Finding innovative capabilities and obstacles in a SME with outsourced production processes

A case study of a Swedish manufacturer of electric devices

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Foreword

This thesis work is the final moment in Master Programme in Management of Logistics and Innovation. I would like to start by thanking the case organization for the friendly response I have received during this thesis work. This has facilitated for me as a student and my implementation of the thesis work. I would like to express a special thanks to my supervisor within the organization, who has acted as a contact person and contributed with useful and necessary information and guidance.

I would even like to thank my supervisor during this thesis work, Ioana Stefan. I find that I have received very useful supervision and help during my thesis work. We have had regular meetings that contributed with rewarding talks and discussions about the subject. It has been an important part of me to have someone to discuss with.

Mattias Norling

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Abstract

**Introduction and purpose:** Innovation has become an increasingly important part of organizational development, both product development and process development. This due to globalization and increased competitiveness on the market. Innovation is about to develop and adapt strategies to focal organization, and to improve capabilities that is useful for current situation and circumstances. This is something that has proved to be difficult for organizations. The case organization in this thesis work perceive to find strategies for how to structure their work with innovation management, by make use of the skills and available resources. The purpose of this thesis work is to identify obstacles that prevent innovation and to suggest how a small and medium-sized enterprise (SME) with outsourced production can improve their innovation capabilities to be more competitive in market.

**Method:** This thesis work is based on information collected and analyzed through semi-structured interviews with managers within a case organization. The interviews were carried out in order to create an understanding of current organization. Chosen questions concerned how the organization are working with innovation management.

**Results:** Obstacles for innovation capabilities can be based on several different factors. For example, an obstacle in this case could be lack of internal competencies, lack of communication between the organizational departments or too extensive project. Such obstacles are commonly expressed within the organization. Even, unexpressed obstacles could be another factor. Structure and definition of the innovation work, or outsourced production processes which results in limited possibility for impact, are examples for unexpressed obstacles. Both types have a significant impact on innovation capabilities, but it may be different to encode.

**Conclusion:** Through this thesis work, several obstacles that prevent innovation in organization have been identified. These obstacles regarding to structure and develop an internal functioning work with innovation, were all concerned parts promotes for an innovative organization. Increased market knowledge and external collaborations are also important strategies for SME organizations with outsourced production processes to consider, in order to improve their innovation capabilities.

**Keywords:** Innovation Management, Innovation with outsourced production, Innovative culture, Be innovative with existing resources, Increase innovation capabilities.
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1. Introduction

*In this chapter the background of this thesis work will be presented, as well as the purpose and research questions that have been used.*

1.1. Background

The concept of innovation and its influence of civilizations has ever been important to take into consideration (Inauen and Schenker-Wicki, 2011). This, as strategies for creating new products and processes always have been important for survival in changing and developing environments. It has been a strategic necessary element to use for increase creativity in organizations (ibid.). Even, innovation enables the organization to enhance opportunities for survival in global competition, maintain competitiveness on the market and to improve and grow economic performance (Dereli, 2015).

Agile markets and competitiveness on global markets has increased over recent years, it has been easier for the customer to choose supplier or products world-wide. Innovation has in this way become more vital for organizations and is considered as a significance to achieve competitive advantages for business success (Damanpour and Gopalakrishnan, 2001). Callahan and Lasry (2004) further develops similar statements and mean that innovation management and the ability to be innovative and develop new competitive products has been crucial for modern organizations, especially in market related to technologies (Callahan and Lasry, 2004). To succeed and make this feasible, organizations need to be creative and come up with new ideas and solutions, but even to manage such in a correctly way (Dereli, 2015). It is about to developing and managing in a systematic and strategic way, continuously (ibid.).

However, there are multiple factors that prevent innovation capabilities for organizations. Innovation is a broad concept that concern several aspects that needs to be taken into consideration for successfulness (Dereli, 2015; Escrig-Tena et al., 2018). It is therefore important to develop innovation strategies that is adapted to focal organization and its goals, something that has proved difficult for organizations to do (Escrig-Tena et al., 2018).

Outsourced production enables the organization to be more focused on product development, as they did not need to pay attention and resources to production processes (Strauss-Kahn, 2004). However, they have not the opportunity to take employees opinions and thoughts in consideration, which otherwise is useful for development (de Jong and Den Hartog, 2007).

The case organization in this thesis work would like to be anonymous and will therefore in this thesis be presented with alias Alpha. Alpha is a medium-sized organization and are producing and developing electric devices. They are seen as the global leader in their business, but the market they are acting has become increasingly competitive in recent years and there is therefore a need to become more competitive as an organization for. In addition, market
conditions and opportunities change rapidly, and the need to be creative. Thus, innovation become increasingly important. Innovation management have in this way been a crucial factor for organizations to consider, and the organization feels that their work with innovation is in need of improvements.

A main obstacle that is perceived by the organization, regarding innovation, is to find appropriate strategies for how to structure the work of innovation management to actually receive any positive effect from it. It is about developing the organization's work with innovation to find and make use of the skills and available resources.

1.2. Purpose

The purpose of this thesis work is to identify obstacles that prevent innovation and to suggest how a SME with outsourced production can improve their innovation capabilities to be more competitive in market.

1.2.1. Research questions

- Which factors prevent an organization’s innovative capabilities?
- How can a SME with outsourced production be more innovative?
2. Method

In this chapter, chosen methods for implementing the thesis work are presented. Selected methods are motivated by using existing scientific theories.

