity of the business environment. Figure 3 describes a simplified stakeholder map of the company, which takes into account all of those groups and individuals that can affect, or are affected by, the accomplishment of the organizational purpose.



**Figure 3.** Stakeholder view of the firm. (adapted from Freeman 1984, p. 25)

The stakeholders can be grouped in several different ways. Firstly, it is possible to place stakeholders in their different environments (Carrol 1989) like economic, technological, social and political environments. The other main way to group stakeholders is to divide them according to the type of change in which they are involved (Näsi 1995, p.22). Those types are internal and external change. Internal change requires continuous reassessment of the current objectives and policies in light of new demands by groups we are used to dealing with such as customers, employees and their unions, stockholders and suppliers. External change is the emergence of new groups, events, and issues which cannot be readily understood within the framework of an existing model or theory. (Freeman 1984 pp. 8-13) The third option is to divide stakeholders to primary and secondary stakeholders. Primary stakeholders are those who have formal, official, or contractual relationships and have a direct and necessary economic impact upon the organization. Secondary stakeholders are diverse and include those who are not directly engaged

in the organization's economic activities but are able to exert influence or are affected by the organization. (Savage et al. 1991, p.62)

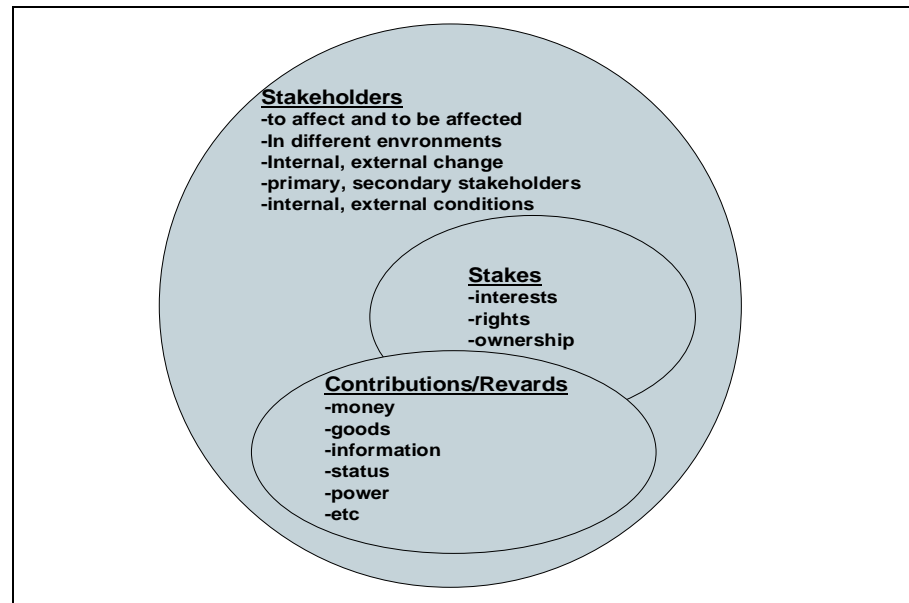
All of these above mentioned approaches to group the stakeholders have their own pros and cons. The clearest approach could be the last option that divides stakeholders into primary and secondary groups. This is very clear and easy to understand. However, at the same time, it might be too steep in some situations. This is because the lines between important and necessary economic impact of stakeholders are sometimes vacillating. The most important issue is to recognize stakeholders that are vital for the company's success. Lotila (2004, p.14) claims that the importance of each stakeholder group depends on the type of business and each company's needs.

### **3.2 Inputs and expectations of the stakeholders**

Each stakeholder is a service provider and receiver. In other words, they give something and also have expectations about what they receive. In figure 4, the stakeholder concept is illustrated. According to Carrol (1989), a stake is an interest or share in an undertaking. A stake can be a legal or moral right or ownership.

Contributions are what stakeholders give to the company and the rewards are what they are expecting for it. Both contributions and rewards can appear in many forms, such as money, goods, information, status, power, prestige and so on.(Näsi p. 23)





**Figure 4.** The stakeholder concept. (Näsi, 1995 p. 23)

There are as many different expectations as there are stakeholder groups. Owners expect different rewards compared, for example, to employees and customers. They can also have same expectations but the way they get them might be different. Both owners and the state have also economic expectations and, for example, owners get money through dividends and the state through taxes. Stakeholders have two different ways to get rewards. The first one is to raise rewards benefiting their own stakeholder group. Every stakeholder is interested in growing its own rewards either on expense of the others or by the means of growing its absolute share. The second way is to take part in deciding the company's goals and the way how the goal is gained. (Ahlsted et al. 1971, p.15). As we see, everybody wants a bigger share, and there we come to the management problem. Freeman et al. (1997, p. 287) say that "*The issue is one of balancing the interests of these groups, not picking one at the expense of the other*". Every stakeholder wants to benefit from the success of a company. It is important that contributions and rewards between organizations stay in balance and every stakeholder group gets no more than it deserves.

### **3.3 Stakeholder management**

In the previous chapters, it was mentioned that stakeholders have a big influence on the future of the company. This is the main reason why stakeholder management has to be taken into consideration. It is one of the main tasks of the management to define the company's goals to satisfy all stakeholders and based on that develop the company's functional goals (Ahlsted et al. 1971, p. 20). As stakeholders become more active toward, knowledgeable of, and interdependent with an organization, management becomes critical (Savage et al. 1991, p. 62). In defining the company's strategy, stakeholders have to be taken into account and interaction with stakeholders should be everyday routine.

There are several general ways to define key stakeholders, and according to Savage et al. (1991, p. 63), stakeholders' significance depends on the situation and the issues, and the managers must have appropriate methods to deal with and manage different stakeholders. Managers have to identify and take into account the stakeholders' power to influence a company's operations. Savage et al. (1991, p. 63) claim that managers have to evaluate stakeholders' potential to threaten the organization and their potential to cooperate with it. Successful companies have to find the most appropriate stakeholders and co-operators for company's own purposes and needs. Some stakeholders might have more power than others but no one can build a company without the support of the main stakeholders. As persons are different so are stakeholders also, and some stakeholders demand more and some just abide by their destiny. Managers have a big responsibility to handle all those stakeholders and keep them satisfied and not favor a certain group. The criteria for judging the importance of stakeholders will vary by organization and by the values of its managers (Freeman 1984, p. 159).

Freeman (1984, pp. 152-159) claims that strategic programs should be developed individually for each important stakeholder group and resources must be allocated to deal with those groups which are vital for the future success of the company. Firstly, managers need to understand the importance of stakeholders and then recognize which are the vital groups and stakeholders for the company and what are the perceived stakes (Freeman 1984, p.53). Managers of the company have the responsibility to take stakeholder groups into account and not to think that someone else will do that. Different organization units and unit managers are responsible for taking certain stakeholders into account and being in touch with those groups. Marketing managers and personnel managers have different stakeholder maps, and for instance marketing managers' typical stakeholder map includes, for example, advertising agencies, marketing research, sales organization and R&D managers, whereas personnel managers' typical stakeholder map includes for example unions, department of labor, training staff and unions (Freeman 1984, pp. 227-231). Still, some stakeholders are treated in a different way from others and that might lead to conflicts between the company and other stakeholders. It is also stakeholders' task to be in contact and demand information and together improve communication between companies.

### **3.4 Corporate social responsibility and stakeholders**

Corporate social responsibility (CSR) and stakeholder thinking are linked together in a certain way. A company's social responsibilities are actually responsibilities to its stakeholders. CSR consists of economic, environmental and social responsibilities ruled by law and the company's own values and business principles. (Lotila 2004, pp. 3-7) Wheeler et al. (2003, p. 2) claim that CSR is an intangible asset and it is good to take into account while thinking company's reputation and brand value.

Reporting CSR to stakeholders is still poor even though especially environmental and social issues have become more important in building corporate image. Companies want to show their stakeholders that they act in a responsible way, and an annual report is not a sufficient way of doing that. The main aim of CSR reporting is to give a comprehensive picture of the interactions between the organization and its external environment (Lotila 2004, pp. 24-25), and giving that picture requires more from management. There are three responsibilities that companies have to take into account to satisfy all stakeholders: to create economic, social, and environmental value (Wheeler et al. 2003, p. 16). A company has to keep stakeholders continuously aware of these responsibilities. No one is forcing companies, excluding laws, to invest in CSR and reporting about it but these days it has become a sign of a responsible company that cares about its environment and society.

### **3.5 Stakeholders of a municipal non-profit company**

As the figure 3 shows, the list of different stakeholders is quite long and stakeholders of different kinds of companies are varying. Linnamaa and Sotarauta (2000, pp. 34-35) say that key stakeholders of a municipal business development company can be for instance cities, entrepreneurs' interest groups, universities, TE centres, and other financial institutions, and key companies that are important for the region's success. Differences come through relationships between different stakeholder groups. Municipal companies are more related to governments, political groups, owners, and other public organizations, while common companies deal more with their suppliers, employees, customers, and competitors. (Linnamaa and Sotarauta 2000, pp. 34-35) For business development companies it is important to work together with cities, financial institutions, and key companies to increase the welfare of the region. For common companies it is instead more important to improve the company's own

activity together with its suppliers and to challenge its competitors in markets.

Stakeholders have a significant role in a company's success and they have to be taken into account when doing business. Good relationships with them are vital. Their contributions and rewards can take many forms, and managers have to be able to balance these things.

One remarkable issue to notice is the difference between a traditional company's and a municipal development company's key stakeholders. Also the stakeholders' inputs and expectations between these companies are different. Whereas a traditional company's stakeholders, for example, expect economical rewards, a business development company's stakeholders have different expectations. These expectations are described more specifically in the empirical part of this thesis.

## 4 VALUE CREATION AND VALUE CHAIN

In this chapter, Porter's value chain and another accurately reasoned value chain model are presented; the latter is called the added-value chain. The added-value chain is selected because it has been formed to complement Porter's value chain, and the aim is to build the case company's value chain based on Porter's creation and added elements from the extended value chain developed by McPhee (2006). In the empirical part, these added elements are utilized to find out stakeholder thinking and brand value to the value chain. Analysis of the company's business environment can also be approached from the value network point of view. This approach takes also suppliers and other stakeholders into account. In this thesis, the analysis is made by the value chain analysis. In addition, the value chain approach was chosen by the CEO of the company. In the next chapter, the concept of value and value creation is introduced to help to understand the value chain thinking.

### 4.1 The definition of value

There are several ways to define the concept of value, and the definition depends on which perspective value is examined. Forsström (2005, p. 18) divides value analysis in three perspectives: 1) the value of an offering, 2) the value of a relationship, and 3) the value created in a relationship.

In the first perspective, Porter's (1985, p. 38) definition of value includes *the value of an offering*. The definition is "*the amount buyers are willing to pay for what a firm provides them*". This definition claims that the value can increase in two ways, by reducing the costs or increasing the performance of the product or service. In *the value of a relationship* the definition of value becomes wider. It includes more than monetary value and one definition of it is "*a ratio of benefits received versus burdens*

*endured by the customer*". (Ulaga 2001, p. 318) One often used definition of relationship value is "*a trade off between benefits and sacrifices*", confirmed by many authors. Relationship value is difficult to quantify, because there are several things that have to be taken into account while creating value in relationships between partners. (Forsström 2005, p. 19)

## 4.2 Value creation

An important issue is to distinguish concepts of *value* and *value creation*. According to Forsström (2005, p. 49), value is a subjective assessment of the trade-off between benefits and sacrifices, when value creation is the process through which the buyer and seller utilize each other's resources to co-create value.

In Porter's value chain, internal processes describe how customer's value accumulates in every phase along a chain of activities that lead to end products or services (Porter 1985, pp. 34-35). According to Normann et al. (1993, p. 65) and Cartwright et al. (2000, p. 23), value chain analysis and traditional value thinking is logical for companies that produce tangible products, but that perspective is not wide enough when thinking of today's intangible products and services. Global competition, changing markets, and new technologies are opening up intangible-based possibilities of creating value, and the leading companies do not just add value, they reinvent it. In the marketplace such intangible assets the value incorporates are for example leadership quality, innovative capability, brand equity, and competences in strategic-alliance development (McPhee et al. 2006, p. 40). Companies work together to co-produce value, and the more companies help other participants of the constellation, the better the chances to gain own success are. Normann et al. (1993, pp. 65-69) support that claim by saying "*companies create value when they make not only their offerings more intelligent but their customers and suppliers more intelligent as well*". Also Wheeler et al. (2003, p. 19) claim

that sustainable value creation requires an ability to build value-based networks where all stakeholders see merit in their association with and support for business. When talking about value creation in relationships, Chesbrough (2003, p. 33) uses the term *open innovation*, whereas old paradigm was called *closed innovation*. The closed innovation is a view that says “*companies must generate their own ideas and then develop them, build them, market them, distribute them, service them, finance them, and support them on their own*”. Open innovation paradigm is a complete contrast to closed innovation. Nowadays companies have realized that not all the smart people work for their company and accepted that they can use both internal and external ideas, technologies, and resources to create value. (Chesbrough 2003, pp. 33-37) This approach has forced companies to change their business models to gain the attainable benefits.

According to Forsström (2005, p. 51), value is conceptualized into two broad categories, substantial value and cognitive type of value. Substantial value deals with reduced costs, increased revenues, enhanced transaction efficiency, improved coordination, profit, volume, and economies of scale and scope. Cognitive type of value deals with creating new markets, new products and services, by means of discovery and innovation, learning and sharing of knowledge, risk sharing, competence, market position and social rewards. (Forsström 2005, p. 51) In this thesis, both types of value are discussed. On one hand, substantial value is dealt with when defining the processes whose aim is to reduce costs, for example standardising processes. On the other hand, cognitive type value is dealt with when defining the case company's value creation to customers.



### 4.3 Value chain

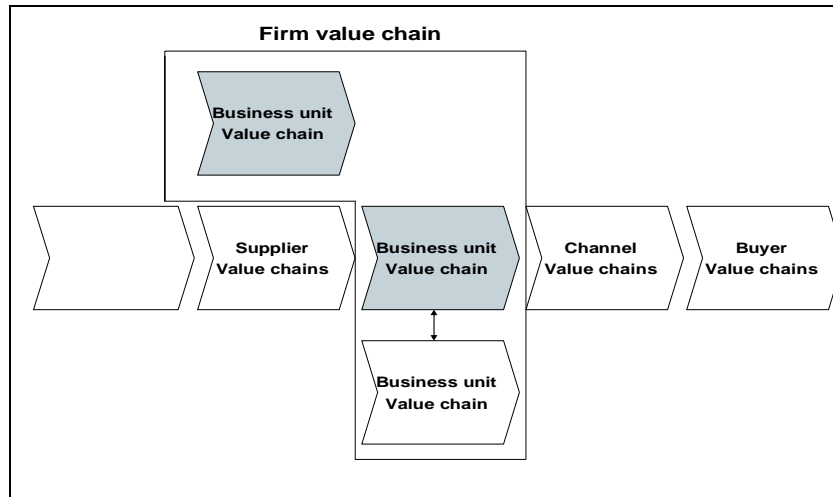
Value chain is a basic tool for diagnosing competitive advantage and finding ways to create and sustain it (Porter 1985, p 33). The purpose of the value chain is to assist companies to evaluate and select the optimum set of activities and methods of performing them to create the most value for the company (McPhee et al.2006, p. 45). Porter has described many techniques of creating and sustaining competitive advantage, and the value chain analysis is only one of those techniques. Value chain enables companies to distinguish themselves from other companies in many categories and at the same time get a wider view of the business environment. Companies can create and sustain competitive advantage by performing the activities more effectively or better than competitors. Every category may be vital to competitive advantage depending on the industry (Porter 1985, p. 40).

Every company consists of activities that are performed to design, produce, market, deliver, and support its product. A company's value chain and the way it performs individual activities are a reflection of several things. These things are the company's history, its strategy, its approach to implementing its strategy, and the underlying economics of the activities themselves (Porter 1985, p. 36). The company's activities are in key position when it wants to be distinguished from other companies. The general model of value chain can be adapted to every company and every branch of business, but still every value chain has to be designed to meet the company's specific needs.

During the past ten years, the business environment has changed dramatically and is different than a decade ago. According to Dennis et al. (2004), one of the biggest emerging changes in business today is the way companies link to other companies. He continues that when competing in today's business environment, companies need to interact with their

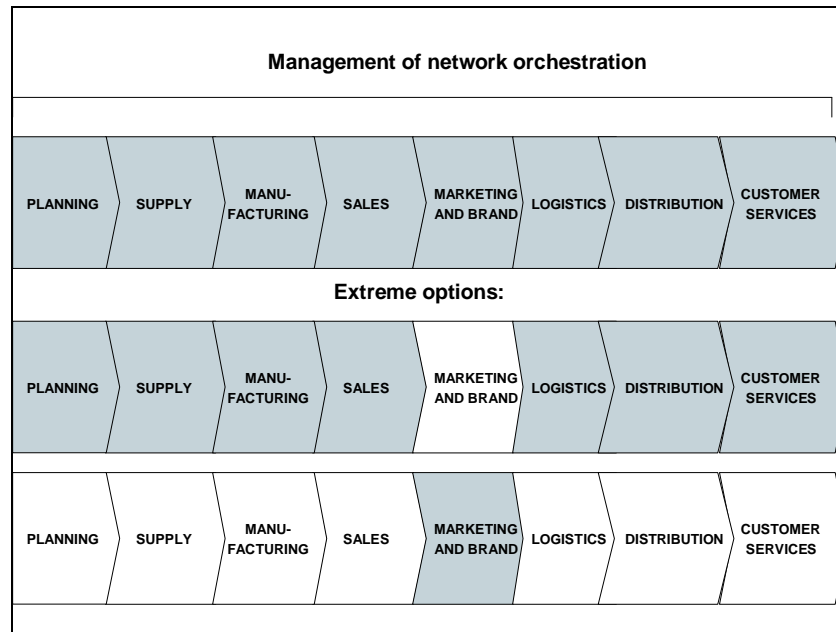
competitors, not only as buyer and seller, but also as associates, partners or allies, cooperating to provide a beneficial outcome to each other and to customers. (Dennis et al. 2004 p.510) This can be done by joining into networks with other actors. Hallikas et al. (2004, p. 47) claim that in many business environments, joining networks is almost inevitable to help companies to respond to the needs of fast changing markets. In network collaboration, companies deepen their relationships between other actors and thus become more dependent on each other. Collaboration benefits companies in many ways. The benefits are for example decreased transactions costs, ability to concentrate on core competences, access to key technologies, and risk sharing among partners. (Hallikas et al. 2004, p. 48) It seems that competition nowadays emerges between networks, not only between separate companies. Due to that, value chain should also include activity which takes the company's relationships with other value net actors into account. (see e.g. Möller et al.) Intangible assets are also in a key position in today's business environment, and they have to be linked to the value chain. The shift from tangible to intangible factors in business environment is in a key position while building winning strategies for a company (Eustace 2004, p.588). The elements added to Porter's value chain ensure that all these factors are noticed in defining the case company's value chain.

A firm's value chain is embedded in a larger stream of activities, and Porter (1985 p. 34) uses the term value system. According to Porter (1985, p. 34), the value system describes the value creation of a product or service from the suppliers' value chain through the company's own and connects the value chain with the buyers' value chain, which finally determines buyer needs. This is illustrated in figure 5. If a company wants to gain competitive advantage and sustain it, it is also important to understand how the company fits in the overall value system. Porter (1985, pp. 34-36) claims that to construct a value chain in a company level is appropriate because an industry or a sector-wide value chain may obscure important sources of competitive advantage.



**Figure 5.** The value system. (Porter 1985, p. 35)

Nowadays companies should concentrate on their core activities and outsource other activities to improve their competitive position in markets (Van Weele 2002, p. 8). Companies have many options on which to concentrate to create value for customers with other members of the value system. Companies can concentrate on only one section or they can take care of all sections of the value chain. Those extreme cases of the value chain are illustrated in figure 6. The concentration depends on the company's strategic choices and capabilities. As an example, figure 6 illustrates the value chain of a manufacturing company. Figure 6 shows the extreme options how a company serves its customers with the products and services that cover the entire value chain excluding the marketing and management of the customer's brand. The other option is when a company is concentrating only on marketing and management and externalizing all the other activities. (MET, 2005) Figure 6 is utilised in the empirical part of the thesis (chapter 7.2) to clarify Innovation's value creation for its customers.