2.1. Research approach

The approach of an empirical case study can, according to Bryman (2016), either be based on theoretical assumptions (positivistic approach) or support and contradiction of already established theories (phenomenological approach). The positivistic approach aims to generate hypotheses that can be tested, and the theoretical knowledge in this type of approach is based in natural phenomena and its correlations (Bryman, 2016). The phenomenological approach requires the researcher to stay beyond specific details and focus on to understand the reality and the whole context (ibid.). Of this to be interpreted, the thesis work will be conducted with a phenomenological approach, as it will be focused on to understand the context of the case organization’s work with innovation.

2.2. Approach of theory development

Karlsson (2016) present approaches of theory development and characteristics for each of them. In common, such approaches are based on same components and factors, for example rules, research materials and results or conclusion, but that they are exploited in different ways. For this thesis work, an abductive approach has been used. The abductive approach is characterized as a combining of the deductive and inductive approach, as the approach includes both theory and empirical data (Bryman, 2016). In a research with deductive approach, hypotheses are based on current knowledge and seeks to test established theories and, in this way, influence it (Karlsson, 2016). In comparison, the inductive reasoning is not structured on hypotheses, and the theories are based on observations and experiments of reality and phenomena (Bryman, 2016). Usually, this method of abductive theory development begins with an observation of a phenomenon, where empirical data will be collected. Then, by using theories, the approach aims to try to find the simplest and most likely explanation for the outcome of the empirical data (ibid.). According to the way of data collection in this thesis work, the approach of theory development will be abductive. This as empirical data has been collected by interviews with the members of the case organization, in order to create an understanding of their business, to then using theories for explanation of the phenomena. The data collection was carried out in the initial phase of the thesis work, to then provide support for the gathering of theory and further progress. Chosen method was used to create an understanding of the current problem that the case organization experienced and what its causes was, to then collect theories within the subject. This, due to that the current subject was unknown in the beginning of the thesis work.
2.3. Case study

As this thesis work aims to investigate an organization and their strategies, the study will be categorized as an explanatory case study (Biggam, 2015). Karlsson (2016) presents three outstanding strengths with case studies; (1) the phenomenon can be studied in its real environment and influencing factors can be observed, in order to create an overwhelming understanding, (2) the method allows for questions as why, what and how, and (3) the method lends itself to exploratory investigations with unknown variables and imprecise phenomenon. The method of case study, according to Ketokivi and Choi, (2014), may be useful in several types of research purposes, mainly in researches that aims for theory building, theory testing, theory elaboration and exploration.

According to Bryman (2016), case studies are often referred as a research approach that aims to do a detailed exploration of a specific case, for example an organization or a community, and includes different types of empirical data collecting methods. Remenyi et al. (1998) indicates that case studies are one of the most appropriate and frequently used research approach to examine research questions in business and management researches (ibid.).

This thesis work aims to do an exploration of Alpha, by collecting empirical data using different methods to understand the complex phenomenon of the organization. Case studies enables, according to Remenyi et al. (1998), the researcher to retain a holistic perspective of a complex phenomenon. Case studies allows for explorations of real cases, such as managerial processes or different types of struggles within organizations and gives therefore the researcher opportunities to knowledge as with other approaches is hard to receive (ibid.).

According to the theories by Remenyi et al. (1998), chosen method in this thesis work is perceived to be appropriate to obtain as much information as possible about the organization and their work with innovation.

2.3.1. Presentation of case organization

Alpha is a medium-sized enterprise producing different types of electronic devices. Their business started a few decades ago and as a project and they are now seen global leader of their business. The organization is located in Sweden and they are producing their products in China. The organization consists of approximately 100 members and employees in each factory are employed by Alpha. Their products are available in nearly 100 countries.

2.4. Primary- and secondary data

Primary data is seen as the data collected throughout the focal project or research (Saunders, Lewis & Thornhill, 2016). To characterize data as primary, analysis is required to be conducted by the researcher that has collected the data (Bryman and Bell, 2015). If the data instead is collected by one researcher and then analyzed by another, data will be characterized as secondary data (ibid.).

The main part of the empirical data used in this thesis work is collected as primary data, collected by conducting interviews. Secondary data has to some extent been used in the beginning of the thesis work, in terms of information retrieved from internet with different types of sources related to Alpha, in order to create an overall understanding of the organizations business.

The choice of using secondary data collected by internet in this thesis work are based on the theories by Biggam (2015), as argue that secondary data refers in researches to contribute with
scientific theories and enables for an understanding about the current subject. By using secondary data in this case, the data contributes with an overall and general understand of Alpha as a brand, at customer level.

2.5. Qualitative research

Bryman (2016) states some characteristics and contrasts between qualitative and quantitative research. Qualitative research refers to analyze a subject or society and presents the results in words, while quantitative research is about to applying measurements and procedures to calculate and present results in numerical values. Also, in qualitative research, the researcher is dependent of those being studied, its society and how they are acting. In quantitative research, the researcher is the guiding factor and affects how the study will be conducted, and how the results will be collected (ibid.).

Remenyi et al. (1998) presents that evidence in researches can be divided in different ways. In qualitative researches, evidence can either be presented as verbal testimony, for example written reports and audio interviews, while in quantitative researches the evidence is mainly based on different forms of measurements of physical properties, or performance in the actual subject (ibid.). Regarding this, the two different approaches of the qualitative and quantitative approaches are not mutually exclusive, and they are therefore suitable for combining. Combination allows for addressing different aspects of a research problem (Remenyi et al., 1998).

As the main part of the empirical data are collected through interviews, the thesis work will be seen as a qualitative research. The thesis work refers to analyze a society and its affecting factors, to by word presents some results and statements. Society in this case will be the organization of Alpha and its business. Any combination of research approaches has not been done, as the data collection in this thesis work have been focused on verbal testimony. This, as it was perceived as the most appropriate strategy in this thesis work.

2.5.1. Interviews

Interviews constitutes as the main data collection method in case studies (Remenyi et al., 1998). Interviews can be conducted with different strategies (Bryman, 2016) and for this thesis work, semi-structured interviews have been used. Bryman (2016) define semi-structured interviews as were the interviewer has a series of prepared, often generally, questions to deal with. However, the prepared questions will just act like a schedule or guideline and the sequence can thus be improvised and enables for up-following questions (ibid.).

Semi-structured interviews can be carried out in several forms, for example by phone, live online or like personal interviews (Remenyi et al., 1998). Personal interviews, which was used in this thesis work, are categorized as a face-to-face conversation between interviewer and respondent (ibid.). Strategies and approaches may be different in formality, thus personal interviews can be informal to very formal based on the actual case.

Questions in personal interviews are generally open ended which allows for the interviewer to revise the questions during the interview as well as add questions and follow-up questions (Remenyi et al., 1998).
According to the purpose of this study, personal interview was seemed to be the most appropriate method to use. The interviews took place at Alpha’s location in Sweden. Each interview was conducted externally outside the work environment and individually in a conference room. Each conducted interview took use of between 20 minutes to 60 minutes.

The interviews were carried out in three different days, distributed as 4, 4 and 2 interviews per day. The time for interviews were adapted to respective respondent’s personal schedule, which contributed to different times. Some of the interviews were conducted during the morning, and others in the evening.

The questions (Appendix 1) that were used was open and general to suit all respondents within the organization, despite competencies and skills. The same main questions were used for all respondents, to create an understanding how the organizations business works.

2.5.1.1. Pros and cons to conduct interviews

Bryman (2016) states that interviews are preferred to be used in quantitative researches, when it promotes standardization of both the method of questioning and the recording and sampling of the answers. This causes reduced errors in variation and facilitate the interpretation of data (ibid.). It is, according to Bryman (2016), important that the respondents have right competences for the interview to generate, for the subject, useful data. To ensure that the respondents in this case had right competencies, the choice of respondents was limited to functions within the central organization. Most of the respondents were managers and have therefore central roles in the work with innovation management.

During interviews in case studies, Remenyi et al. (1998) state that the interviewer will generally receive a large amount of data from the respondents, which require that care needs to be taken. Bias and evidence regarding cultural preconceptions and conventional wisdom are always common issues to consider, then it always in certain extent is presented by the researcher or the respondent. Bias and evidence in interviews needs to be taken into account to avoid negatively effects on collected data, which may be minimized by using triangulation techniques (were two or more methods has been used in to check the results) (ibid.).

The approach of personal interviews can be seen as extensive. Thus, it may require much time in interviewing, preferably between 45 to 90 minutes, and that it is time consuming to compile and analyze collected data (Remenyi et al., 1998). It is also time consuming in terms of gain access to the respondents, to train and prepare for the interviews and to coordinate and supervise the fieldwork (ibid.). However, the research approach provides to facilitate and probe complex issues as it may relax the atmosphere. The approach also enables the interviewer to collect and record additional data that may be complementary, data that with other approaches will be missed (Remenyi et al., 1998).

Gaining access to respondents for interviews in this thesis work was as desired, despite that it in some situations was hard to find times that fit both parties. However, all respondents were interested in the interviews and received it positivistic and with openness.
### 2.5.1.2. Prepare questions for interview

Questions in an interview are needed to be clear, and it is as an interviewee important to always ensure that the questions are unambiguous and easy to respond (Bryman, 2016). It is even important to be aware that answers do not always correspond to what expected, and that the interview therefore may result in unexpected outcomes (ibid.). When exploring new areas, it is according to Saunders et al. (2016) appropriate to use different types of interview questions. They mean that it is useful to use both open questions, probing questions and specific and closed questions. While open questions allow the respondent to define and describe a phenomenon extensive, the probing questions enables for more wide and unforeseen in-depth answers (ibid.). Specified and closed questions contribute with basic information which can be appropriate to complement the collected data with. At the same time, it is important to avoid leading or proposing types of questions in order not to affect the result negatively regarding for example bias (Saunders et al., 2016).

Interviews in this thesis work were well prepared before the execution, and the time schedule that was revised and more time than previous estimates were used. This due to reviewed theories that increased the knowledge and the need to prepare interviews well before the conduct. The interview questions were send out to the respondents about one week before execution, this to enables for the respondents to be well prepared for the interviews and reflect on the topics by themselves. The preparation is experienced to contribute with increased understanding for the interviews and facilitate for the coding. The main part of the interview questions was of an open structure, while some follow up questions can be seen as closed questions. Such types of follow-up questions concerned a presentation of the organization and its products.