**Figure 6.** Alternatives for concentrating in the value chain. (MET, 2005)

The value chain can also play a central role in designing the organizational structure. Organizational structure groups certain activities together under organizational units such as marketing or production (Porter 1985 p. 59). The aim of this thesis is to find out and to describe the case company's value activities and study how these activities could be grouped by using the value chain concept. The role of value chain in designing the case company's organizational structure is not concluded in this thesis.

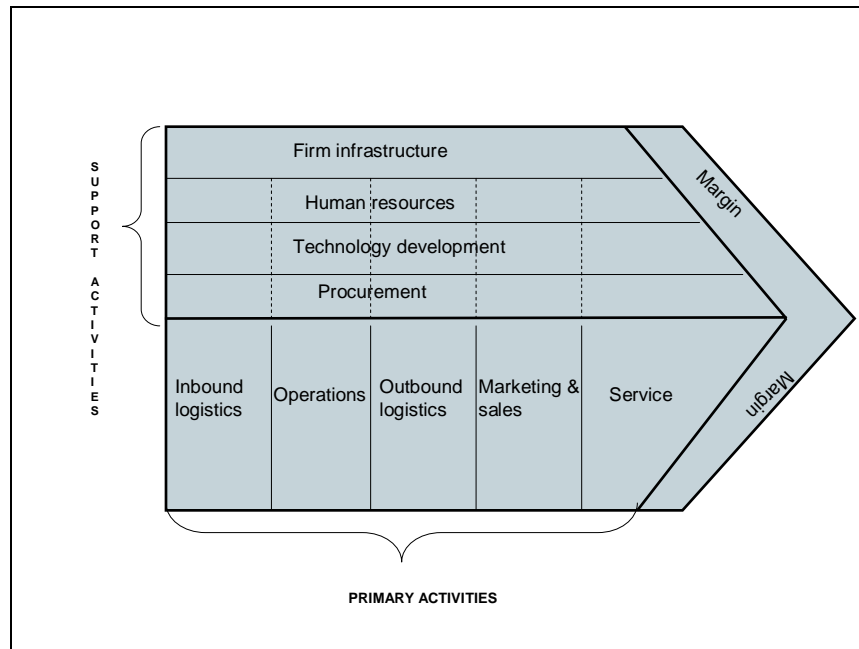
#### 4.3.1 Porter's value chain

According to Porter (1985, p. 33), the value chain disaggregates a company into its strategically relevant activities in order to understand the behavior of costs and the existing and potential sources of differentiation. By creating and using a value chain, the company can identify its strategic activities, and in that way help to understand how the company works. Although a value chain consist of competitive advantage, in this thesis, it is not examined that precisely. The most important goal is to understand the

concept of value chain and through it identify the case company's value activities and value creation for the company itself and its customers.

Porter (1985 pp. 38-45) divides strategic value activities into primary activities and support activities. Primary activities include inbound logistics, operations, outbound logistics, marketing and sales and service. Support activities include activities like procurement, technology development, human resources and firm infrastructure (See figure 7).

*Primary activities* are the activities involved in the physical creation of the product and its sale and the transfer to the buyer as well as after-sale assistance. Each category is divisible into a number of distinct activities that depend on the particular industry and company strategy. *Support activities* support the primary activities and each other by providing purchased inputs, technology, human resources, and various company-wide functions. As with primary activities, each category of support activities is divisible into a number of distinct value activities that are specific to a given industry. The company's margin is the difference between the total value and the cost of performing the value activities. (Porter 1985 pp.38-45) Primary and support activities are discussed more specifically in chapters 5 and 6.



**Figure 7.** Porter's general value chain. (Porter 1985, p.37)

Porter's general value chain has also met criticism in the changing business environment and as mentioned earlier, other options such as value networks and value nets have been introduced to respond to today's unstable business environment. For example, Eustace (2004, p. 589) claims that "*value chains always had a limited life in competitive markets, but are now eroding much faster than in the past*". That is true but of course, a company has to revise its value chain as it has to revise its marketing and other strategies too. Value chains are not out of fashion if we look at some companies such as Eitel Networks Ltd, Lemminkäinen Ltd and several other companies. Companies use the value chain concept based on Porter's general model. Porter's model has gained a central position in real-life business, and therefore it still has and will have this place.

Porter also takes suppliers and other partners and their influence on a company's success into consideration but does not emphasize brand and reputation so much, which both have a significant role in today's business.

Porter has met criticism because he has excluded suppliers and partners of value chain and concentrated mainly on internal activities. Linkages and relationships between suppliers are not a zero sum game in which one gains only at the expense of the other, but a relationship in which both can gain. Porter sees this relationship management as challenging, because companies' information systems in two decades ago were not good enough. (Porter 1985, pp. 50-52) The increasing role of information technology has made it possible to manage customers and suppliers better. In that way, cooperation benefits all participants.

Hines (1993, p.15) argues that the focus in Porter's model is on the profit margin, not the consumer's satisfaction. The consumer's satisfaction should, at least these days, be the company's primary objective. Without the consumer's satisfaction a company does not live long regardless of how low the costs of making its products are. One reason could be that the value in the value chain is created internally and Porter compares the value creating in every phase to other companies. As already mentioned, the value chain is a tool to gain competitive advantage and distinguish from other companies. This is partly the reason why Porter is not paying so much attention to customers.

#### **4.3.2 Added-value chain**

Based on changes in the business environment there are more factors to be taken into account when researching the value chain. Porter's value chain describes the main issues in creating value through supplier-firm-customer relationship. Also Freeman (1997, p. 291) and McPhee (2006, pp. 39-41) suggest that relations with communities, educational institutes, governments etc. are sources of value creation, and those groups can hardly be captured in Porter's general value chain. In chapter 3, the importance of stakeholders to a company's success was clarified, and that is why they have to be included to the value chain. A company's reputation

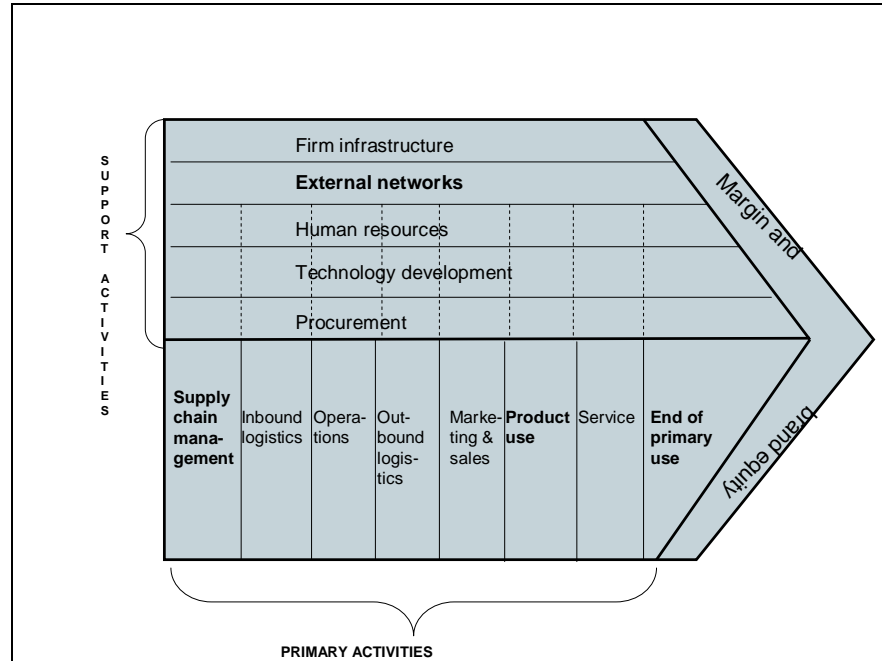
and brand equity have also become more important, and now these specific features are taken into consideration in added-value chain (McPhee 2006, pp. 40). These two aspects are also the reason why the added-value chain is examined and utilized when defining the case company's value chain. In the present business environment, reputation and brand have a great influence on getting new suppliers, searching financiers or recruiting employees. Due to that, every company invests time and resources in the creation of company image and brand.

The added-value chain is not just a collection of additional elements to the original value chain created by Porter. Successful companies are now taking broader view of the company into account as a part of the surrounding world, instead of focusing only on internal strategy-development models. The reason why those activities have added to the value chain, have become from traditional tools like PEST (political, economic, social, and technical factors) and Porter's five forces framework (threat of substitutes and customers, and power of suppliers and buyers), not forgetting resource-based, stakeholder- and network-based approaches to strategic management. (McPhee 2006, p. 40) Ecological aspects should also be taken into account while planning the company's activities because of environmental regulations and the consumers' awareness of ecological things. The added-value chain incorporates the strength's of Porter's general model with current thinking on business strategy to help address the modern challenges and current realities facing the company (McPhee 2006, p.45).

McPhee (2006, pp. 40-41) has added extra elements in Porter's value chain, and those elements include both primary and support activities. The primary activities included are supply chain management, product use and end of primary use. The extra support activity included is external networks. Those activities added to the value chain take into consideration all the present requirements that companies' have to take care of. In addition, no strategic activity that could create or add value is forgotten.



This is illustrated in figure 8, where extra elements are marked with bold text.



**Figure 8.** The added-value chain. (McPhee et al. 2006 p. 41)

Compared to Porter's value chain's "margin", MCPhee uses "margin and brand equity" to describe the difference between the total value and the cost of performing the value activities. In figure 8, the added-value chain converts the definition of "value" from profit margin alone to the sum of net margin plus brand equity and other intangible assets. (McPhee 2006, p. 40) It is clear that brand and intangible assets can increase value both short-term and longer-term, but the problem is how to measure these things. The next chapter introduces the definition of the value chain more specifically.

#### **4.4 Defining the value chain**

Before defining the value chain, a company has to know what they are doing and how to satisfy their customers. Based on the general value chain, value activities can be identified to the particular company. Defining relevant value activities requires that activities with discrete technologies and economics should be isolated and as earlier noted; broad functions must be subdivided into activities. (Porter 1985, p. 45) In the empirical part, the case company's activities are examined in detail and defined appropriately.

One important issue is the fact that everything the company does is captured in a primary or support activity. The challenging part is to put activities in order because companies often perform parallel activities and especially in the service industry some activities are often closely tied together. One has to remember that the value chain is not just a collection of independent activities but a system of interdependent activities which are supervised by managers (Porter 1985, p.48), so companies and their managers have to be able to create linkages between those activities. Nowadays, companies are more and more related to other organizations in their business environment and that increases the challenges in defining the value chain and putting activities in order.

This chapter introduced different definitions of value and ways of creating value. There are still many ways to define and create value in different situations, but these definitions introduced above clarified the meaning of value and value creation in this thesis. One has to remember that value is a subjective concept and there is no value if it is a not value for someone (Forsström 2005, p. 19). In addition, this chapter also introduced Porter's value chain and its value activities. Also McPhee's added-value chain and its value activities were presented. Both Porter's and McPhee's value activities are discussed more specifically in the next two chapters.

## 5 PRIMARY ACTIVITIES

In this chapter, the primary activities of the Porter's value chain and the added-value chain are presented and the main activities that are necessary for the case company are discussed in detail. The primary activities consist of several activities:

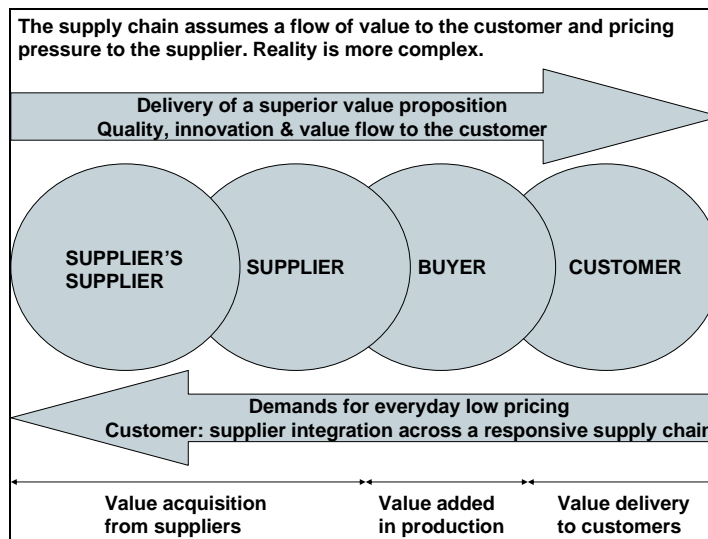
- supply chain management
- inbound and outbound logistics
- operations
- marketing and sales
- product use
- end of primary use
- information logistics
- planning.

Activities that originally belong to Porter's and McPhee's value chains are presented first and other activities after them. The reason for this is that these activities belong to the case company's value chain and have to be taken into account. These two activities are information logistics and planning. In addition, the sub-processes for planning are presented, because introducing the planning process helps the reader to understand the choices made and the criteria used in the empirical part. Those activities are partner selection and concept planning. The role and the reasons for every activity used in the case company's value chain are clarified in the empirical part of the thesis. If necessary, every activity should include the four following phases: general description of the activity, the steps or elements of the activity, the way the value is created in activity, and linkages to other activities.

## 5.1 Supply chain management

Supply chain management activities involve the interaction of a company with its suppliers such as product quality, research and development, product development, partnerships, and sharing production knowledge. Companies create value in cooperation, and managing the supply chain has become a primary activity of a company. (McPhee et al. 2006 p. 41) McPhee et al. (2006, p. 41) argue that taking the supply chain management directly to the value chain may be hard to accept for strategy traditionalists, but it is sure that interactions and relationships between companies and their suppliers have become far more complex. Ketchen et al. (2006, p. 2) claim that “*supply chain management has elevated from a function that supports strategy to a key element of strategy*” and continues that “*its emphasis is on matching the chain’s approach to each problem to the nature of the problem that needs to be solved*”.

The supply chain management is a strategic tool (Ketchen et al. 2006, p. 2) like the value chain. In this thesis, its activities are described more specifically together with other activities. Lysons and Farrington (2006, p.101) argue that supply chains and value chains are synonyms, and that is actually true. In the value chain, activities are described internally and suppliers and customers belong to the concept of value system (Porter 1985, pp. 33-34), whereas the supply chain takes suppliers and suppliers’ suppliers and the end customer into account to create value (figure 9). Some of the units in a supply chain are located inside a single organization’s borders while others cross such borders in complex and evolving ways (Ketchen et al. 2006, p. 1).



**Figure 9.** Simple supply chain thinking. (Hughes et al. 1998, p. 3)

Supply chain management consist of all activities, information, knowledge and financial resources associated with the flow and transformation of goods and services up from the raw materials suppliers, component suppliers and other suppliers in such a way that the expectations of the end users of the company are being met or surpassed. (Van Weele 2002, p. 17) Figure 9 is a model of simple supply chain thinking wherein all these phases exist in a supply process from primary manufacture or creation of a service through to its delivery to an end customer or consumer. (Hughes et al. 1998, p. 3) Managing the business process across the supply chain consist of the following processes: customer relationships management, customer service management, demand management, order fulfillment, manufacturing flow management, supplier relationship management, product development and commercialization, and returns management. (Lysons and Farrington 2006, p. 96) The best value comes when suppliers and suppliers' suppliers work together and have shared goals, values and experiences. These linkages will lead to improved performance which benefits every supplier. (Ketchen et al. 2006, p. 6)

## 5.2 Inbound and outbound logistics

In the empirical part of this thesis, inbound and outbound logistics are replaced with information logistics. That is because case company transfers the knowledge to the next phase of value chain, not concrete raw materials or products. Descriptions and value adding of Porter's inbound and outbound logistics are shortly introduced. The descriptions clarify how logistics in any form can add value created by a company.

The Council of Supply Chain Management Professionals ([www.cscmp.org](http://www.cscmp.org)) has defined logistics management as follows: "*Logistics is that part of supply chain management that plans, implements, and controls the efficient, effective forward and reverses flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customers' requirements.*" The aim of both inbound and outbound logistics management is to tie value chain activities together, as well as integrate logistics activities with other functions in value chain. (Karrus 2001, p. 28, and [www.cscmp.org](http://www.cscmp.org)) The added value emerges in well planned and managed activities linked together, not separate stages or departments. (Karrus 2001, p. 211) The company can utilize specialists to plan and manage logistics processes and outsource company's logistics and concentrate only on strategic activities to add value. (Ellram 2000, p. 72)

Inbound logistics includes activities that are associated with receiving, storing, and disseminating inputs into the product, such as material handling, warehousing, inventory control, vehicle scheduling, and returns to suppliers. (Porter 1985, p. 39) Ellram (2000, p. 79) has also recognized the same logistics activities associated with inbound material movement. They are inventory monitoring, order placement, order receiving, and stock put away.

Outbound logistics includes activities associated with collecting, storing, and physically distributing the product to buyers, such as finished goods warehousing, material handling, delivery vehicle operation, order processing, and scheduling. (Porter 1985, p. 40) Outbound logistics will happen in the same way as inbound logistics but inside the company.

### **5.3 Operations**

Operations are activities that are associated with transforming inputs into the final product form, such as machining, packaging, assembly, equipment maintenance, testing, printing, and facility operations (Porter 1985, p. 40). Operations are activities after which products or services are ready to use and bring money for a company. In this thesis, projects is the activity the funding is made through to the case company. That is also the reason why the theory of projects and steps of managing a project are introduced.

*“A project is a problem scheduled for solution.”* (J.M.Juran) Projects will have a start date and an end date. In addition, the produced product or service is something what the company has not done before. The aim of project management (PM) is to plan, schedule and control project activities to meet project goals (Lewis 1997, p. 2). To achieve the desired goals, project management steps must be clear and generally known inside the company. The steps are defining the problem, project planning, implementation, monitoring and controlling, and closing the project (Lewis 1997, p. 7). These are discussed in the following paragraphs.

Defining the problem helps to visualize the desired end result and the gap between where you are and where you want to be. Goals and targets should also be defined to fulfill customer needs and to make solution options easier to develop. To develop many solution options together with the customer and the project team helps to identify the criteria for success

and to define possible project risks and obstacles. (Lewis 1997, pp. 7-8) When problems and goals are accurately defined, they are easier to solve. This also helps to define the problem and to do the needed operations to get the desired end result.

Project planning is the most important task to do when starting a project. If there is no plan, there is no control and nothing to compare the results with. Utilizing project management tools helps to plan and control the project. The project plan should consist of a main target and sub-targets and a precise description of how to achieve these targets and by whom. Defining the needed resources and putting the project team together are also important things to gain success in project management. (Lewis 1997, p. 8) Changes may happen and risks may realize during the project. The project manager has to be able to react to changes and to modify the project plan if needed.

When the plan has been drafted, it must be implemented. It is recommended to arrange a kick-off seminar where the project team is organized and the way of action for the team is defined. Precise descriptions and resource allocations for each assignment are also made and documented in the kick-off seminar. (Lewis 1997, p.8; Pelin 2002, p. 91) After the seminar, everyone has to know their tasks and be able to start and follow the plan to achieve the goals.

Monitoring and controlling the progress is necessary so that the project manager can see if every sub-target is achieved and everything goes as planned. The project members continuously report to the project manager on how the project is proceeding. He or she then leads the team members to the right direction. If operations are not on track, the project manager has to know how to get back on the track, or how the plan should be modified to reflect the new realities. (Lewis 1997, p. 8) Briefly, the project manager has the responsibility to compare the goals with what has been achieved so far and guide the team members to do the right things.



When all the targets are met and the project is ending, the project manager has to get the approval from the customer and finish the documents. The project team members should have a feedback meeting and discuss what was done well and what should be improved for the following projects. (Lewis 1997, p. 8) One purpose of a feedback meeting and a final report is to learn something for future projects. In addition, making the final report helps to identify critical aspects of that are needed from successful project. A project is successful when the goals are achieved and the project has been completed on time and within the budget. Some more criteria can also be set by the project team, such as how people are treated and guided during the project. However, the main aim is to fulfill the customer's needs. (Pelin 2002, p. 41)

#### **5.4 Marketing and sales**

In the value chain, marketing and sales consist of activities associated with providing methods by which buyers can purchase the product and inducing them to do so, such as advertising, promotion, sales force, quoting, channel relations, and pricing (Porter 1985, p. 40). The wider view of marketing also includes customer segmentation, market analyzing, brand building and customer loyalty. All these actions have to be taken into account while planning marketing concept. Marketing is a wide concept and there are several definitions to describe marketing. The American Marketing Association ([www.marketingpower.com](http://www.marketingpower.com)) offers the following definition "*Marketing is an organizational function and a set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders*". This chapter clarifies what the marketing process includes and what the added value for customer and for a company is. Special features of service marketing are also introduced.