### 2.5.1.3. Act as an interviewer

For interviews to succeed, the interviewer needs certain types of skills (Yin, 1994). These skills regard: (1) to be able to conduct good questions and interpret the answers, (2) be a good listener, (3) be flexible (4) have a firm grasp of the purpose of the interview and (5) be unbiased (ibid.). The questions should be formulated in a factual way to avoid negatively affects like misinterpretations (Saunders et al., 2016).

For this thesis work, mentioned factors for acting as an interviewer has been considered, to not affect the empirical data negatively as an interviewer. The preparation of questions was aimed to formulate questions that would be possible for all respondents in the organization of Alpha, regardless of education or experiences. During the interviews, focus on to be open minded, to let the respondent explain their thoughts before follow-up questions and to avoid bias was main factors that were in mind. This was perceived to work well at the time of the interviews.

### 2.5.1.4. Choice of respondents

As the production is in China, the interviews were mainly conducted with managers as respondents. For the interviews, respondents were selected by their position within the organization and how they are affected by the daily work with innovation. Both top managers and middle manager were participating, and they have different position that in different ways
are influenced by the innovation management work. Each of the respondents are responsible for their department within the organization. Some of the respondents was also representing the same department, with contributed to increased understanding of such departments. Respondents positions within the organization is presented in Figure 2. The respondents were CEO, R&D Manager, Quality Manager, Electronic Engineer, Innovation strategist, Innovation technician, Laboratory assistant, Project leader, Business Unit Manager, Electronic Design Engineer.

In total, 10 respondents were interviewed. There was an opportunity to interview several more respondents within the organization, but it was decided to limit the number of respondents since more interviews was not perceived as generating new data and knowledge. Another cause was due to the time limitation and the opportunity to negotiate time for interview that suits both parties.

2.5.1.5. Recording interviews

When using interviews as a data collection method in research, it is advantageous in several ways to record the interviews, according to Bryman (2016). It allows for repeated and more in-depth examination of the respondents’ answers, which may contribute with increased understanding compared to limited notes written at the time of interview. It contributes even to reduced loss of data, which otherwise is a part of human factors; data that usually might be forgotten by the interviewer is instead saved and is available to take part again. In other words, data collected in interviews that were recorded are easier to code (ibid.).

Most of the interviews were recorded using a phone application called Voice Memos. In the beginning of the interviews that were recorded, the respondent was asked if it was allowed to record the interview. At the interviews that were not recorded, the interviewer considered that there were insufficient needs of recoding, or that it was not appropriate to record.

2.5.1.6. Coding qualitative data

Biggam (2015) argue that when empirical data has been collected, you need as an interviewer to describe what have been collected and then analyze the meaning of the data, in other words to conducting an empirical data analyze. To facilitate the empirical data analysis, it is appropriate to initiate analyze by making a data description, aimed to develop what kind of empirical data is collected and what the data includes. This to create a basic understanding of the data and its correlation to the current subject, as well as improve the creativity of upcoming analysis (ibid.).

Analysis of qualitative data can be divided into different methods. One method is to divide and categorize the collected empirical data into subgroups to facilitate cross-comparisons and analysis. Another method is to distribute and categorize the aggregate data in the subgroups to compare the conformity and analysts. For example, if the data collection refers to an organization or activity, subcategories can be shared by processes and divisions (Biggam,
Incorporate such subgroups and headlines in the interview from the beginning, as the more well-prepared the interview is, the easier it is to interpret the collected data (ibid.).

The collected data was coded as soon as possible after each interview, which contribute to sharper the understanding and interpretation of the data (Bryman, 2016). Time for coding is allocated in the interview schedule due to coding of the data. By obtaining an increased understanding of the interviews, Bryman (2016) argues that remaining parts of the thesis work will be facilitated. Coding of data needs to be done repeatedly, to create a deeper understanding of its meaning (ibid.).

As the thesis work was time-limited to ten weeks, the focus was to understand and interpret the data to enables for good conditions throughout the analysis. The greater the understanding of its meaning is assumed to contribute to increased understanding of the organization's activities and business culture. As the main part of the interviews were recorded, the coding of data was facilitated and all information that was perceived as necessary of the discussed during was made possible to take in consideration.

When coding the collected data, some code categories has been focused. These categories are innovation definition, innovation capabilities, obstacles for innovation and internal collaborations.

2.5.2. Participant observations

Participant observations is the best-known method to use in business and management researches (Bryman, 2016; Bryman and Bell, 2015). Karlsson (2016) mean that participating observations enable the researcher to learn and study how an organization is working, and to investigate and take part of the internal organizational culture. All organization have their own characteristics regarding communicational networks and work environment, which is possible to become a part of during participant observations (ibid.). According to Bryman (2016), participant observations can be carried out in different extents and with different purposes, depending on what type of area that will be observed and what type of study.

In this thesis work, participant observations can be seen as used in some cases. As the interviews were conducted at the organizations location, the work environment was observed. By conducting the interviews in the organization's location, it was as a researcher possible to create a general perception of the working environment. However, the observations have not been considered to the same extent as the collected data through interviews.