Kotler (2000, p. 86) argues that the marketing process consists of analyzing marketing opportunities, researching and selecting target markets, designing marketing strategies, planning marketing programs, and organizing, implementing, and controlling the marketing effort.

Analyzing market opportunities is important in order to identify the company's long-term opportunities to make business in a selected product. The aim is to do marketing research and evaluate the consumers' wants and behavior and also the market size. Surveys can be conducted by researching secondary sources, running focus groups, and using the telephone, mail, and personal surveys. The company has to know how many households plan to buy the products and who buys and why they buy, and so on. (Kotler 2000, p. 86)

After the data has been collected, it should be analyzed and the target market selected and the data should be divided into the major market segments. Then each segment should be evaluated, and the company should concentrate on the segments that are best for the company. (Kotler 2000, p. 86)

When the evaluation has been made, the company has to design a marketing strategy that leads to the best end result. Choosing the strategy depends on whether the company is a market leader, challenger, follower, or nicher. (Kotler 2000, p. 86)

Kotler (2000, p. 87) claims that to transform marketing strategy into marketing programs, managers have to make decisions on marketing expenditures, marketing mix, and marketing allocation. Marketing mix tools are the product, price, place, and promotion (four P's). While marketing goods, the traditional four P's work well but in service marketing additional elements require attention. (Kotler 2000, 434) Booms and Bitner suggested three more P's for service marketing: people, physical

evidence, and process. (For more, see Kotler 2000) These P's can be utilized to form a marketing plan to pursue a defined strategy.

When all these decisions and actions have been made, the company has to organize the marketing resources and then implement and control the marketing plan. In small companies, there might be only one person who is responsible for all these tasks, while in wider organizations there are many persons working with marketing and sales. (Kotler 2000, p.87)

The value in marketing can be seen when the company has met and satisfied the customers' needs. Customers are value-maximizers (Kotler 2000, p. 34), and with the help of marketing, the company increases the value the customers get. The value delivered to customers consists of many aspects, and marketing does not make a bad product a good product. The value delivered to customers consists of image value, personnel value, services value, and product value (Kotler 2000, p.35). The aim of marketing is to find customers and recognize their needs to increase the company's and customers' perceived value. Marketing is linked with other activities, for example promising that products and services produced through the value chain are worth buying.

### **Special features of service marketing**

A company can market and sell products, services or both of them, and the service component can be a minor or a major part of the total offering. This thesis concentrates on pure service marketing because of the case company's requirements.

Services are just acts that some people or company performs to another. Grönroos (2000, p. 47) has identified three basic characteristics for most services:

- 1) Services are processes consisting of activities or a series rather than things.

- 2) Services are at least to some extent produced and consumed simultaneously, so services can not be in stock.
- 3) The customer participates in the service production process at least to some extent.

These characteristics set challenges to marketers, and the marketing in the traditional sense is difficult to do (Grönroos 2000, p. 48). The needs for pure service marketing and product marketing differ. Services can be classified in a number of different ways, and this thesis concentrates on personal services and business services. Service providers have different marketing programs for both personal and business services (Kotler 2006, p. 404). According to Kotler (2000, p. 449), the service organization faces three tasks in marketing. It must differentiate its offer, delivery or image. It must manage service quality in order to meet or exceed customers' expectations, and it must manage worker productivity by getting its employees to work more skillfully in many ways. The next paragraph shortly describes what has to be taken into account in service marketing processes.

While marketing services, important things that have to be paid considered are the comprehensive conception of customers, employees and the company itself. Holistic marketing for services requires external, internal, and interactive marketing. External marketing describes the normal work of preparing, pricing, distributing, and promoting the service to customers. Internal marketing describes training and motivating employees to serve customers well. Interactive marketing describes the employees' skill in serving the client well. Clients evaluate the service by its technical quality and also by its functional quality. (Kotler 2000, p. 412) Before performing the service, it has to be so interesting and well introduced that customers will buy it. The customer does not get anything concrete but a promise that the service will benefit the customer and create value in a certain way (Pandya et al. 2005, p. 2). There are lots of companies in the service industry just because service markets are easy to enter (Pandya et al.

2005, p. 2). If a company wants to gain success it has to market its services properly and develop its own activities working smoothly and efficiently. In other words, the aim is to sell and market the company's own expertise and experience.

## **5.5 Product use**

Product use means activities that are related to how the customer uses the product, including managing customer networks, product testing and development, and outsourcing. The main point in linking the product use with the value chain is that it allows companies to ensure interaction with customers. This is considered an integral part of the value chain for all employees, and it is not just dependent on particular departments. (McPhee et al. 2006, pp. 41-42) This leverages the interaction of customers and the company. The knowledge on how the customers use the product or service also increases. In chapter 4, the various alternatives how the company can concentrate on creating value for the customers with another factor of the value system are introduced. By utilizing this thinking, the company is able to develop its product or service better and at the same time to think if there is a possibility to widen the company's product portfolio.

## **5.6 Service**

Services are activities associated with providing service to enhance or maintain the value of the product, such as installation, repair, training, parts supply, and product adjustment. (Porter 1985, p. 40) Without these activities many products or services are useless. Maintaining services adds customer perceived value. Lately, the thinking has changed over from customer service to customer support. Customer support is a specific type of customer service offered by manufacturers (Goffin and New 2001,

p. 275). Customer support includes all the activities Porter has defined. In addition, Goffin and New (2001, p. 275) claim that it entails all the activities to ensure that a product is available and trouble-free to consumers over its useful life cycle. Kotler (2000, p. 446) claims that customers have three specific challenges that a company has to concentrate on after selling a product or service. Those three challenges that customers are interested in are reliability, service dependability, and maintenance (costs). Those challenges mentioned above take all customers' worries into account.

Goffin and New (2001, pp. 277-278) have defined seven key elements of customer support:

- 1) Installation. Before a customer can use the product or service, it has to be installed. Installation may be performed by the personnel or their representatives.
- 2) User training. Some equipment can be so complex and new for customers that manufacturers have to teach them to use it.
- 3) Documentation. Typical forms of documentation cover equipment operation, installation, maintenance and repair. It can also reduce support cost.
- 4) Maintenance and repair. Maintenance takes into account cleaning, refurbishing or replacing parts of equipment which otherwise would be liable to fail. If equipment fails, fast and efficient repair is vital to keep the customers' satisfied.
- 5) On-line support. Some companies have a helpline where product experts give consulting to customers in problem situations.
- 6) Warranty. Manufacturers' warranties reduce the customers' financial risk of owning the product. Warranty may be included in the price or manufacturers offer customers the possibility to purchase extended warranty.
- 7) Upgrades. Customers have the opportunity to enhance the performance of existing products. For example, computer upgrades

increase the working lifetimes of products by offering newest software and technology.

Customer support creates value in many ways. It can increase the success rate of new product development and directly contribute to competitive advantage. In addition, it can be a major source of revenue for manufacturers. (Goffin and New 2001, p. 276) All the elements mentioned above have been developed for product manufacturing companies, but some of them can be utilized in service producing companies also. For example, the service must be installed and customers must be trained to use these services. In addition, companies have to maintain the service and in some cases they can offer on-line support to help users.

One aim of providing additional services and taking care of the service maintenance is to capture customers in a lock-in situation. Lock-in is a situation where a customer is so dependent on the vendor for products and services that he or she cannot move to another vendor without substantial switching costs, real and/or perceived. This is the situation where every company wants to get and keep their customers.

## **5.7 End of primary use**

End of primary use. Activities related to the management of the product after the customer is finished with it – such as, leasing management, product take-back, management of secondary markets, and recycling. (McPhee et al. 2006, p. 41)

It depends on the industry how effectively products that come off-lease can be utilized. The aim is to capture the product's residual value (McPhee et al. 2006, p. 43), and there are several ways to capture it. According to McPhee et al. (2006, p. 43), products can be refurbished and resold as new, resold into used-equipment channels, sent to the secondary markets,

dismantled and used for spare parts, recycled, and sent to the landfill at a cost. Performing these activities can be a part of service or maybe at its best, an important source of income. It depends on the company's strategy how and to what degree it will take advantage of the products when customers are finished with them.

These elements add value through customer loyalty, better information about customer needs, and enhanced brand image (McPhee et al. 2006, p. 43). As mentioned in chapter 3.4, companies have economic responsibilities ruled by law and their values. Customers and stakeholders appreciate doing these tasks well and the positive image about the company may be consolidated. In addition, the company gets more information about the pros and cons of the product, and also about customers' behavior. That information can be utilized in planning and marketing new products.

## **5.8 Information logistics**

In this thesis, inbound logistics is replaced with information logistics because that suits the case company's business environment better. In this case, information logistics means the way the case company transfers the unrecognized customer needs into practice.

As mentioned earlier, companies have to develop and create something new to succeed in markets. Understanding customer needs first and utilizing this information in developing new products or services is one of the main points in surviving in a rapidly changing business environment. Product development projects that are based on carefully defined customer needs are more likely to succeed compared to those that are based on new technological opportunities (Kärkkäinen et al. 2001, p. 391). Kärkkäinen et al. (2001, p. 391) claim that companies should be able to surpass customers' expectations. Companies that can amaze customers



by anticipating and fulfilling their unarticulated needs may gain significant competitive advantage. (Kärkkäinen et al. 2001, pp. 391-392) By surpassing the expectations a company can create more value for itself and to its customers. Recognizing customers' unarticulated and future needs will lead to more satisfied customers, loyal customers, and also an increased market share. In addition, Kotler (2000, p. 36) claims that high satisfaction and surpassed expectations create an emotional bond with the brand, not just a rational preference.

Customer needs are discrepancies between the existing and the wanted situation that may or may not be recognized. Customer needs are divided into existing and future needs. Existing needs are of a conscious nature and therefore easy to assess, whereas future needs do not exist at present but will materialize later. (Holt et al. 1984, p. 6-8) Hidden needs are needs that customers recognize as important in the final product but are not able to articulate it. (Ulrich and Eppinger 1995, p. 33)

The phases of the process to identify customer needs are: (Ulrich and Eppinger 1995, p. 34)

- 1) define the scope of the effort
- 2) gather the raw data from customers
- 3) interpret the raw data in terms of customer needs
- 4) organize the needs into a hierarchy of primary, secondary, and (if necessary) tertiary needs
- 5) establish the relative importance of the needs, and
- 6) reflect on the results and the process.

This thesis concentrates on phases two, three, and four to clarify how the case company identifies its customers' hidden and future needs and which are the possible methods and tools to do so. These needs are utilized in the next phase of the case company's value chain while creating new concepts.

Ulrich and Eppinger (1995, p. 38) argue that the methods used most to gather the information from customers are interviews, focus groups, and observing the product in use. The needs can be identified efficiently by interviewing a class of customers, which are forerunners in markets, called lead users. The idea of using lead the user method is capturing their present strong needs which will become general needs in a marketplace months or years in the future. (von Hippel 1988, p. 107) In this thesis, main features of lead users are introduced because they are one way to assess customer needs in changing markets.

In phase three, customers' needs are expressed as written statements. The written statements are the result of interpreting the need underlying the raw data gathered from the customers. Each statement or observation may be translated into zero to several customer needs. (Ulrich and Eppinger 1995, p. 43) The accuracy and the way these statements are translated is the observer's responsibility.

In phase four, the aim is to organize the observed needs into a hierarchical list. The procedure for listing these needs hierarchically is intuitive. (Ulrich and Eppinger 1995, p. 46) To classify these needs hierarchically based on their importance is also the observer's responsibility.

There is no single solution or method that is suitable for every situation in identifying customer needs. The wideness of need assessment and approach depends on the situation. (Holt et al. 1984, p. 36-37) There are many sources and techniques to get information about customer needs. The techniques used are, for instance, brainstorming, scenario analysis, focus groups, and quality function deployment. Utilizing these techniques and recognizing used methods have many advantages. They can help to question both the customers' and the company's present traditional ways of thinking and thus help to bring out new ideas and new customer needs (Holt et al. 1984, 1992, in Kärkkäinen 2001, p. 395).

## 5.9 Planning

In this thesis, planning is the next phase after information logistics. Its effects are important in the case company's value chain. In this case, planning means how the case company selects the ideas and partners, and what kind of criteria it uses, as well as the process of reviewing the ideas and creating the best possible concept. The phases of the planning process are: idea selection, partner selection, concept design, and decision.

Idea selection means that gathered ideas are examined more specifically. The selected idea or ideas should meet certain criteria to become selected.

According to Varis (2001, p. 57), partner selection is very important when creating a co-operation relationship. Companies have to review what the complementary knowledge partner can offer, what kind of technology the partner has, what technological capabilities the partner has, and how its values, organizational structure, and motivation are suited with those of the company. The correct partner selection is essential to maximize the benefits of partnership.

Concept design prepares the company for future solutions by exploring different options. (Keinonen et al. 2004, p. 33) In the process of planning and discussion, concept design supports the company. All the created variations of product design do not go into production. (Keinonen et al. 2004, p.10) The aim of concept design is not a perfect description of the product but a description of the fundamental features which divide the concept of all existing products or outlines (Keinonen et al. 2003, pp. 36-37).

In the selection phase, all concepts are examined and the best one is chosen. After that, it has to be decided if the concept is worth building a project around or if the concepts need more design.

In the planning phase, value can be provided in several ways. The selection of appropriate partners helps companies to extend their knowledge and to create competitive advantage (Varis 2001, p. 39). In addition, concept design creates value because it conceptualises and clarifies customers' real needs (Varis 2001, p. 18).

## **6 SUPPORT ACTIVITIES**

This chapter describes the support activities that are mentioned in the value chain created by Porter (1985) and additional support activity defined by McPhee et al. (2006). Support activities consist of several activities:

- procurement
- external networks
- human resources management
- technology development
- firm infrastructure.

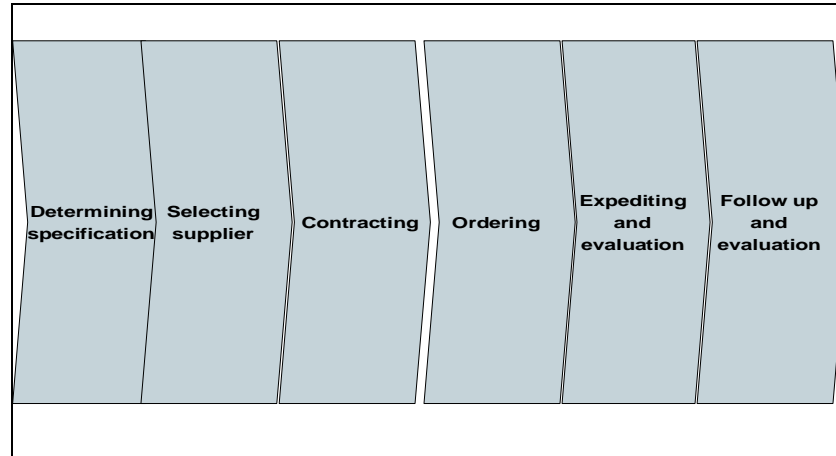
Support activities support the primary activities and enable the value creation.

### **6.1 Procurement**

Procurement refers to the function of purchasing inputs used in the company's value chain, not to the purchased inputs themselves. (Porter 1985, p. 41) Procurement is defined as a support activity because it supports every activity in the value chain. For instance, it supports the primary activities such as getting raw materials for manufacturing department and support activities, for example getting office equipments for accounting department (Van Weele 2002, pp. 12-13) In the service industry, purchasing for the primary activities almost does not exist because service product companies do not have a production process in which inputs are physically transformed to outputs. (Van Weele 2002, p. 327).

According to Van Weele (2002, p. 16), procurement includes all the activities required in order to get the product or service from the supplier to its final destination. This thesis concerns a little narrower area. The aim is

to find out what is included in a company's purchasing process (see figure 10).



**Figure 10.** Purchasing process model. (Van Weele 2002, p. 15)

Determining the specifications includes both functional specifications and detailed technical specifications. Functional specification describes the functionality the product or service must have for the user. Detailed technical specification describes the technical properties and characteristics of the product. In addition, it describes the activities to be performed by the supplier. A company has to prepare detailed specifications of what is needed in many areas. Those areas include quality specifications, logistics specifications, and maintenance specifications, and legal and environmental requirements. In addition, the company has to pay attention to the fact that everything goes within the given budget. (Van Weele 2002, pp. 52-54)

Before selecting the final supplier or suppliers, there are several factors to be taken into account. The company has to determine the method of subcontracting, make preliminary qualification of suppliers and draw up the bidders list, request the quotations from suppliers and evaluate all other relevant aspects. The method of subcontracting, turnkey or partial subcontracting and the potential suppliers' capabilities depend on the

company's requirements. When all potential suppliers have gone through the process, the company has to select the supplier and inform others about the reasons for rejecting their proposals. (Van Weele 2002, pp. 57-59)

Depending on the purchase product or service, there is no single way to make a contract. Companies have to define the way of paying, penalty clauses and warranty periods every time when making a contract. The way of payment might influence the price of the product or service radically and both participants want to negotiate the best price arrangement for their company. The most often used price arrangements in purchase agreements are fixed price plus incentive fee, cost-plus contract, cost-reimbursable contracts and agreement with price-adjustment. (Van Weele 2002, pp. 60-61)

After the contract has been agreed on and every detail recorded, the order can be placed. The buyer should be in contact with the supplier before the delivery and check that everything goes as planned. When the products are delivered, the buyer has to check that they meet the specifications and the quality is satisfactory. The evaluating process will continue also after installation, and all the information can be useful for future projects when choosing suppliers. (Van Weele 2002, pp. 63-70)

In the real world, all the things mentioned above are rarely taken into account and the process is simplified because the aim is to reduce costs. Only when talking about significant single acquisitions should the purchasing process receive that much attention. There are certain things that should always be taken into account and included in the contract. These are product specification, the time of delivery, and price. The suppliers' evaluation has to be taken seriously also. By cooperation there are possibilities to improve the purchasing process. Preparing and handling the purchasing process properly prevents the company from making wrong purchasing decisions.

## **6.2 External networks**

External networks are activities related to the management and interaction of external networks that may include other companies, educational institutions, communities, governments, civic organizations and groups of customers that provide an opportunity to co-create unique value. (McPhee 2006, p. 41) Managing external networks is related to stakeholder management that is described in chapter 3.3. The concept of stakeholders is just wider than the concept of external networks.

It might be difficult to demonstrate empirically how managing external networks add value in a company. However, Wheeler et al. (2006), McPhee et al. (2006) and Freeman claim that brand reputation, innovations, and new product ideas increase a company's value. The company and its suppliers can learn more about consumers and get new ideas for creating a new product or service. The benefit realizes when employees can more deeply understand consumers' aspirations, behavior, and motivations to buy. (Prahalad et al. 2004, p. 6) Companies are forced to concentrate on searching partners that have complementary skills and on creating unique value with those partners.

## **6.3 Human resources management**

Human resources management consists of activities involved in the recruiting, hiring, training, development, and compensation of all types of personnel (Porter 1985, p. 42). In the field of human resources management, the long-term policy is created by defining a human resources strategy, which supports and is in line with the company's business strategy. It includes all the activities that are necessary for controlling human resources, ensuring the needed knowledge, and the



maintenance of the employees' welfare and motivation. (Strömmer 1999, p. 10) Employees are a company's most important resources. According to Strömmer (1999, p. 13), a company's chosen strategy can only come true through capable and motivated employees. It depends on the employees how quick, to what extent, and in what form the chosen strategy comes true.

Strömmer (1999, p.16) claims that human resources management consist of four central roles. These central roles are strategic human resources management, managing firm infrastructure, the guidance and support of employees, and managing renewal and changes.