2.6. Quality criteria in research

Depending on the researchers own interests to concern reliability, replicability and validity in research, these have different value for the evaluation of a case study (Bryman and Bell, 2015). While some authors mean that these aspects of evaluation do not is necessary or applicable in case studies, other mean that it has a significant role for the interests of the study (ibid.). In this thesis work, all three aspects of evaluation have been considered. Each aspect and how they affect this thesis work will be presented in following paragraphs.
2.6.1. **Reliability**

Reliability concerns, according to Bryman (2016), whether the results of a study are repeatable or not. Reliability are often discussed in correlation with quantitative researches, if the results are measurable and possible to achieve the same results once more, but it is also important that results in qualitative researches are possible to do conduct the study one more time (ibid.). Reliability is one of the two most important criteria to consider in case studies, regarding to the theories by Karlsson (2016). To facilitate and obtain best conditions for as high reliability as possible in case studies, it is important to use case study protocols for note during the research and to develop a case study database (ibid.). During this thesis work, essential protocols and notes have been made and used. This to facilitate the implementation of the study, but also to enables for high reliability and replicability.

2.6.2. **Replicability**

Replicability is according to Bryman and Bell (2015) the opportunities to replicate the study that another researcher has conducted. A study must be able to be replicated, which is about to in details give a description of what have been done and how the procedure of the study was implemented (ibid.). However, replicability is more important in quantitative studies than in qualitative as it will be essential to be able to achieve the same numerical results (Bryman and Bell, 2015). At the same time, it could be complicated to replicate a case study, as it requires access to the actual case which is dependent by several factors that may affect the outcome (ibid.). To enables for conduct replication of this thesis work, the report is purposed to provide a sufficiently detailed description of what have been done and how it has been done. Presented methods that have been used in this thesis work was for the moment appropriate and useful to conduct the study.

2.6.3. **Validity**

Validity is seen as the other of two criteria regarding importance in case studies (Karlsson, 2016). Validity is, according to Bryman and Bell (2015), seen as the most important criterion of a business research and concerns the integrity of the study’s conclusion and outcome. There is several types of integrity perspective and the criteria is therefore divided into different dimensions; internal validity and external validity (ibid.). Beyond of these, Karlsson (2016) also present construct validity as a dimension.

2.6.3.1 **Internal validity**

Internal validity deals with the questions whether a significance between two or more variables are representative and sustainable for an actual phenomenon or not (Bryman and Bell, 2015). This means, in other words, to be able to prove how the variables affect each other and the conclusion of the study, and the strengths of the research (ibid.). In case studies, Karlsson (2016) mean that it is useful to do an explanation building and a time-series analysis throughout the research, to allow for as high internal validity as possible.
10 respondents were interviewed in this thesis work, which is considered to contribute with useful data in a great extent. Chosen respondents have contributed to representative knowledge about the organizational work with innovation management.

2.6.3.2 External validity

External validity concerned, according to Bryman and Bell (2015), whether the outcome of the research can be generalized beyond the specific context, if the empirical data can be generalized to other research areas or not. In this case, the choice and selecting of respondents and participating organizations becomes crucial to enables to obtain high external validity (ibid.). In case studies, Karlsson (2016) argues that it will be tactic to use a replication logic in multiple-case studies to allows for a high value of external validity. It will otherwise be difficult to use the results in other areas and cases (ibid.).

As the purpose of this thesis work, among other things, is about to suggest how a medium-sized enterprise can improve their innovation capabilities to be more competitive, the external validity in this study need to be sufficient. The case study will be representable for a medium-sized enterprise in changing markets, which has been considered during the empirical data collection.

2.6.3.3. Construct validity

Construct validity is about whether correct operational measures for the concepts being studied has been used or not, the degree to which a test measures what it claims to be measuring (Karlsson, 2016). This can be tested by using different types of sources of evidence, seeking triangulation or observing predictions about relationships to other variables are achieved and confirmed (ibid.).

To enables for construct validity in case studies, Karlsson (2016) describes that it is useful to use establish chain of evidence, to use multiple sources of evidence and to have key informants and supervisors for review drafts of report.

2.7. Ethical considerations in business research

Karlsson (2016) describes ethics as a system of codes and morals that would be considered in research. Ethics refers to humanity and the world as a whole, and in this case how it will be affected by the research (ibid.). Ethical for researchers deals with benefits, risks, privacy, obtaining informed consent to mention some basic aspects (Karlsson, 2016). Ethics in research has been an important factor to be aware of and principles for researchers has thus been formulated for researchers in Europe (ibid.). The principles concern respect- for human dignity, utility, precaution and justice (European Union, 2010).

Bryman and Bell (2016) argues that ethics in business research can be divided into four areas, areas that dealing with the harm to participants, lack of informed consent, privacy violations and whether deception is involved. Harm of participant can be an outcome to several extents but have in common that the participant in some cases will be negatively affected by their participation in the research (ibid.). To avoid lack of informed consent in business research, prospective research participants need to be sufficiently informed to decide for their
participation in the study themselves, if they feel satisfied and comfortable to attend to the research (Bryman and Bell, 2016).

The main focus on ethical considerations in this thesis work has been the respondent's and the organizations privacy. The data collected will remain anonymous, regarding who has said what in the interviews. This to avoid misunderstanding and discord. Before each interview, the respondent was informed of the purpose of the interview and the study. This was also announced via mail a few weeks before the time of the interviews, to allow determination of time for interviewing. Even, in this mail conversation, the interview questions were submitted, to enable the respondent to be prepared. In addition, the respondent was asked for permission to record the interview, as well as informed about the purpose of recording.
3. Theoretical framework

In this chapter, scientific material underlying this study compiles. The presentation of theories in the chapter follows a structure in which initially basic theories are presented, to then present theories adapted to the situation of current case.

3.1. The concept of innovation management

An early definition of innovative enterprises is by Ducker (1985) that the organization has the possibility to respond more quickly to market demand changes than competitors, and increased abilities to creating opportunities and exploiting creative ideas. According to Naranjo-Valencia, Sanz Valle and Jiménez Jiménez (2016), innovation comprise the implementation of new or significantly improved and developed products and processes, market methods or organizational methods for practices and external relations. Companies with the capability to be innovative are more able to react and respond to challenges, improve products and processes faster than organizations that not focus on innovation (Jiménez Jiménez et al., 2008), and especially in agile markets (Damanpour and Gopalakrishnan, 2001).

Innovation can be classified into four different types; (1) product innovation, which involves significantly changes of goods and services, (2) process innovation, which comprising significant changes of processes, (3) organizational innovation as aims to significantly improve organizational operations and methods, and (4) market innovation, which refer to involve implementations of new or improved marketing methods (Naranjo-Valencia, Sanz Valle and Jiménez Jiménez, 2016). Simultaneously, Damanpour (1991) differentiate the concept of innovation into two elements; technical innovation and administrative innovation. The technical part of innovation includes products and process development, while the administrative part refers to organizational structures, norms within the organization and new procedures and processes (ibid.).

3.1.1. Technical Innovation

As examples of product innovation, Tidd and Bessant (2009) presents Philips development of led lights, or Toyotas strategies to introduce the hybrid engine. Both types of innovation change the market and its continued existence, while it enables each company to strengthen their competitiveness on each market (ibid.). Process innovation in turn contains of how the organization create and deliver offering of products and processes in the market, for example improving communication channels of telephone services, or extend and improve operations efficiency thorough upgrading equipment (Tidd and Bessant, 2009). A commonly used example in this case is the implementation of start working according to Lean Production (ibid.).

Even though it is possible to categorize these as technical innovation (Tidd and Bessant, 2009), it is according to Damanpour and Gopalakrishnan (2001) important to distinguish them. Product innovation regarding market focus and could be seen as customer driven, as the process innovation has an internal focus and are efficiency driven (ibid.). This contributes with different demands on the organization and its structure, as product innovation requires knowledge in design and customer need patterns, and process innovation knowledge on how to apply new technologies and strategies for product development and commercialization improvements
In order to be more competitive, increasing market share and winning customer loyalty, the organization need to be more focus on product innovation, preferably process innovation (ibid.). Innovation of products can be divided into phases and Lazzarotti, Manzini and Pellegrini (2011) divide the concept into five different phases; (1) idea generation phase, (2) experimentation phase, (3) engineering phase, (4) manufacturing phase, and (5) commercialization phase. The phases follow a structure were one phase must be ended before it is possible to introduce the next phase (ibid.). Based on type of business and product, these phases could be different (Lazzarotti et al., 2011).

Commonly in organizations is that new ideas will stay as ideas in the early phases of innovation (Ahmed, 1998). This due to numerous obstacles shows up, which in turn affects the possibility of compatibility. These types of obstacles could for example be lack of knowledge or access to resources (ibid.). Additionally, innovation will affect the entire organization, as it covers all activities that is needed to create value for the customer (Ahmed, 1998).

3.1.2. Administrative innovation

Both organizational innovation and market innovation could be included in administrative innovation, as it comprises administrative approaches. Klein, Conn and Sorra (2001) define the concept of administrative innovation as the extent to which an organization routinely integrate and make use of innovation capabilities in daily business. This regards to introduce and realize new strategies and to continuously improve existing, to be more competitive in markets that constantly changing (ibid.). For administrative innovation, governmental initiatives and technological has a central importance for its scope (Klein et al., 2001).

3.1.3. Exploration or exploitation

Seeking for new innovation can be done in two different ways, either by exploration or exploitation (March, 1991). Exploration concerns new knowledge by searching for new products, ideas, market possibilities or network and relationships. Exploration is about to discovery and takes risks (ibid.). Exploitation refers to make use of existing skills and knowledge and refining these. This way comprises methods of adaption, efficiency and execution to increase the product innovativeness (March, 1991). Both need to be in focus equally. Too much focus on exploring will decrease the ability to improving existing competencies, while too much focus on exploiting the organization will reduce the function for development of new opportunities. It is important to find the balance (ibid.).

Through exploratory innovation, Teece, Pisano and Shuen (1997) mean that the organization will obtain and develop new competencies and achieve increased export performance by reach new technologies and new positions on the market. On the other hand, exploitation refers to facilitate for lower risks in export operations and increase the efficiency and productivity in searching for solutions by external competencies (ibid.). Independent of either exploratory or exploitation, customer and technology orientations has the major role to achieve the optimal performance (Hortinha, Lages and Lages, 2011).
3.2. Components of the innovative organization

Components of the innovative organization:

- **Shared vision, leadership and the will to innovate**: clearly articulated and shared sense of purpose.
- **Appropriate structure**: organization design which enables creativity, learnings and interaction. Not always a loose “skunk works” model; key issues is finding appropriate balance between organic and mechanistic options for particular contingencies.
- **Key individuals**: Promoters, champions, gatekeepers and other roles which energize or facilitate innovation.
- **High-involvement innovation**: participation in organization-wide continuous improvement activity.
- **Effective team working**: appropriate use of teams (at local, cross-functional and inter-organizational level) to solve problems, require investments in team selection and building
- **Creative climate**: positive approach to creative ideas, supported by relevant motivation systems.
- **External focus**: internal and external customer orientation. Extensive networking.