Strategic human resources management enables and supports the company's executives to reach the set targets in long-term and increase the competence of a company (Strömmer 1999, p. 16). When creating a human resources strategy, the knowledge and employees needed for the business strategy are reviewed and compared with the present situation of the company. The plan is created ensuring the resources. The strategy paves the way for daily operations. (Strömmer 1999, p. 52)

In the field of managing a company's infrastructure, systems and models that form the basis of how the organization is born, developed, and how it operates are created. This means organizing and managing effective recruit and development processes, incentives, career planning processes, and personnel services. (Strömmer 1999, 16) The aim of managing a company's infrastructure is to find the right people for the right positions at the right time and after that offer them challenging jobs where they can develop and utilize their skills to improve the company's success.

The guidance and support is everyday interaction with the personnel. Its aim is to increase the employees' commitment to their tasks and create conditions for profitable and motivated working. (Strömmer 1999, p. 16) An

open and confidential atmosphere makes organizational learning possible. (Strömmer 1999, p. 63)

Managing renewal and changes consists of the changing of organizational culture and the development of the fluency and the speed of the change. (Strömmer 1999, p. 16) Organizational learning requires the conscious creation of a culture that supports it. (Strömmer 1999, p. 61)

## **6.4 Technology development**

According to Porter (1985, pp. 41-42), technology development consists of a range of activities that can be broadly grouped into efforts to improve the product and the process. Technology development may support any of the numerous technologies embodied in value activities. Porter uses the term *technology development* instead of *research and development (R&D)* because he claims that R&D has a too limited meaning to most managers. In this thesis, the aim was to clarify changes in the present business environment in general, instead of the development of R&D.

The business environment has changed from traditional industrial economy to a knowledge based economy and services. (Karlsson & Johansson 2004, p. 3; Varis 2001, p. 7) Technology development is now faster and more complex and products' life cycles are now shorter than they used to be. The costs of R&D are higher than a decade ago and regardless of investments there is no guarantee that a product will have success in markets. (Rothwell 1994, pp. 7-13) The point is not the fact how much money companies invest in R&D, but the gained results. This changing business environment has forced companies to develop processes to continuously produce new products or services, and companies have to create new innovative ways to perform their tasks better. A company's innovation can be a change in the routines (technique, organisation) of the company and/or a new product (a change

in the attributes of a good or a service). In both cases, an innovation is the combined result of technological and entrepreneurial knowledge (Karlsson & Johansson 2004, p.6).

In technology development, the value comes when a company creates something new and is the first in the market, or it can perform its everyday routines and processes more flexible. Being the first in markets creates value for a company through a greater market share, experience curve benefits, monopoly profits and increased customer satisfaction (Rothwell 1994, pp. 13).

## **6.5 Firm infrastructure**

Firm Infrastructure consists of a number of activities including general management, planning, finance accounting, legal, government affairs, and quality management. Infrastructure, unlike other support activities, usually supports the entire chain and not individual activities. (Porter 1985, p. 43) These activities give the guidelines for planning and implementing the primary activities and taking care of the fact that resources are in effective use.

Firm infrastructure can be a source of competitive advantage (Porter 1985, p. 43) and for example through management support systems it can reduce costs by saving time and quicken decisions. Especially in a branch of business where companies have to deal with legislation and instructions, it is important to have knowledge about the way they act and who is responsible of what. Suitable organizational structure, planned by management, is also important when discussing efficiency and responsibilities in a company.

## **7 APPLYING THE FRAMEWORK TO THE CASE COMPANY**

In the empirical part of the study, the aim is to answer the questions presented in the beginning of the thesis. Innovation's value chain and value activities are illustrated based on models presented in the theoretical part. In the empirical part, the theoretical framework concerning the activities is adapted to meet Innovation's expectations. Because Porter's value chain and the added-value chain could not alone describe Innovation's value activities, additional models were used to meet Innovation's needs better. However, in this study, the same logic as in Porter's value chain was used. In the value chain thinking, the process starts from inputs which are processed through the chain into outputs, for example to products or services. McPhee's (2006) added-value chain was utilized to capture stakeholder thinking and stakeholder management in the value chain. The added-value chain offers basis to understand the importance of the relationship between different stakeholders better.

The empirical part of the thesis is divided into three chapters, and it follows the same order than the theoretical part. In the first chapter, the stakeholders of Innovation and their stakes and rewards are clarified. In the second chapter, Innovation's value creation for customers is presented. In addition, the added value that Innovation creates to its customers is examined. The third chapter introduces Innovation's value chain and value activities. According to Innovation's needs, the value chain and value activities are introduced using real-life practices and description forms of several industries, for example investment banking, construction industry, and in the way how the company's all activities and tasks are illustrated before.

As it has been described shortly in chapter one, the data in the empirical part of this thesis is mostly based on interviews and a questionnaire. The

case company's employees were interviewed and the questionnaire was sent by e-mail to Innovation's key stakeholders (Appendix 2) and customers (Appendix 3). The case company's employees and the CEO were interviewed several times during the autumn of 2006 and at the beginning of the year 2007. Employees were project managers and selected to interviews based on their knowledge of asked activities and the CEO of the company was responsible for the definition of other activities. The interviews made with the employees and the CEO were informal and lasted from one to three hours. Informal interviews gave more possibilities to two-way interaction between parties than more structured and formal ones would have given. In addition to Porter's value chain, many possibilities to model company's activities were discussed and the discussions confirmed that value chain approach is suitable for the case company. As a conclusion of these interviews and everyday discussions, the case company's value chain and value activities were modelled. The modelling process is described more specific in chapter 7.3.

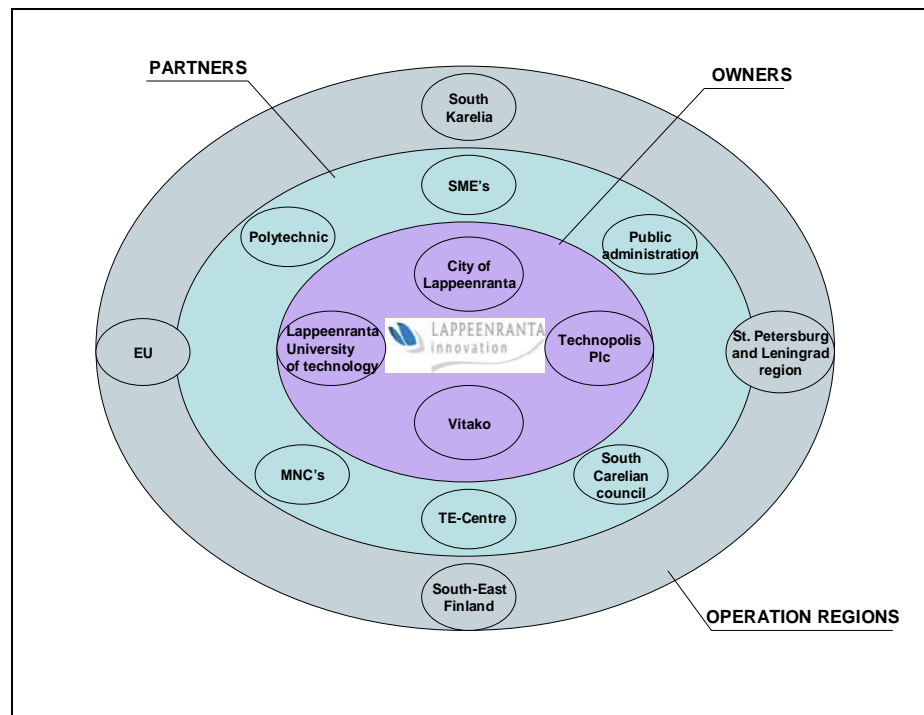
The questionnaire for the owners' representatives was sent to find out what the owners' expectations are in different roles. In addition, information about the owners was collected from interviews made by another researcher who is also preparing her thesis to Innovation. Another questionnaire was sent to fourteen of the customers' contact persons of project "eBusiness in network 2004-2006". The aim of this questionnaire was to clarify what the Innovation's concrete added value is for the customers and if it is directed to those two phases Innovation has defined. The customers answered this questionnaire with high intensity. This questionnaire gave valuable information about the customers' expectations and their received added value through Innovation's expert service.

The primary data sources were questionnaires and interviews. In addition to the questionnaires and interviews, Innovation's business plan and the strategic plan for the year 2006 of the city of Lappeenranta were utilized in

the empirical part. These secondary data sources can also be considered reliable but the data gathered from secondary sources was still examined more precisely. As Mintzberg (1994) claims, business plans and clarifications may sometimes give too positive a picture compared to the reality. However, these expectations presented in Innovation's business plan have been defined by the same persons interviewed and these targets should guide the activities of the company.

## **7.1 Stakeholders of Lappeenranta Innovation Ltd**

Stakeholders of the municipal business development company are different compared to those of traditional manufacturing companies. It can be seen in chapter 3.5. where Linnamaa and Sotarauta (2000) have told about stakeholders of municipal business development companies. These are for instance cities, entrepreneur's interest groups, universities, TE centre, and other financial institutions, and key companies that are important for the regions success. In figure 11, it can be seen that the stakeholders of Innovation are closer and more similar to the stakeholders that Linnamaa and Sotarauta have defined as the stakeholders of a municipal business development company than to traditional companies' stakeholders.



**Figure 11.** The stakeholders of Lappeenranta Innovation Ltd.

Innovation's stakeholders have been divided into three groups based on ownership relations, partners, and operation regions. (Business plan 2006) The key stakeholders are the company's owners and Lappeenranta University of Technology that will become an owner when legal aspects allow it (Later in this thesis LUT is included in the owners of Innovation). At the same time, they are the most important co-operative partners. (Bergman, 2007) With them and their resources and relationships, Innovation can develop its organization and its methods to respond to the expectations that have been set to the company.

In chapter 3.2., the stakeholders' inputs and expectations in a general level are discussed. The municipal business development company's stakeholders do not directly get financial rewards. However, investors rarely give something without expecting to get their investments back. Due to that, such companies as Innovation provide them something else, for example relationships that the companies can utilize in their business.

One of Innovation's aims is to create new business in the Lappeenranta region (Business plan 2006) and through this, the stakeholders may benefit in many ways. In addition, all owners have a representative or representatives in Innovation's board of directors (Business plan 2006) and that way they can influence the company's activities.

In appendix 4, Innovation's targets for years 2007-2010 concerning operative business sectors are presented. (Business plan, 2006) The sectors are not separated and the goals are related to every operational sector. There are several numeral goals for each year, and interviews sent to Innovation's board were utilized to support and specify the analysis. The stakeholders are committed to these targets but the aim was to clarify what their expectations in different roles are. These roles and expectations gathered from stakeholders are introduced in table 2.



**Table 2.** The stakeholders' expectations in different roles

Stakeholder \ Role	Financier	Resource	Customer	Partner
<b>The city of Lappeenranta</b>	To develop companies in the region of Lappeenranta. Innovation could carry on the business on its own in a few years.	Innovation can use the City's resources in its own projects.	To create and sustain a relationship with other business organizations. To make Lappeenranta an attractive area to carry on business in. To develop its own organization	
<b>Vitako</b>	Ideological reasons. Knowledge transfer to utilize companies business in the region of Lappeenranta and Vyborg	Innovation can utilize Vitako's knowledge in its projects.		
<b>Technopolis</b>		Innovation can utilize Technopolis' resources and knowledge in its projects.	To utilize and allocate their resources better.	Common projects Coordinated activity
<b>LUT</b>	Innovation could carry on the business on its own in a few years.	Innovation can use its knowledge in projects	To create relationships with other organizations.	To combine business and research. To coordinate funding. To find partners

*The City of Lappeenranta* is a financier, a resource, and a customer. It finances the Innovation's operations and gives it resources to execute its strategy. As a financier, the City of Lappeenranta expects that Innovation can help companies in the region of Lappeenranta to develop and grow their business. In addition, it expects that Innovation can carry on the business on its own in a few years. As a customer, the City of Lappeenranta expects that Innovation can create and sustain relationships with other organizations that can benefit the development of the City of Lappeenranta. Such organizations are located especially in Russia, St. Petersburg. The aim is to make the region of Lappeenranta an attractive area to carry on business in for Russian and Finnish business organizations. In addition, Lappeenranta City Holding company uses

Innovation as a tool to develop its own organization and to make it more effective.

*Vitako* is a financier, a resource, and a customer. (Business plan, 2006) It supports Innovation's activities financially and in some cases their knowledge is utilized in Innovation's projects. They are committed to Innovation's targets in the long run, and the main reason for *Vitako* is to ensure that the university's knowledge is transferred and utilized in companies' and other organizations' business in the region of Lappeenranta and Vyborg. They are not interested in getting financial rewards because *Vitako* is also a non-profit registered association. (Kivi-Koskinen, 2007) *Vitako* still has expectations as said above but the main reasons they are involved are ideological reasons (Kivi-Koskinen, 2007).

*Technopolis Kareltek* is a partner, a resource, and a customer. (Business plan, 2006) The aim of *Technopolis Kareltek* is the same as that of Innovation and the City of Lappeenranta, which is to develop existing business and help companies to grow and found new business in the region of Lappeenranta. (Hannelin, 2007) Innovation can utilize *Technopolis'* resources and knowledge in projects and in developing its own business models. As a partner, *Technopolis'* expectations are that they can do projects that concretely benefit the companies and develop the region of Lappeenranta together with Innovation. They do not expect to get financial rewards but to utilize and allocate their resources better together with Innovation. (Hannelin, 2007)

*LUT* is a partner, a financier, a resource, and a customer. It will become an owner when legal aspects allow it. (Lappeenranta Innovation business plan, 2006) The aim of *LUT* is to combine business and its research to respond customers' real needs and to create something concrete to support small enterprise companies. As a partner and a customer, *LUT* expects that Innovation could coordinate the funding and find partners to projects of *LUT* and release its resources for the main work, i.e. research

and education. (Kyläheiko, 2007) LUT also expects that it can utilize Innovation's contacts to support students' affiliation with companies, especially in the Russian business area (Kyläheiko, 2007).

As a conclusion, the stakeholders of Innovation are closer to a municipal business development company's stakeholders than a traditional company's stakeholders. The key stakeholders of Innovation are the City of Lappeenranta, Vitako, Technopolis Plc, and Lappeenranta University of Technology. Innovation gets financial support and expert knowledge from them. Stakeholders have different roles, and every role includes different expectations. Different roles are financier, resource, partner and in some cases even customer. As a financier they expect to get their investments back in the long run but are not expecting direct monetary rewards. As a resource and partner, they are involved in Innovation's activities and that way they can together develop business and ensure that their own ideas and targets are taken into account. As a customer, the key stakeholders can utilize Innovation's knowledge to develop their own activities and concentrate on their core operations.

The analysis shows that the key stakeholders are satisfied with Innovations operations and the main expectations have been met, and even surpassed. The beginning of Innovation has been successful. It has managed to get different actors at the same table and helped them to start the collaboration. Now, the next goal of Innovation is to direct all participants to work towards common interests.

## **7.2 Added value for customers**

In chapter 4.3 it was mentioned that a company can outsource its non-core activities. It means that a company can concentrate on its core business only, and for example outsource professionals to take care of the company's logistics or marketing. In small companies, it is not necessarily

possible to outsource activities because outsourcing may not be economically sensible. Many small companies still need expertise support to manage these tasks. As mentioned in chapter 2.1., Innovation's aim is not to take care of the customers' activities but to support them in development and in marketing and promotion activities. In table 3, the information gathered from customers is presented. The first row shows the expectations of the customers before the project. The second row describes what the customers have received from the projects. The third row shows what the sustainable concrete results are expected to be in the future.

**Table 3.** Customers' perceived value

Expectations	Support in developing business More contacts More tasks and job opportunities Financial support
Benefits	Important support and guidance in business development and in R&D Information about customer needs More tasks and job opportunities Help in establishing customer and partner relationships More contacts to other companies Experience Financial and education support
Sustainable results	More tasks and job opportunities also in the future Continuous communication between other companies Continuously developing R&D New customer and partner relationships have started to increase. Network has expanded Customer relationships have developed positively

Analyzing the customers' expectations, it seems that Innovation has succeeded in marketing its own goals and expertise to its customers quite well. The customers' expectations are linked to supporting the development of their business and also the development of R&D. In addition, the customers have made new contacts and the awareness about the customer company has increased. As a result of new contacts and increased awareness, Innovation has helped the customers to get more clients and get more information about the customers needs. The

table shows that the customers of Innovation have received support in planning and marketing activities which are discussed in chapter 2.1.

The added value customers received through Innovation's services are more complicated to find out. Still, both tangible and intangible benefits are captured. Intangible assets the customers have received are support and guidance in developing their business. In addition, cooperation has offered benefits through experience and increasing awareness and contacts between other companies. Tangible assets are financial support in the form of a voucher that can be utilized, for example, to educate the company's employees.

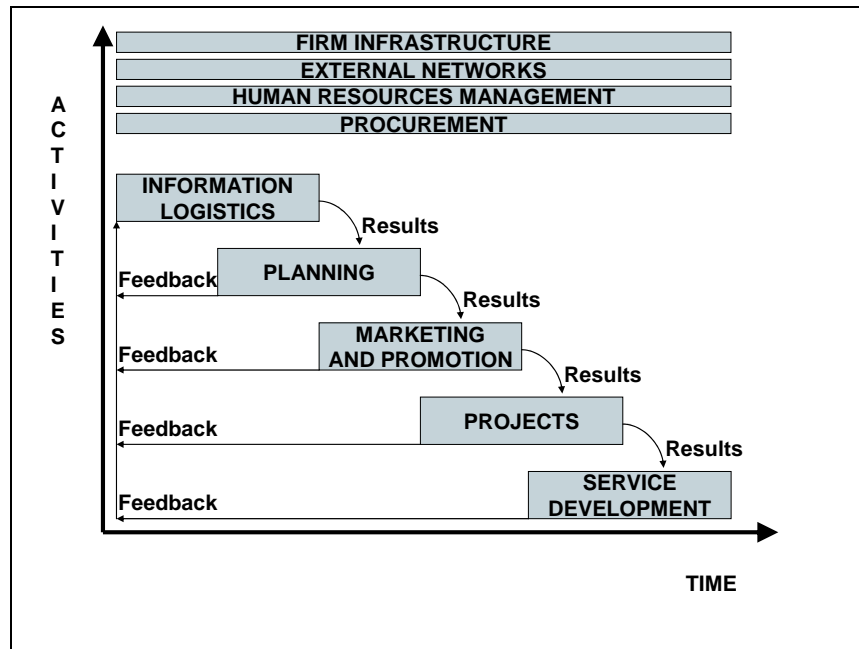
Some companies have understood better than others how this support and guidance can be utilized in their business. Some companies have come up with new ideas and realized in which direction and how the company's strategy and business should be developed. In addition, they have found new partners and customers, and have been able to utilize education and guidance in such a way that it benefits their customers as well. The sustainable benefits for companies are something that Innovation works for. Innovation helps companies in different ways but does not handle their operative processes or customers. Each company has to internalize the offered guidance and utilize it in their business on its own. Some companies have a better ability and willingness to do that than others.

Recently founded companies have considered Innovation's support and guidance welcome. With the help of support and guidance, companies have been able to keep their companies working and to develop activities continuously. The customers have been satisfied because their expectations have been met and even surpassed. The customers have received more than direct monetary value. Benefits linked to relationships and networks play an important role in defining the customers' perceived value.

Companies that have operated several years did not recognize the same value as recently founded companies. They got new customers related to the project but no sustainable benefits were identified. The difference might be due to many reasons. The questionnaire was made only for the project "eBusiness in network 2004-2006". Established companies' operational models have also been settled, and they do not have the need to change their models and market their experience whereas new companies need to plan and search customers. In addition, every company does not get benefits at the beginning and the value might form later in the future.

### **7.3 Innovation's value chain and value activities**

In this chapter, Innovation's value chain and value activities are described. Based on Porter's (1985) and McPhee's (2006) value chain approaches, Innovation's value chain consists of primary and support activities (illustrated in figure 12). *The primary activities* include information logistics, planning, marketing and promotion, projects, and service development (Appendix 5), whereas *support activities* include activities like procurement, human resources management, external networks, and firm infrastructure (Appendix 6). (Bergman, 2007; Mäki-Hokkonen, 2007) These are not exactly the same as the ones Porter and McPhee have defined but the special features of the business area and the company have been taken into account to form Innovation's activity.



**Figure 12.** The parallel model of Lappeenranta Innovation's value chain.

As already discussed, the value chain is used to describe various steps a product or service goes through from raw material to the final consumption. In this case, the raw materials are customer needs and other information gathered from business environment. These needs are refined through every activity in the chain, and the final consumption is a new service model. Support activities support the entire value chain and create conditions for executing the process. Especially in service industry, some activities are closely tied together (see chapter 4.4), and in Innovation's value chain also several activities are performed parallel with others. This can be explained in two ways. Figure 12 shows that the next phase of the value chain can begin before the previous phase ends. The feedback and information make continuous enhancing of the process possible and give employees information about proceeding. The other way, for example, is marketing and sales. It will happen before planning and even after the project phase. Firstly, Innovation has to market the expected results to financiers and then market and sell concrete results to

new customers. The managers have to be able to create and understand the linkages between value chain activities.

Next, each primary and support activity is introduced separately and in a way Innovation expected them to be described. First, the description and aim of every process are introduced, second the process and a short clarification of every step are described, and finally the expected results of the activity are presented. The descriptions are the result of many interviews and discussions with the CEO and the employees of Innovation. The modelling process started by defining and writing down the company's internal operations. When all the operations were clarified, the primary and support activities were defined from the basis of Porter's general value chain and McPhees' added-value chain. After that every phase was discussed and started to define more specifically. Activities were formed together with Innovation's employees utilizing the theories presented in the theoretical part. Activities were formed to meet Innovation's requirements. The researcher had the final responsibility to sum up the activities based on these interviews.

## **INFORMATION LOGISTICS**

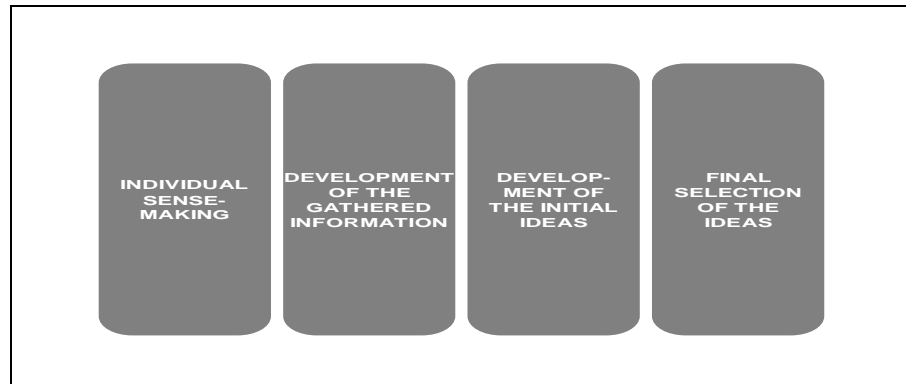
### **The aim of the process**

The aim of the process of *information logistics* (Appendix 7) is to recognize weak signals and to define which methods are appropriate for capturing weak signals. In addition, the best ideas captured and recognized are examined closer. One of Innovation's tasks is to create new business and develop existing ones of the customers and partners (Innovation business plan). These things will happen by exploring and noticing weak signals from the business environment and by developing the tacit knowledge to explicit knowledge.



### The phases of the process

In Lappeenranta Innovation, the information logistics process consists of four phases. These phases are *individual sense-making*, *developing the gathered information*, *developing the initial ideas*, and *selecting the best ideas* (figure 13).



**Figure 13.** Information logistics.

*Individual sense-making* means that every employee in the organization is aware of their task, which is to observe and sense weak signals from the business environment. This sensing has to be conscious. The employees cannot just wait that someone will tell them ideas. Individual sense-making helps employees in their task and makes observing continuous.

Even if searching information is active and continuous, suitable methods to *gather this information* from the environment are also needed. The methods used most often are interviews, focus groups, and observing the product in use. Developing the gathered information happens inside the company or together with its stakeholders. In table 4, the sources Innovation uses in gathering and developing the information about customer needs are presented.

**Table 4.** Sources of customer needs

<b>Customer</b>	Customers' direct suggestions Biddings Lead users Pilot- and end users
<b>Company's own documents</b>	Initiatives Sale cases
<b>Written materials</b>	Books and research reports Journals Data sources
<b>Other companies and organizations</b>	Agents Competitors Educational organizations Planning agencies Industrial organizations Research projects Research organizations
<b>Common events</b>	Exhibitions Seminars and conferences
<b>Other sources</b>	Other similar business branches Politics

The aim of examining the ideas is to *develop the initial ideas* to respond to customer needs. Development is needed because customers can rarely tell all their needs and expectations directly. Developing the initial ideas to meet the customer needs will happen inside the case company's organization or with its stakeholders. A tool such as interpretation table is used to help recognizing detailed needs. The result is articulated and analyzed information about the customer's real needs.

*In the selection phase*, Innovation (and its stakeholders) has to decide whether this gathered information presents a real customer need or not, and if it belongs to Innovation's business area. If all criteria are met, customer needs need to be examined more specifically.

### **Expected results of the process**

The result of this activity is a lot of information which is interpreted and specified to customer needs in Innovation's branch of business. From those needs the best one or best ones are selected and these ideas will be taken into more detailed discussion. Other information will be documented and can be utilized in later projects. In addition, interpreting

and examining the ideas open the employees' minds for continuous sense-making and idea searching.

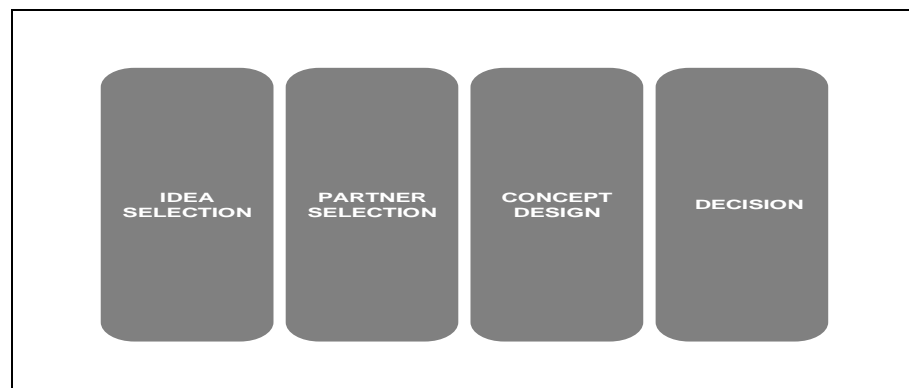
## **PLANNING: PROJECT IDEA AND PARTNER SELECTION**

### **The aim of the process**

In the *planning* phase (Appendix 8), the aim is to examine all selected customer needs more specifically and to find out if they meet the criteria of Innovation and its stakeholders. Also, the aim is to find suitable partners to be involved in the project and to find a key company or companies that will take more responsibility of executing the project. In addition, the aim is to design a concept for a preliminary project plan. Examining customer needs more specifically and designing a concept in the planning phase happen through the own resources.

### **The phases of the process**

In Lappeenranta Innovation, the planning process includes such processes as *idea selection*, *partner selection*, *concept design*, and *decision* (see figure 14). (Mäki-Hokkonen, 2007)



**Figure 14.** Planning.

*The idea selection* means that customer needs are examined more specifically and evaluated based on the criteria illustrated in table 5. The idea has to meet all those criteria before it will be developed on. These

ideas can be developed from market pull or Innovation push point of views. If the need has come from markets, companies involved in the project already exist. If Innovation invented the idea, it has to find and select the partners.

**Table 5.** The criteria for projects and companies involved.

<b>Criteria for projects</b>	Employing effect in the Lappeenranta region Support to the strategy of Lappeenranta City Holding Company Long-term investment
<b>Criteria for companies involved</b>	Motivated and ready to commit Able to invest in the project Local company Enough resources Complementary skills Good reputation

In the next phase, *suitable partners* that can execute the project are selected. Partner selection includes searching for reliable and motivated partners and getting them to do business together. Partners can introduce and specify their own needs in this phase. Partners also have to meet certain criteria. These criteria are also illustrated in table 5.

*In the concept design* phase all possible ideas are discussed one at a time, and the result is many models that solve the defined problem. As mentioned in chapter 5.9, the aim is not to form a perfect description about the project but to give guidelines of what is expected.

*In the decision phase*, when all concepts are considered, it is time to choose the concept that fulfils best the set criteria or needs or have the concept to be abandoned. The most important issue when selecting the concept is to fulfil customer needs. The chosen concept is the basis of a preliminary project plan. In addition, the need and the structure of funding (TEKES vs. EU) are defined in this phase.

### **Expected results of the process**

The result of the project and partner selection is a preliminary project plan where all participants involved in the project are selected. All the ideas are discussed to gain the best result that fulfils customer needs. In addition, one result of this phase is that key companies take more responsibility in the project and Innovation just coordinates the project. After this, finance application is made and the preliminary project plan is ready for more specific examination.

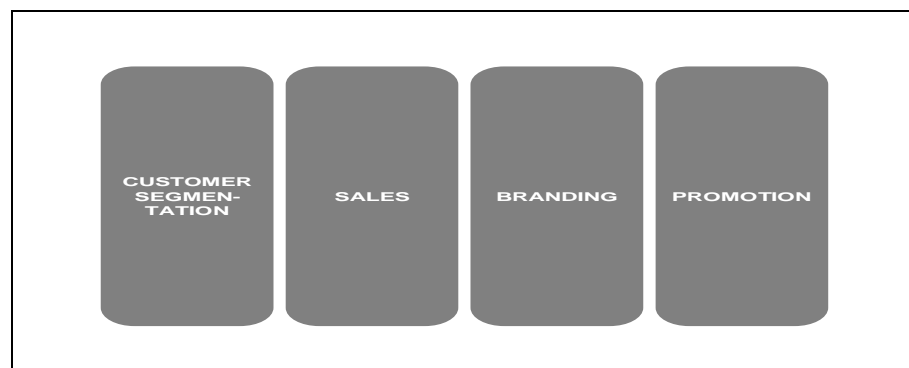
## **MARKETING AND PROMOTION**

### **The aim of the process**

The aim of *marketing and promotion* (Appendix 9) is to get customers and financiers interested in the services that Innovation produces. This will happen in two ways: by selling expectations to the existing partner companies and financiers, and selling the results of the project to new customers. In addition, the aim is to build an image that arouses trust and interest toward Innovation and makes it a wanted partner in selected business areas.

### **The phases of the process**

In Lappeenranta Innovation, the marketing and promotion activity includes phases such as *customer segmentation, sales for financiers and companies, branding, and promotion.* (figure 15)



**Figure 15.** Marketing and promotion.

In its strategy, Innovation has defined the segments they are involved in. These segments are forest, energy, welfare, and service sectors in Lappeenranta and South-East Finland regions. More specifically, Innovation concentrates on companies that want and are able to expand and develop their activities. These business areas are also the same ones on which Lappeenranta University of Technology concentrates and this benefits both institutions. The benefits of co-operation have been introduced earlier in this thesis.

*In the sales phase*, the aim is to sell well argued expectations to financiers and other companies. In addition, project participants, financiers and key companies are introduced to make the project interesting in the eyes of other companies. Innovation's employees get in touch with wanted partners, introduce the project to them, and try to make them interested in it.

*Company branding* is performed by means of involvement in projects that have visibility and a significant implication for the development of the region's business development. The gained results have to be announced publicly and it has to be ensured that companies and institutions are aware of the results. The aim is to build an image that arouses trust and attracts new companies and participants to involve in the projects. An attractive and trustworthy image is created in interaction between the personnel and the customer, so everyday contacts play a major role in creating that image.

Through *promotion*, Innovation strengthens its existing customerships and finds new customers. This happens by selling the gained results of the projects. Promotion consists of after sales activities. Innovation is in contact with its customers after it has sold them the service and tries to develop the service to meet the individual needs of the specific customer better. This will lead to increased customer loyalty.

### **Expected results of the process**

Innovation is a significant and reliable expert organization in the South-East region. Customers trust it and believe that with the help of Innovation it is possible to gain concrete results in developing their business. The ideal situation is that Innovation does not have to look for customers, but customers are looking for Innovation.

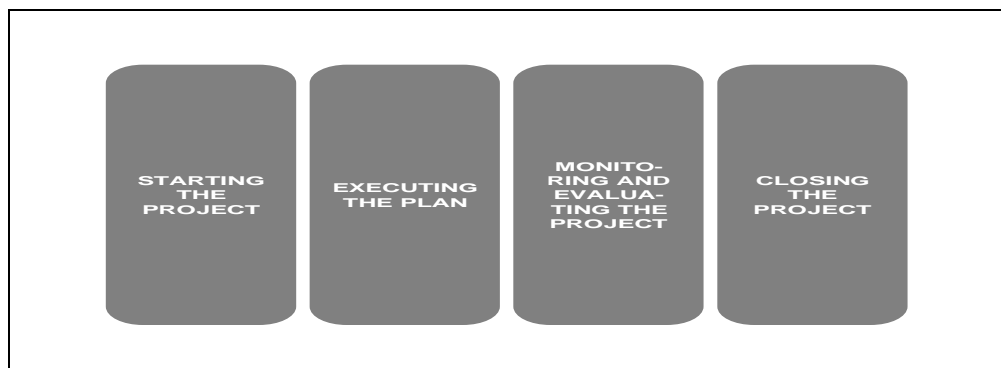
## **PROJECTS**

### **The aim of the process**

The aim of this activity is to set resources and frameworks for a project (Appendix 10). It defines the roles and tasks of every participant. In addition, the aim is to execute a project that offers a solution to a defined problem or need. The project has to offer something new to the customers and partners who are involved.

### **The phases of the process**

The steps of the project process are *starting the project*, *executing the plan*, *monitoring and evaluating the project*, and *closing the project*. (figure 16)



**Figure 16.** Project steps.

*In the starting phase of the project*, the final project plan is made and the needed resources are identified and acquired. A management group that makes the most important decisions of the project is chosen from within stakeholders of the project. It consists of key partners and the representatives of financiers. The roles of every participant (Innovation, companies, financiers) and their stakes and rewards are also defined. According to the project plan, the project manager tells other team members the main target and sub-targets that are set for the project. The project plan also gives every team member a precise description of how to achieve these targets and by whom.

*Executing the plan* starts with a kick-off seminar where every management group member is present and the final action plan for the project team is defined and accepted. After the kick-off seminar, every actor is aware of their tasks and the project can begin. The project follows the project plan, and every activity is done on schedule and within a given framework of the resources and set targets.

The project manager's task is *to monitor and report* to the management group about the progress. The management group evaluates if the targets are met and decides if changes are needed during the project. If there is a need for changes, the project manager makes the changes to the plan and acquires the needed resources to do these things.

At the *closing phase*, a project feedback meeting is arranged and the final report is made. Reports are also made to partners and financiers. If there have been problems during the project or targets have not been met, the reasons for that are examined. When the results of the project are clear and have been analyzed it is important to announce those results in public. The information gathered during the project is utilized to build new projects in order to fulfil noticed needs.



### **Expected results of the process**

The results are that customers' needs are satisfied and the project has developed the local business environment in an expected way. In addition, new projects may have begun based on the knowledge from the project. In addition, the project process is standardized and that increases the effectiveness of future projects.

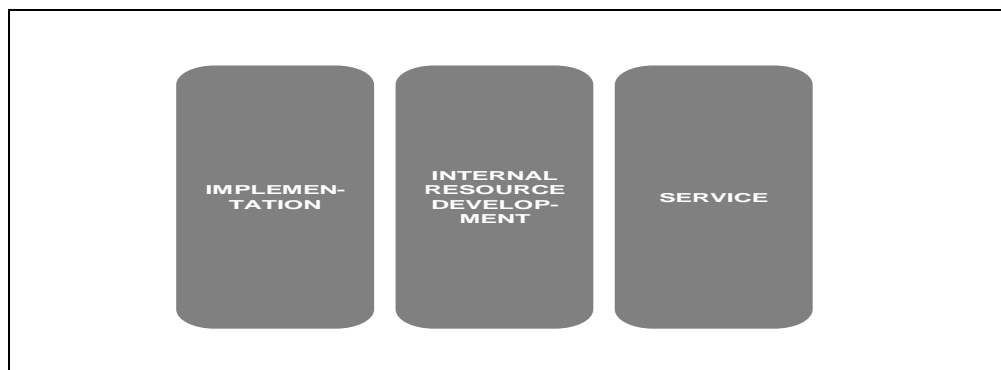
## **SERVICE DEVELOPMENT**

### **The aim of the process**

The aim of *service development* (Appendix 11) is to offer the customers all the necessary support to implement and use the offered service and to develop it to respond the customers' increasing needs. This will be done by Innovation itself or by the company that maintains the service. In addition, Innovation's internal resource development is seen as important.

### **The phases of the process**

In Lappeenranta Innovation, the service development process includes *implementation, internal resource development, and service.* (figure 17)



**Figure 17.** Service development.

*Implementation* and maintaining the service can be done in three ways. The first alternative is that Innovation takes care of all the things included in the service implementation, maintenance, training, and support. The

second option is that Innovation starts and implements the service and after that someone else takes care of the rest. So, Innovation's tasks are to coordinate and ensure that everything goes as planned. The third option is to start the project and outsource it as a whole.

*Internal resource development* makes it possible to execute the service. It means that Innovation's employees are aware of the demands that maintaining the service requires. Internal resource development depends on what the Innovation's role is in maintaining the service. If Innovation takes care of all things from implementation to development and support, it has to develop its own resources to respond to all these needs. The most extreme case is when Innovation only starts the project and outsource or sell it after that. In this case, internal resource development is not needed and Innovation's resources can be utilized in some other project.

When service is being used and maintained it has to be developed all the time to respond the customers' increasing demands. Innovation gets information about its service through its own ideas, questionnaires, and from customers. If there is something to improve, it will be solved together with experts and Innovation's employees.

### **Expected results of the process**

Services that Innovation develops are both project and on-going services. Project services are one-time by nature and on-going services are non-stop by nature. The project services end at a certain time and the results are knowledge about customers and maybe new ideas for future projects. On-going services have to be maintained and developed continuously. On-going services also give information about customers, and new projects may be possible. In addition, the aim is to serve a customer so well that they become so dependent of the product or service that changing the service provider is not sensible. Eventually, customers are captured in a lock-in situation.

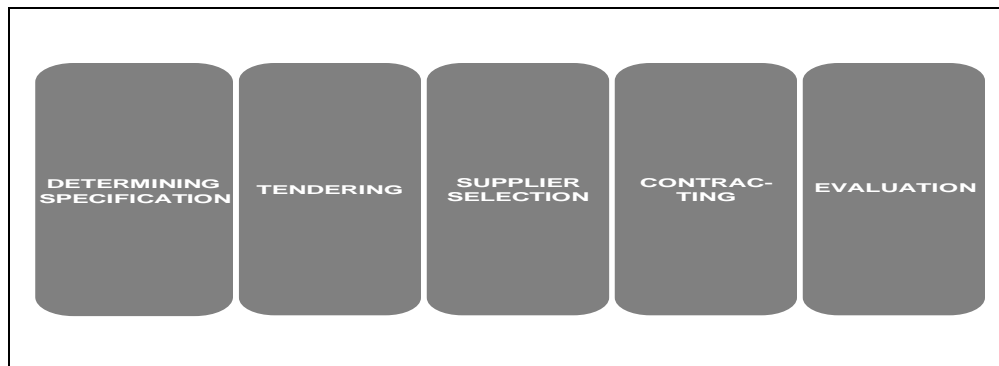
## PROCUREMENT

### The aim of the process

The aim of *procurement* (Appendix 12) is to purchase products or services that serve Innovation's needs and demands. All procurement are to be made in the framework of given resources, complying with the rules of the public administrator. In addition, the aim is to support local companies by buying the products or services from them. (See more in public administrator rules about procurement procedure)

### The phases of the process

Procurement steps in Lappeenranta Innovation are *determining specification, tendering, supplier selection, contracting, and supplier evaluation*. (figure 18)



**Figure 18.** Procurement.

First, the *specifications* for a required product or service have to be determined. This is done by Innovation itself or together with experts. These determined specifications are quality, delivery time, and the way of delivery, maintenance, and price.