(Tidd and Bessant, 2009)

*Figure 3 – Components of the innovative organization*

The pattern of innovation is fundamentally differing, dependent of the organizational type (Tidd and Bessant, 2014). Ahmed (1998) argues that the scope of being innovative in organizations usually is misunderstood. It takes more than just resources and investments to be innovative, as it requires to create and manage a culture that has the ability to continuously guide the members of the organization to be creative and strive for innovation (ibid.).

An innovative organizational structure is affected by different types of influencing components and Tidd and Bessant (2009) presents and group such components in their theories (see Figure 3). Those factors are essentially abstract and are commonly influenced by the members of the organization (ibid.).

The first presented component is to share vision, leadership and the willingness to be innovative in the organization. To be innovative, it is required to change and take risks, which can be disruptive and costly for the organization (Tidd and Bessant, 2009). As an organization is based on core competencies in different areas, it is as management unconditionally to take this into account. It is essential to share visions and manage the competencies towards the organizations goals regarding innovation and create understanding and willingness to promote creativity and development within the whole organization (ibid.).

To be innovative, an appropriate structure of the organizations is required, which by Tidd and Bessant (2009) is presented as the second component. An appropriate structure for innovative ideas need to be flexible and transparency, to counteract uncertainty and complexity which innovation can be perceived as (ibid.). The structure must promote for key individuals (the third component) which aims to provide sufficient differentiation of knowledge, and work together to create creative and innovative ideas to respond to changes in market demand. The appropriate structure of an innovative organization brings together key functions to work
together towards common set goals it is fundamental to strive for as high involvement as possible among the members within the organization. (Tidd and Bessant, 2009). This type of involvement is presented as the fourth component (ibid.). Effective team working is presented as the fifth component of the innovative organization (Tidd and Bessant, 2009). Previous research in the field shows that team working increases the ability to succeed in innovation work, as it promotes both the idea generation phase and flexibility of solution development (ibid.). Defined tasks and objectives, effective team leadership, balance of team roles and individual behaviors and constant liaison with external resources is presented as some key elements for effective team working (Tidd and Bessant, 2009).

Creative climate is seen as complex and hard to interpret as it is dependent of its context but can in general be presented as the pattern of how to share values, beliefs and agreed norms to shape behavior within organizations (Tidd and Bessant, 2009). It can thus be difficult to categorize what a creative climate will contribute, and Tidd and Bessant (2009) presents instead a few concepts that can counter the creative climate. The concepts are about limited resources and tool to use, poor communication within the organization, top-down structure and unfocused innovative activity. Another counteracting concept is the reinforcing of the culture of inferiority, were it is lack of understanding of the own work of innovation and its capacity, and focus will be on external knowledge (ibid.). However, external knowledge has a positive impact of innovative organizations and is presented as the seventh and last component (Tidd and Bessant, 2009). It is some extent important to collaborate with external competencies and make use of external knowledge, to receive new knowledge and new thinking that fosters the innovation process (ibid.).

3.3. The innovative organizational culture

The culture of an organization has multiple ways to influence innovation capabilities within the organization. Positive cultural characteristics contributes with important factors for being able to be innovative, and to create an innovative business within the organization to its organizational context (Ahmed, 1998). To define innovative culture is comprehensive, as it will differ between different organizations and are independent of several factors, while Schneider, Gunnarsson and Niles-Jolly (1996) however states four overall dimensions that is characteristics for such organizational climate; nature of interpersonal relationships, nature of hierarchy, nature of work and focus on support and rewards. These aspects concerns, to mention some, trust, decision making, stimulating tasks and types of supporting within the organization – aspects that are presented as central for a creative organizational culture (ibid.). Commonly for cultures is the pattern of arrangement of behavior that will be adopted by the organization to solving problems together (Ahmed, 1998). The ability to create an innovative organization is strongly dependent of norms within the organization. If norms are kept and processed, the possibilities for creativity and innovation will increase (ibid.).

A main factor that affects the capabilities to creating an innovative organizational culture is the people within the organization (Ahmed, 1998). Factors as the willingness of challenges and personal skills and knowledge is seen as the most essential and may affect the culture both
positively and negatively. However, it is necessary to exploit these factors, and to have the ability to utilize these factors correctly, to foster the innovative culture (ibid.). Innovative outcomes in organizations are, according to Amabile et al. (2004), mainly based on thoughts and ideas founded by the organizations members in their daily business. These thoughts and ideas are not only affected by each member’s characteristics, as it is also dependent of the organizational environment and culture (ibid.). Ahmed (1998) presents some organizational factors that promotes innovative capabilities. Mainly, these types of factors regard transparency and possibility to being participate in the innovation management business. Communication, remove barriers and linking the organization functions together has in this way been crucial (ibid.), and fosters for innovative capabilities (Naranjo-Valencia, Sanz Valle and Jiménez Jiménez, 2010). Such type of culture is presented as adhocratic (Naranjo-Valencia et al., 2010; Naranjo-Valencia et al., 2016). On the other hand, an innovative structure also requires outward looking of the organization and a willingness to take advantages of external ideas (Ahmed, 1998). Naranjo-Valencia et al. (2010) indicates by their study, were they have used data from over 400 enterprises, that the organizational culture may affect the capabilities for product innovation. The results by their research show that the organizational culture can enhance the product innovation, at the same time as it can inhibit it, depending on values and norms within the culture. The results also show a correlation between organizational structure and innovation, as a hierarchical culture will have a negative impact on innovation capabilities (ibid.). Regarding these results, the researcher can prove that this effect is equal for both the manufacture and service industry (Naranjo Valencia et al., 2010).