*In tendering*, the specifications are sent to possible suppliers. The invitation of bids and the criteria for it need to be specific. Bids have to be asked from at least three suppliers. Then, the procurement procedure has to be chosen. These options are open procedure, restricted procedure,

and negotiation procedure. The procedure is open when every supplier can make an offer. Restricted procedure is used when bids are asked from a few chosen suppliers. Negotiation procedure means that the procurement department contacts chosen companies and negotiates the conditions with one or more of them.

*Supplier or suppliers are selected* based on their offers. All offers will be dealt with by Innovation's employees or with an expert and the selected supplier has to be the best one when comprehensive criteria are looked at. The decision is announced to other companies. The information about companies is also gone over to ensure that they are able to deliver the product or service.

When the supplier or suppliers have been selected *the contract* is actually ready and the delivery can begin. Only some details can be discussed in this phase. In addition, the way of payment and penalty clauses are defined.

*The evaluating process* starts before delivering and continues also after implementation. Company has to ensure that all required conditions and details are completed. While evaluating the supplier, there are several things that have to be taken into account. These are for example the suppliers' ability to do the things they have promised, the fact if the delivery is on time, and the quality of the service or product. Evaluation is important because the supplier's abilities affect future supplier selection.

### **Expected results of the process**

The result of procurement is a purchased product or service that fulfils Innovation's requirements. In addition, documents about tendering and information about suppliers and their abilities are documented. This information can be utilized in future purchases.

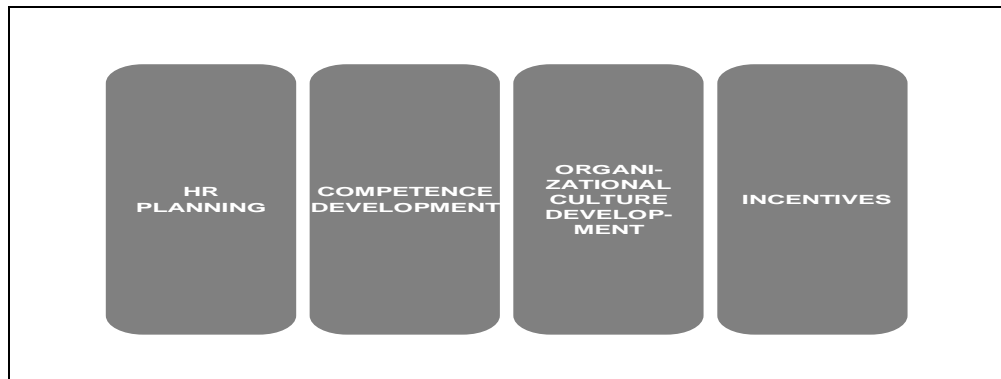
## HUMAN RESOURCES MANAGEMENT

### The aim of the process

The aim of human *resources management* (Appendix 13) is to create a personnel policy that ensures the company's competence and develops its organizational culture. It includes creating and sustaining an active and motivated working environment and carefully chosen employees. In addition, its aim is to manage, develop, and utilize human resources in individual, group, and organizational level. Human resources activities have to support the company's business strategy.

### The phases of the process

Human resources management in Lappeenranta Innovation consists of the following elements; *human resources planning, competence development, organizational culture development, and incentives.* (figure 19)



**Figure 19.** Human resource management

*Human resources planning* means creating a human resource strategy. In the strategy, all necessary information that is needed to support and implement the business strategy is mentioned. It consists of the needed resources and the employees' tasks. Every employee has a defined task, and if recruitment is necessary, it is made to support the strategy. Human resources planning defines the need for recruiting and the methods of the

recruitment process. The CEO of the company or the project manager have the authority to recruit new employees.

*Competence development* means that the employees' individual skills form the company's knowledge, and this knowledge is utilized to gain set targets. The company's operational models and guidelines are clear and they strengthen and support the innovative activity in the company. The employees have to be offered opportunities to develop their skills in the continuously changing world. Human resources management defines the methods to develop the organization's knowledge through the individual employee.

*The organizational culture* is formed by the employees. The managers have to support the development of learning and an innovative organizational culture. This is be done by encouraging the employees to take conscious risks and the willingness to discuss their failures. Communication, discussion, and sharing the best operational models with other employees are in a key position when creating and developing the organizational culture. Knowledge sharing helps the organization to form routines and to develop its activities.

*Incentives* can be both economical and non-economical. Incentives are given when tasks are done well and the end result is profitable. Economical incentives can come in the form of a rise in salary or an incentive bonus. Non-economical incentives are career development, individual learning, and the status in organization. A competitive salary and incentives can attract potential employees to choose the company and keep the existing ones in the organization.

### **Expected results of the process**

The expected results are that Innovation has a human resources plan that guides the personnel policy. In a few years, the organization culture will be strong and motivate employees to creative and innovative thinking. In

addition, Innovation is an interesting company to work for. It offers its employees competitive incentives and challenging tasks. The employees are committed and at the same time motivated. This ensures the best end results when doing business.

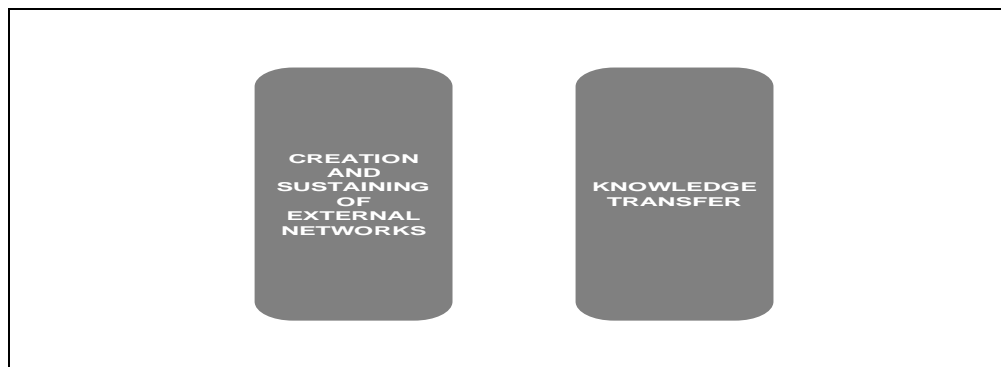
## **EXTERNAL NETWORKS**

### **The aim of the process**

The aim is to create and sustain relationships to *external networks* (Appendix 14), such as TE Centre, South Karelia, and St. Petersburg regions, EU, and regulator institutes. Relationships between these organizations ensure that the newest knowledge related to directives and laws are available for Innovation. Creating and sustaining relationships with other institutions guarantee that Innovation is a forerunner when planning and coordinating new business models in South-East Finland.

### **The phases of the process**

The elements in this activity are *creation and sustaining external networks* and *knowledge transfer*. (figure 20)



**Figure 20.** External networks.

*Creating and sustaining external networks* is done with the help of Innovation's contacts. Contacts can be created by Innovation's board, through occasions arranged by the university, by Innovation itself, or by some other institution. In addition, the employees can and should create

their own contacts to important participants and be in contact with them regularly. This helps Innovation to improve its own activities to meet the challenges the regional development policy sets.

*Knowledge transfer* means that the newest knowledge about directives and laws are available for Innovation. In addition, Innovation is aware of planned projects that benefit the local business environment. The knowledge is transferred between different organizations that have a significant influence when developing South-East Finland region, such as TE Centre, the University, and local key companies. The knowledge is transferred through everyday action and discussion between Innovation's employees and network participants. Knowledge transfer is also made through seminars, reports, interviews etc.

#### **Expected results of the process**

The expected results of external networks are good relationships with the stakeholders and a network that looks after the interests of other participants. This network shares information to its actors immediately when new things come insight. Innovation benefits from the network by getting information about the projects that are its core business.

### **FIRM INFRASTRUCTURE**

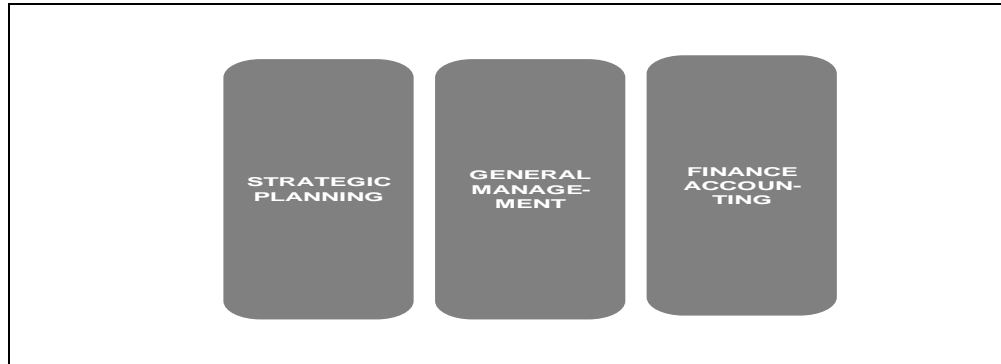
#### **The aim of the process**

The aim of *firm infrastructure* (Appendix 15) is to plan, support, and control Innovation's different activities and to ensure that the needed resources are available. In addition, the effective use and development of resources is important. These things are on the responsibility of the board and the CEO of the company. Administering financing and other common tasks are also a part of the firm infrastructure. Firm infrastructure guides and enables the activities of the company.



### The phases of the process

The phases of firm infrastructure are *strategic planning*, *general management*, and *finance accounting*. (figure 21)



**Figure 21.** Firm infrastructure.

*Strategic planning* ensures that the company has a clear target and vision that are supported by the strategy. In addition, the aim of strategic planning is that the organization's strategy to improve the performance is clearly defined and understood. The strategy is created by the board and the CEO of the company. In addition, Innovation's strategy has to support the strategy of Lappeenranta City Holding Company's strategy. The strategy has to be implemented. Continuous development is necessary in order to respond to the changing business environment. These are also the tasks of the CEO.

*The role of general management* is to make decisions of how to acquire and allocate resources. The CEO is in charge of the total management of the company and he reports to the board. The board of the company sets the frameworks for operations and monitors the managers. The CEO's role is to ensure that resources are in use and employees are executing the created strategy or plan. The CEO also makes decisions about the economy and deployment of other resources and capabilities. In addition, there are project managers who have the responsibility of planning and

executing the projects. The project manager's duty is to ensure the success of a project by minimizing the risks throughout the project.

*Finance accounting* consists of all everyday activities relating to money, such as sending and paying the bills and making the finance applications for projects. Finance includes the company finance and the project finance. In addition, the person who is in charge of finance accounting divides and counts the salaries, that consists of several projects, for employees. The main task of finance accounting is to follow the company's economic balance and ensure that financial resources are in reasonable use.

### **Expected results of the process**

The result of firm infrastructure activity is an effective and well managed organization where resources are in effective use. It ensures that Innovation has clear guidelines of where to go and how. In addition, the company is profitable and financial resources are being utilized effectively.

As it has been shown in this chapter, the company's activities are mostly in line with the theory presented in the previous chapters. That is a result of trying to define the ideal processes for the case company and not forgetting any important things. Another reason is that some phases are determined by public organization's instructions, such as purchasing orders, and legal aspects. It depends on the situation which phases and to what degree every phase has to be examined. Some cases need more detailed planning than others and then every step is needed. It depends on the targets and the nature of the service or project which phases are needed.

## **8 SUMMARY AND CONCLUSIONS**

In this chapter, a short summary of the main features of the thesis is introduced. In addition, the results and conclusions of the study and suggestions for future research are described.

There are several approaches to model a company's activities, and the company has to find the most appropriate one for its own purposes. Every model has its pros and cons, and the company has to know what it wants from process modelling. Even if modelling takes time and is demanding, it has many advantages. It helps the company to coordinate and control its activities and ensures that the future is taken into consideration. In addition, modelling helps to develop the company's operations and to notice weaknesses.

By using the value chain, companies are able to internalize how the value they offer for customers is created inside the company. Companies are also more and more related with other companies and with other stakeholders. Recognizing the stakeholders and their needs and the value the company creates is important for future success. The changing business environment has forced companies to co-create value together with other companies, and finding the right networks to do that is important.

It seems that the value chain is still a good way of describing a company's internal activities. It considers the main issues of what a company does internally and the value creation inside the company. With this knowledge companies are able to revise their value chains to respond to challenges of today.

## 8.1 Results and conclusions of the study

The main goal of this thesis, *“the aim is to find out and describe a non-profit, public organization’s value activities through the value chain analysis”*, defined the direction to the whole research and helped in concentrating on the correct issues while answering the research problem. The answers to all research questions were also found, and these are introduced next.

The main objective of this thesis was *“How to describe a non-profit, public organization’s value activities through the value chain analysis?”* Three sub-questions were introduced to help to meet the main objective. The first sub-question was *“Are Lappeenranta Innovation’s key stakeholder’ closer to a municipal business development company’s stakeholders or a traditional company’s stakeholders and what are their expectations in different roles?”* After the research, it can be seen that the key stakeholders of Innovation are much closer to the stakeholders of a municipal business development company than a traditional company’s stakeholders. First, it was examined who Innovation’s key stakeholders are, and then they were compared to a municipal business development company’s stakeholders. Key stakeholders are the City of Lappeenranta, Lappeenranta University of technology, Technopolis, and Vitako. There were several stakeholders municipal business development companies usually have, such as the city and the university. In addition, Innovation’s other stakeholders (e.g. public administrations, the South Karelian council) are also closer to a municipal business development company’s stakeholders than to a traditional company’s stakeholders.

It was more difficult to find out the key stakeholders expectations in different roles. No one, for instance, said that they are expecting dividends but in the clarification of the “Strategic plan 2006 of the city of Lappeenranta” it is said that Innovation should be able to share dividends.

It is clear that financiers want to get their investments back but no one really expected to get direct monetary rewards. The financiers' expectation was that in a few years Innovation could carry on the business on its own. As customers and partners, the key stakeholders expected that Innovation to coordinate projects and look for new partners for them. This helps the stakeholders to allocate and utilize their resources better. Utilizing and allocating resources better was the main point they really expected to get from co-operation with Innovation. In addition, as a customer they expected that Innovation can create relationships across the borders and in that way get new business contacts in Russia and especially in St. Petersburg.

The second sub-question was "*Which are the customers' value activities where Lappeenranta Innovation adds value?*" To answer to this and the third sub-question, questionnaires were sent to Innovation's customers. The results of the questionnaires show that Innovation has succeeded in to marketing their own expertise and goals successfully. Innovation provide added value to customers in the development and in marketing & promotion phases. In the planning phase, customers have received support and guidance in developing their business models and R&D.

The awareness about their business environment has increased and customers have made new contacts with the help of Innovation. So far, Innovation has managed to help companies in chosen activities and the results have been encouraging. Interviews made with the stakeholders revealed that in the future the challenge is to keep Innovation's own strengths in mind and to develop the activity through these strengths.

The third sub-question was "*What is the added value that Lappeenranta Innovation offers to customers?*" The customers have obtained both intangible and tangible benefits. The most important ones are the intangible benefits because Innovation's aim is to help companies to develop and grow. Value is created through guidance and support in

developing the customers' business. The rate of customer's perceived value depends on how they have been able to utilize the offered opportunity.

Based on the answers of sub-questions the answer to the main object was formed. The value activities were discussed with the CEO and employees of Innovation. Then activities were divided in primary and support activities as in Porter's value chain. The primary activities are *information logistics, planning, marketing and sales, projects, and service development*. The support activities are *procurement, human resources management, external networks, and firm infrastructure*.

Every value activity is described in detail in chapter 7.3, and those are formed to meet Innovation's expectations. Describing these activities is recommended to utilize existing models and revise these to meet own specific features. One has to remember that every company has different value activities and it is impossible to copy value chains and value chain activities direct from another company. In this thesis, as already mentioned, the activities have been formed on the basis of discussions with the case company's CEO and employees.

To describe the company's operations models in general depends on how the company wants them to be described or what it is used to. There are several ways to model a company's activities and one has to decide if value chain is the best one for their purpose. In general, there are several things that have to be taken into account while defining a company's operations model. They are, for example, the company's branch of business, targets, and resources. In this case, they were clear and the aim of this thesis was to define and model the case company's activities. Other models are not mentioned because of case company's direct assignment. The assignment was to describe a non-profit, public organization's value activities through the value chain analysis. As shown, there is no single way to describe a company's activities but in this thesis

one of them is presented. Operations models may be different depending on the viewpoint of the company itself, independent of the business branch. Even companies working in the same business branch might have different value chains. This is because the value chain is a reflection of several issues (4.3.) and no company has the same values and the same kind of history. In addition, the value chain assists companies to evaluate and select their activities and methods in order to create the most value for the company itself and to distinguish themselves from others.

## **8.2 Future research objects**

Due to the fact that the branch of business of the case company is new and could not be examined in detail, there seems to be a major question to be solved: how to commercialize the results of the projects? Everything can be commercialized. The question is how to commercialize these services and the project results developed by the intermediary organization. This would lead to the situation that these intermediary organizations could fund their activity by selling or maintaining these services.

To understand better the case company's business, there are questions need to be answered. One thing that could clarify the business of the case company is to define more detailed its role and targets following the approach of open innovation paradigm.

## REFERENCES

Ahlsted, L. and Jahnukainen, I. (1971), Yritysorganisaatio yhteistoiminnan ohjausjärjestelmänä. 5. edition. Helsinki: Weilin + Göös Oy.

Bogdan, R. C. and Biklen S. K. (1982), Qualitative research for education: An introduction to theory and methods, 2. edition. Boston: Allyn ja Bacon. In Hirsjärvi, S.; Remes, P. ja Sajavaara, P. (toimittanut), Tutki ja kirjoita (2002). Vantaa: Tummavuoren kirjapaino Oy.

Borg, W. R ja Gall, M. D. (1989), Educational research. An introduction. 5. edition. Oxford: Oxford University Press. In Hirsjärvi, S.; Remes, P. ja Sajavaara, P. (edited) Tutki ja kirjoita (2002). Vantaa: Tummavuoren kirjapaino Oy.

Carrol A.B. (1989), Business & Society. Cincinnati, South-Western, in Näsi, Juha (1995), Understanding stakeholder thinking. Helsinki: LSR-Publications.

Cartwright, S. D. and Oliver, R. W. (2000) Untangling the Value Web. *The Journal of Business Strategy*. Vol. 21 No. 1, pp. 22-27.

Chesbrough, H. (2003), The Logic of Open Innovation: Managing Intellectual Property. *California Management Review*. Vol. 45 No. 3, pp. 33-58.

Ellram, L. M. (1990), The Supplier Selection Decision in Strategic Partnerships. *International Journal of Purchasing and Materials Management*. Vol. 26 No. 4, pp.8-14.

Eskola, J. and Suoranta, J. (1998), Johdatus laadulliseen tutkimukseen. Tampere: Vastapaino.



Eustace, C. (2004), A new perspective on the knowledge value chain. *Journal of Intellectual Capital*, Vol. 4 No. 4, pp. 588-596.

Forsström, B. (2005), Value Co-Creation in Industrial Buyer-Seller Partnership: Creating and Exploiting Interdependencies. Dissertation, Åbo Akademis Förlag – Åbo Akademi University press. Turku, Finland.

Freeman, R. E. and Reed, D. L. (1983), Stockholders and stakeholders: A new perspective on corporate governance. *California Management review*, Vol. XXV No. 3, pp. 88-106.

Freeman, R.E. (1984), Strategic management: A stakeholder Approach. Boston : Pitman

Freeman, R. E. and Liedtka, J. (1997), Stakeholder capitalism and the value chain. *European Management Journal*, Vol. 15 No. 3, pp. 286-296.

Freeman, R.E. () Stakeholder thinking: The state of the art, in Näsi, J. (1995), Understanding stakeholder thinking. Helsinki: LSR-Publications.

Goffin, K. and New, C. (2001). Customer support and new product development: An exploratory study. *International Journal of Operations & Production Management*, Vol. 21 No. 3, pp. 275-301.

Grönroos, C. (2000). Service Management and Marketing: A customer relationship management approach. Chichester: Wiley

Hallikas, J., Karvonen, I., Pulkkinen, U., Virolainen, V-M., and Tuominen, M. (2004), Risk management processes in supplier networks. *International Journal of Production Economics*, Vol. 90 No. 1, pp. 47-58.

Hines, P. (1993). Integrated materials management: the value chain redefined. *International Journal of logistics management*, Vol 4, No. 1, pp. 13-22.

Hirsjärvi, Remes & Sajavaara (2000). Tutki ja kirjoita. Helsinki: Tammi

Hughes, J., Mark, R. and Michels, B. (1998). Transform your Supply Chain: Releasing Value in Business. London: International Thomson Business Press, 1998.

Karlsson, C. and Johansson, B. (2004). Towards a Dynamic Theory for the Spatial Knowledge Economy. CESIS. Electronic Working Paper Series. <http://www.infra.kth.se/cesis/documents/WP20.pdf>. 27.3.2007.

Karrus, K.E. (2001). Logistiikka. Helsinki: WSOY, 2001.

Keinonen, T. and Jääskö, V. (2004). Tuotekonseptointi. Helsinki: Teknoliateollisuus, 2004.

Ketchen Jr. D. J. and Hult G. T. M. (2006). Bridging organization theory and supply chain management: The case of best value supply chains. *Journal of Operations Management*.

Kotler, P. and Keller, K.L. (2006), Marketing Management twelfth edition. New Jersey, Upper Saddle River.

Kotler, P. and Keller, K.L. (2000), Marketing Management tenth edition. New Jersey, Upper Saddle River.

Kärkkäinen, H., Piippo, P., Puumalainen, K. and Tuominen, M. (2001). Assesment of hidden and future customer needs in Finnish business-to-business companies. *R&D Management*, Vol. 31 No. 4, pp. 391-407.

Lappeenranta Innovation Ltd, (2006) Business Plan.

Lewis, J.P. (1997), *Fundamentals of project management*. New York: Amacom, 1997.

Linnamaa, R. and Sotarauta, M. (2000). *Verkostojen utopia ja arki. Alueellisen kehittämisen tutkimusyksikkö. Sente-publications 7/2000*. Tampere: Cityoffset Oy, 2000.

Lotila, Pia (2004), *Communicating Corporate Social Responsibility: Reporting Practice in Retailing*. Publications of the Turku School of Economics and Business Administration. Series Discussion and Working Papers 6:2004.

Lysons, K. and Farrington, B. (2006). *Purchasing and Supply Chain Management*. New York: Financial Times/Prentice Hall.

Maltz, A.B. and Ellram, L.M. (2000). Selling Inbound Logistics Services: Understanding the buyer's perspective. *Journal of Business logistics*, Vol. 21 No. 2, pp. 69-88.

McPhee, W. and Wheeler, D. (2006), Making the case for the added-value chain. *Strategy & Leadership*, Vol. 34 No. 4, pp. 39-46.

MET 2005, *Tulevaisuuden voittajat, Liiketoiminnan ja teknologian linjaus 2010*, Metalliteollisuuden Keskusliitto.

Miller, W.L. and Morris, L. (1999), *4<sup>th</sup> generation R&D – Managing Knowledge, Technology, and Innovation*, 2<sup>nd</sup> ed, John Wiley & Sons, Inc., New York, USA.

Mintzberg, H. (1994a), *The Rise and Fall of Strategic Planning*, Prentice Hall, New York, USA.

Normann, R. and Ramirez, R. (1993), Designing Interactive Strategy: From Value Chain to Value Constellation. *Harvard Business review*. July-August. pp. 65-77.

Näsi, J. (1995), Understanding stakeholder thinking. Helsinki: LSR-Publications.

Pandya, A. and Nikhilesh, D. (2005), Conceptualizing B2C Businesses as a New Category of Services. *Journal of Electronic Commerce in organizations*, Vol. 3 No. 1, pp. 1-12.

Pelin, R. (2002), Projektihalinnan käsikirja, 3. edition. Helsinki:Projektijohtaminen Oy.

Pitta, D. A., Franzak, F.J., and Little M.W. (2004), Maintaining positive returns in the value and supply chain: applying tomorrow's marketing skills. *The Journal of Consumer Marketing*, Vol. 21 No. 7, pp. 510-519.

Porter, M. E. (1985), Competitive advantage, Creating and Sustaining Superior Performance. New York, The Free Press.

Prahalad, C. K. and Ramaswamy, V. (2004), Co-creating unique value with customers. *Strategy and Leadership*, Vol. 32 No. 3, pp. 4-9.

Rothwell, R. (1994), Towards the Fifth-generation Innovation Process. *International Marketing Review*, Vol. 11 Iss. 1, pp. 7-31.

Savage G.T., Nix T.W., Whitehead C.J., and Blair J.D. (1991), Strategies for assessing and managing organizational stakeholders. *Academy of Management Executive*, Vol. 5 No. 2, pp. 61-75.

Sotarauta, M., Kosonen, J.K., and Viljamaa, K. (2007), Aluekehittäminen generatiivisena johtajuutena: 2000-luvun aluekehittäjän työnkuvaa ja kompetensseja etsimässä. Alueellisen kehittämisen tutkimusyksikkö. Sente-publications 23/2007. Tampere: Cityoffset Oy, 2007.

Sotarauta, M. and Linnamaa, R. (1997), Kaupunkiseudun elinkeinopolitiikka ja prosessien laatu. Tampere: Cityoffset Oy, 1997.

Sotarauta, M. and Linnamaa, R. (1998), Research briefing. Crossing the many borders: Finnish Local Development Policies Facing New Challenges. *European Planning Studies*, Vol. 6 No. 2, pp. 227-234.

Strömmer, R. (1999), Henkilöstöjohtaminen. Helsinki: Edita.

Stähle, P. and Sotarauta, M. (2002), Regional innovation activities in Finland-Current status, significance and developmental challenges. Esiselvitys; Tulevaisuusvaliokunta. Teknologian arviointeja 13. Eduskunnan kanslian julkaisu 8/2002.

Uлага, W (2001), Customer Value in Business Markets - An Agenda for Inquiry, Industrial. *Marketing Management* 30, pp 315-319. In Forsström, B. (2005), Value Co-Creation in Industrial Buyer-Seller Partnership: Creating and Exploiting Interdependencies. Dissertation, Åbo Akademi Förlag – Åbo Akademi University press. Turku, Finland.

Ulrich, K. and Eppinger, S. (1995) Product development and design. New York: McGraw-Hill, Inc.

Varis, J. (2001) Kumppanuudella kasvuun (2001), Lappeenranta: Telecom Business Research Center, Lappeenranta University of Technology.

von Hippel, E. (1988), The sources of innovation. New York: Oxford University Press.

Weele, Arjan J. van (2002), *Purchasing and supply chain management: analysis, planning and practise*. London: Thomson Learning, 2002.

Wheeler, D., Colbert, B., and Wheeler, R.E. (2003), Focusing on value: Reconciling corporate social responsibility, sustainability and a stakeholder approach in a network world. *Journal of General Management*, Vol. 28 No. 3, Spring 2003, pp. 1-28.

## **INTERVIEWS**

Weekly meetings:

Lappeenranta Innovation Ltd 15.1.2007

Lappeenranta Innovation Ltd 18.1.2007

CEO Jukka Bergman

Project manager Markku Mäki-Hokkonen

Project manager Marko Nenonen

Project manager Kari Korpela

## **INTERNET**

Council of Supply Chain Management Professionals [2.2.2007]

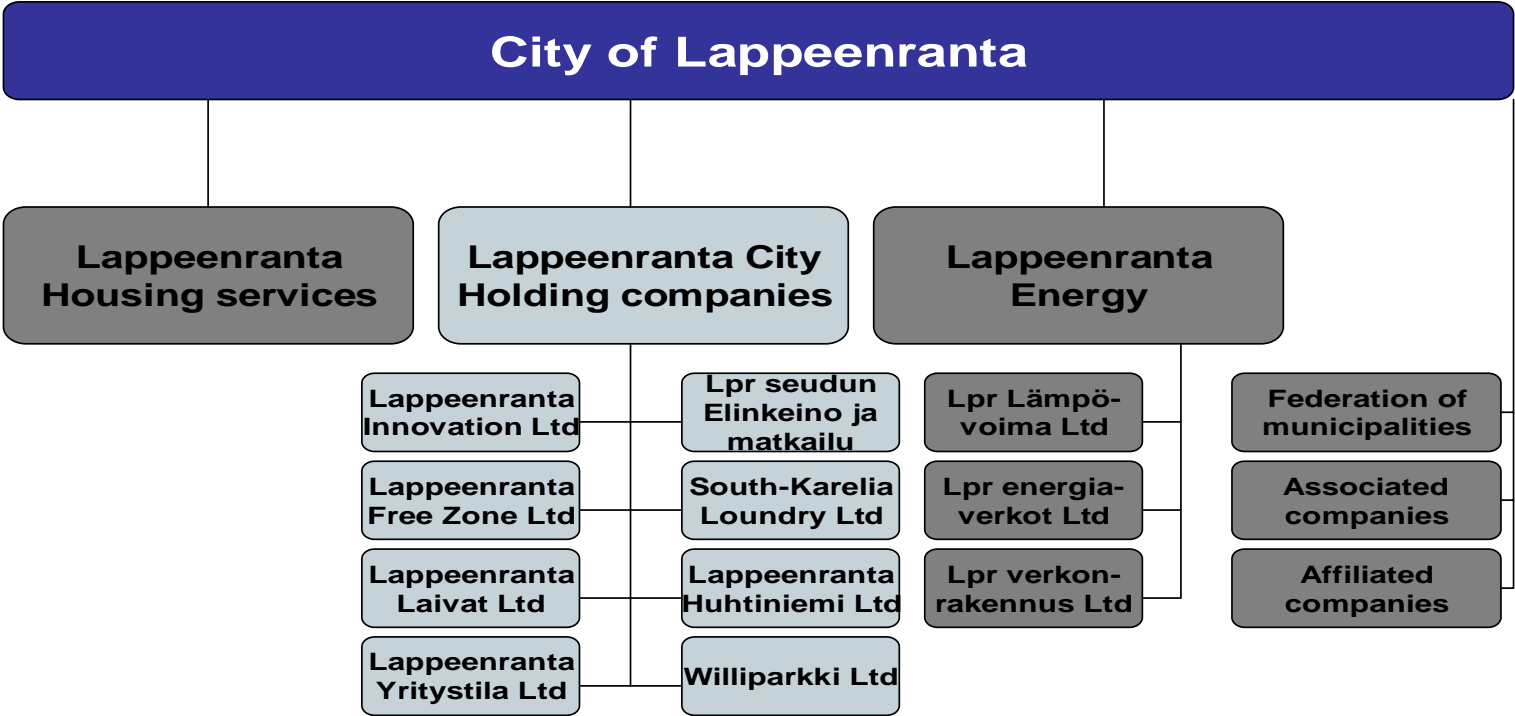
available: [www.cscmp.org](http://www.cscmp.org)

The American Marketing Association [14.2.2007]

available: [www.marketingpower.com](http://www.marketingpower.com)

Appendix 1. Lappeenranta concern 2007

# Lappeenranta concern 2007



## Appendix 2. Goals of activity 2007-2010

### GOALS OF ACTIVITY 2007 - 2010

	2007	2008	2009	2010
<b>Corporate projects</b> -single company problem solving (case /year)	10	20	30	40
<b>Corporate-University-knowledge transfer</b> -R&D- and other similar projects/year -EU-program	5 1	10 2	10 3	10 4
<b>New direct vacants to the region of Lappeenranta</b> -for new and existing companies	10	35	45	60
<b>New operations models in companies and in public administration</b> -developed/started process/tool /year -Implementation of "Matching-system" to other cities and regions.	5	10	10 1	10 2
<b>Recognized status in innovation and in development activity will be achieved by year 2010</b>				



### **Appendix 3. Questionnaire for key stakeholders**

**Name**

**Company**

**What are your expectations towards the activity of Lappeenranta Innovation Ltd?**

**What benefits your company**

**a) expect to gain**

**b) have gained this far with the co-operation with the Lappeenranta Innovation Ltd?**

**What are the stakes your company gives to Lappeenranta Innovation Ltd?**

#### **Appendix 4. Questionnaire for customers**

**Name**

**Company**

**What benefits your company**

**c) expected to gain**

**d) have gained this far the co-operation with the Lappeenranta Innovation Ltd?**

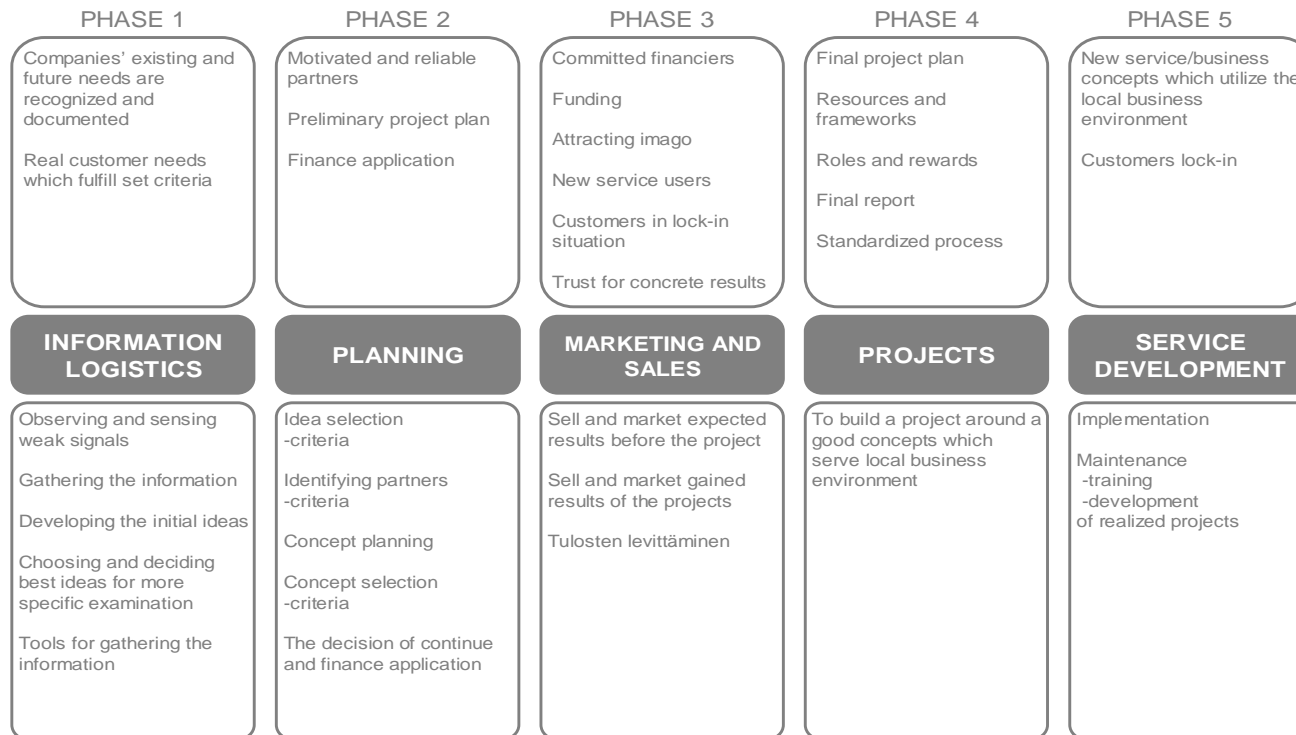
**Is the co-operation with Lappeenranta Innovation Ltd fulfilled the set expectations? If not, which are the reasons for that?**

**How the results of co-operation appear in your company's business?**

## Appendix 5. Primary activities



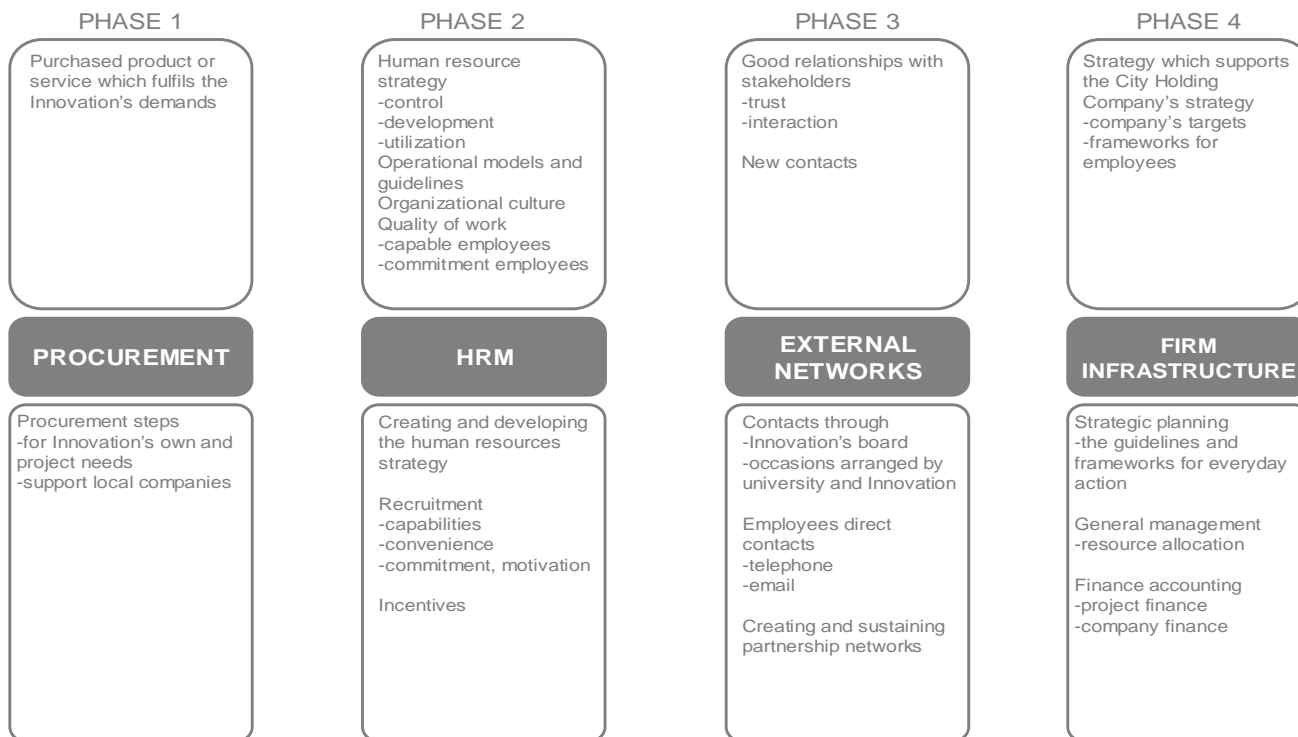
# PRIMARY ACTIVITIES



## Appendix 6. Support activities



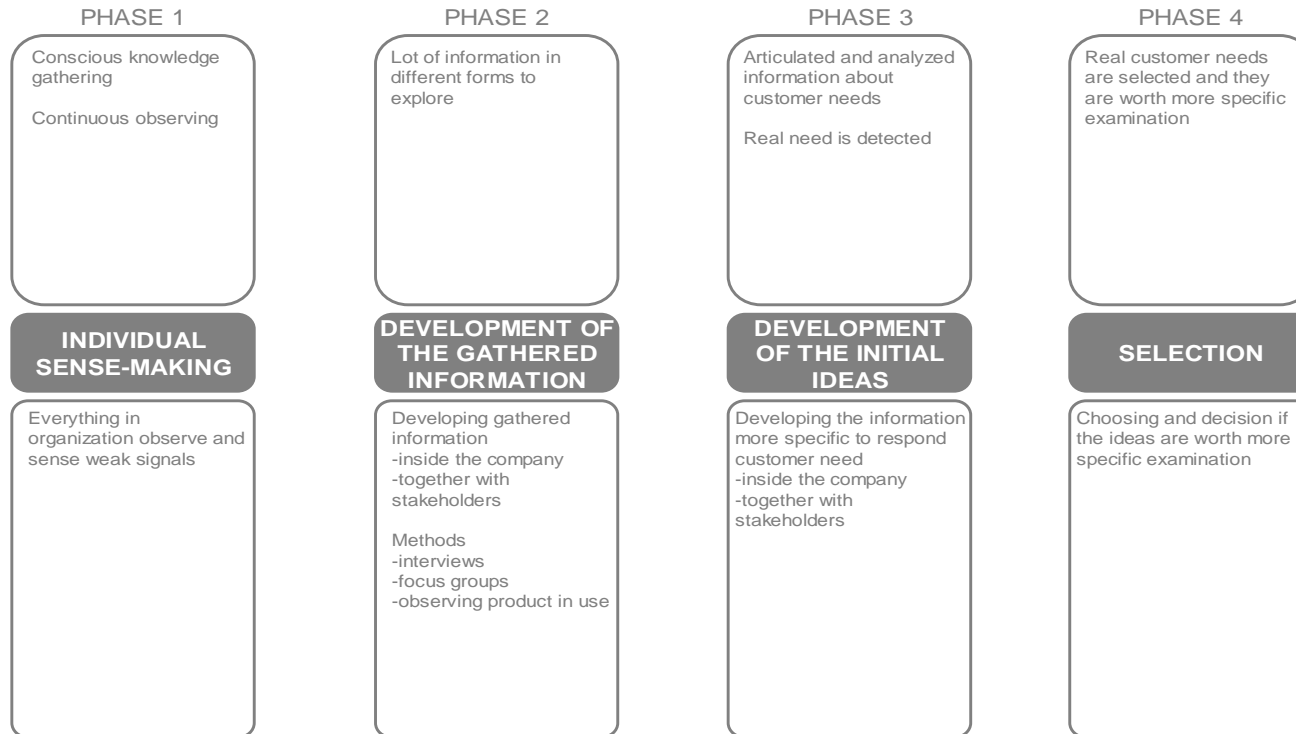
# SUPPORT ACTIVITIES



## Appendix 7. Information logistics

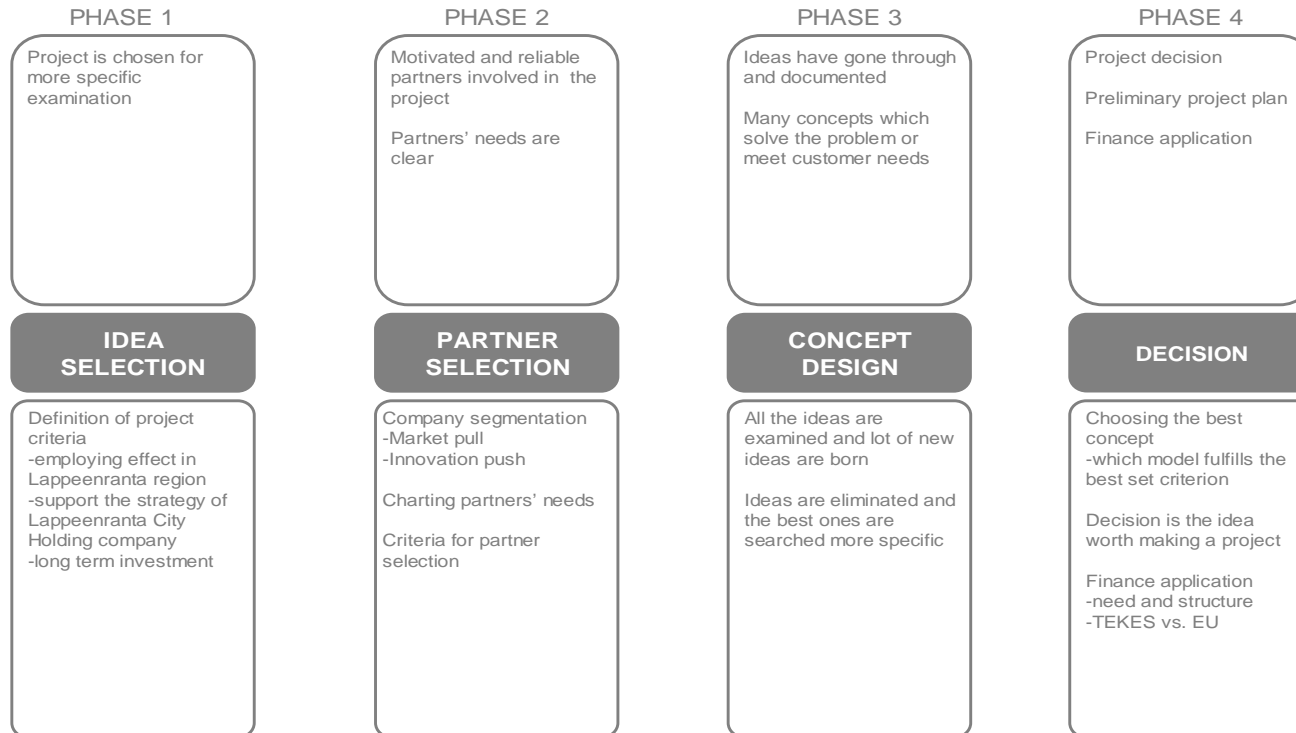


# INFORMATION LOGISTICS



## Appendix 8. Planning

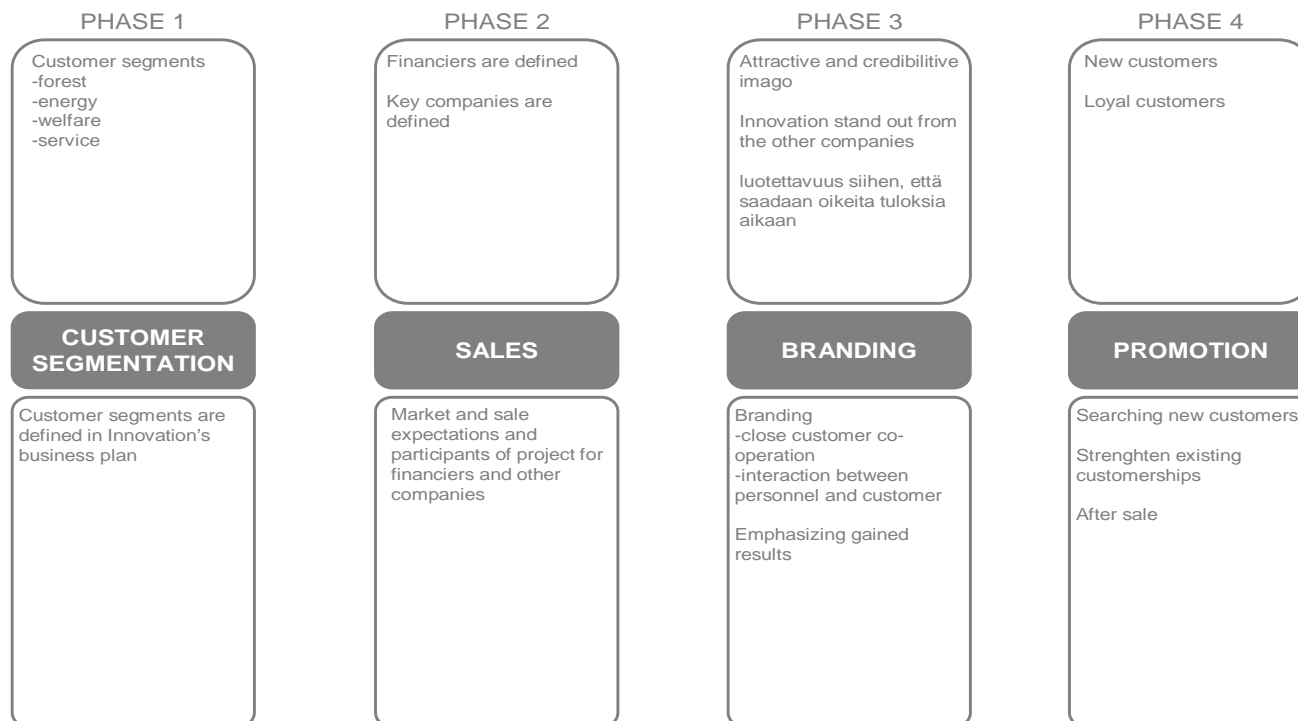
# PLANNING :PROJECT IDEA AND PARTNER SELECTION



## Appendix 9. Marketing and promotion



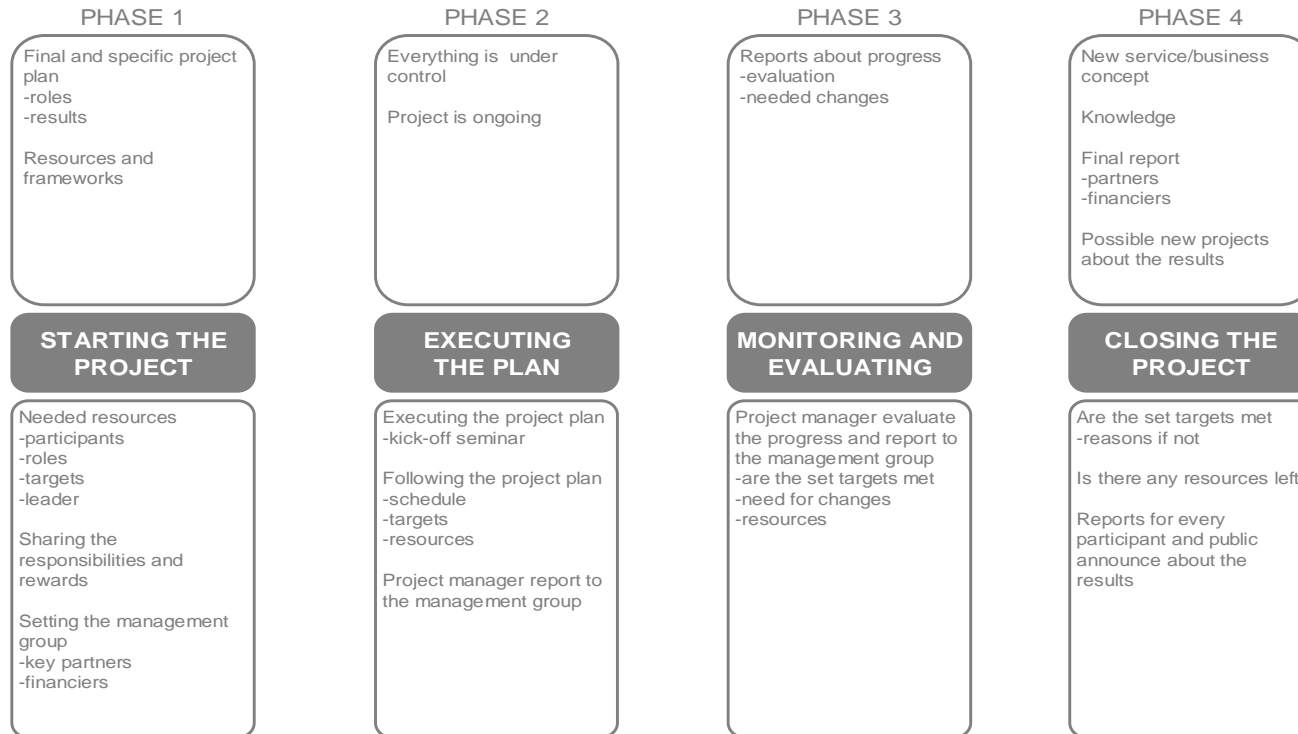
# MARKETING AND PROMOTION



## Appendix 10. Projects



# PROJECTS

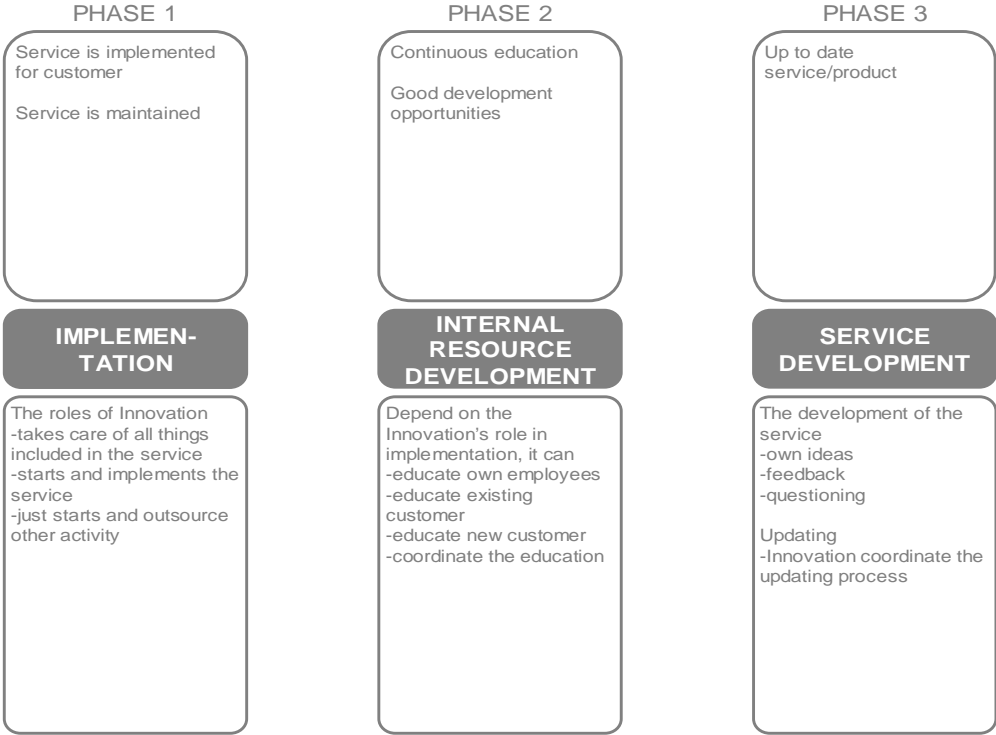




**Appendix 11. Service development**



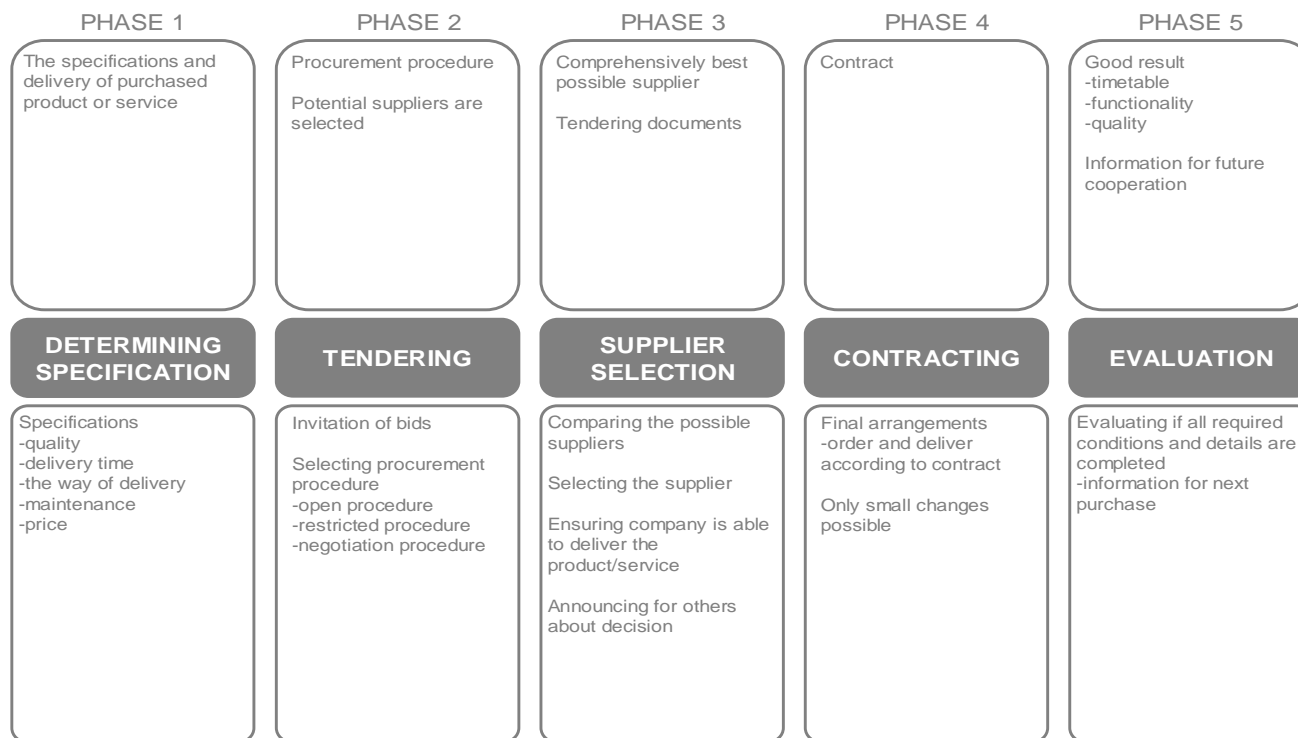
**SERVICE DEVELOPMENT**



## Appendix 12. Procurement

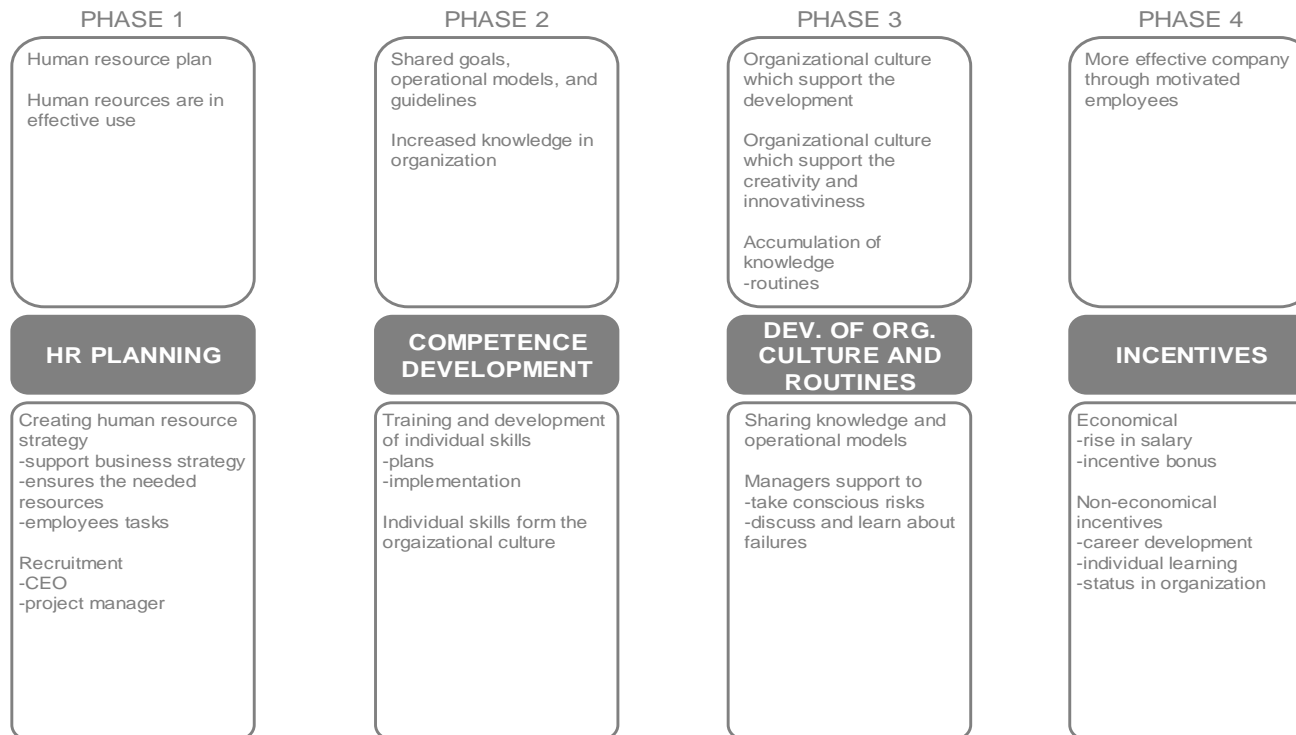


# PROCUREMENT



## Appendix 13. Human resources management

# HUMAN RESOURCES MANAGEMENT



## Appendix 14. External networks



# EXTERNAL NETWORKS

### PHASE 1

A network which supervises the interests of other participants

#### CREATION AND SUSTAINING OF NETWORKS

Creating and sustaining a network  
-personal contacts  
-occasions arranged by university or Innovation  
-contacts through Innovation's board

### PHASE 2

Operational opportunities  
Newest knowledge about  
-directives  
-laws  
-business projects

#### KNOWLEDGE TRANSFER

The knowledge is transferred through everyday action between  
-TE-Centre  
-university  
-key companies

## Appendix 15. Firm infrastructure



# FIRM INFRASTRUCTURE