3.3.1 Organizational innovation

A decisive factor for the ability to innovate is, according to Damanpour (1991) how the organization is structured and buildup. Jung, Wu and Chow (2008) found in their research that with low centralization and formalization, the impact of transformational leadership on organization innovation capabilities will be greater. This, as organizations with high value of centralizations generally have their decision-making mainly influenced and concentrated by upper-level management (Damanpour, 1991). Top management influential impact on organizational innovation varies in comparison to other innovation strategies (Westphal and Gulati, 1997). Whereas other innovation strategies, such as market or product innovation, are focused externally, organizational innovation need to be focused internally. Even, the organizational innovation requires top management to be involved in innovation processes to ensure its performance towards success. Also, organizational innovation need to be continuously and comprises engagement of the entire organization (ibid.) and requires participation of all departments within the organization (Kanter, 1985). During this continuously implementation, top management should act supporting and coaching (Westphal and Gulati, 1997), for instance by formulate and communicate compelling visions and goals (Den Hartog and Verburg, 1997). Innovation has been a corporate-wide task and involves production, marketing, administration and purchasing, to mention some departments, within an organization (Tidd and Bessant, 2009). Due to this, the organizational structure is required to change to be more organic in characteristics. As higher value of complexity within the organization, the greater requirements
of flexible structures and processes of the organization to achieve high performance for appropriate organizational structure (ibid.).

### 3.3.2. Influencing individual innovative capabilities

De Jong and Den Hartog (2007) mean in their research that one way for organizations to increase their innovative performance is to establish strategies that facilitate for the employees to innovate. The research indicates that the organizations in this research, acting in knowledge-intensive services, have a lack of work or pay less attention to individual innovation. In this way, employees can improve the overall business performance through their ideas, by improve and develop processes such as production, services and working. Individual innovation is therefore necessary to take into consideration and utilize to attain organizational success (ibid.).

To enable for personal innovation within organizations, the employees need to be motivated and willing to be innovative, which have been a well-known principle for organization management (Ehigie and Akpan, 2004). In organizations were managers strive to increase the individual innovative performance among their organization members, it may be important to attempt to consult the members more often. This in order to ensure that they have suitable independency and self-supporting capabilities in their daily work that support and recognize creativity and innovative efforts and capabilities. The management shall act as supportive (ibid.).

Strategies for communicate visions and goals has been showed by the study to influence the creativity (de Jong and Den Hartog, 2007). By communicating an attractive vision that explicitly involve and incorporate the individuals, may contribute with increased interest in innovation processes and feed opportunity exploration capabilities. Communicate visions in right ways will generate intellectual stimulation and create avenues for sharing knowledge within the organization. Even, frequent contact with external parties, such as suppliers or customers, have a significant impact on individuals innovation. Since they in this way will receive new type of knowledge and facts, it will have a positive impact on creativity and new thinking (ibid.).

### 3.3.3. Collaborations with external parties

In most cases, Open Innovation (OI) and collaborations with external parties are complementary rather than substitutes (Tidd and Bessant, 2014). Collaborations with external parties complement the internal capabilities and enhance the organizations capacity by assimilate and utilize external knowledge (ibid.). Working with the concept of OI would not necessary be a part of the whole innovation process for success, even if a fully openness is the best option as it will contribute with most benefits (Tidd and Bessant, 2014). The concept can also be applied in individual phases of innovation, preferably in the later phases as manufacturing and commercialization (ibid.).

Stefan and Bengtsson (2017) states in their research that collaborations with universities and research centres will contribute with increased novelty in some phases of innovation, especially the idea phase and the engineering phase. It is in these phases more sufficient and profitable to collaborate with universities, against as other possible partners, to enhance the novelty in
innovation processes. However, it also indicates that such collaboration not will generate efficiency in the idea phase (ibid.). Their research also indicates that customer involvement in the early phases of innovation, especially in the engineering phase, has a positive impact and contribute with novelty performance, while supplier collaboration in the same phase has a negatively impact on novelty. Thus, such collaboration with this type of partnership, in current phases, can be categorized as explorative (Stefan and Bengtsson, 2017).

3.4. Customer impact on innovation ability

One of the most critical factor for product developments and improvements for firms, especially firms in the technology-related branches, are to understand market requirements (Zirger and Maidique, 1990). It is as an organization essential to incorporate market demand and customer needs in the process of new products (ibid.).

Callahan and Lasry (2004) shows with their empirical study that customer has a positive contribution for product innovation, while it will reduce risks and waste of resources and leads to a higher degree of product newness, factors that can be essential for being innovative and competitive in changing markets. If the innovation is about to create brand new products and product which distinguishes itself from existing product portfolio, customer have a great impact. As more product newness, the customer impact has greater importance. If innovation instead regarding development of existing products, customer have lesser impact, but it is still vital (ibid.).

Hortinha et al. (2011) state knowledge of customer demand and technological competencies as the two foundations of being competitive and innovative as an organization. These two factors need to be considered equally to achieve desired effect. This as customers did not have the knowledge of new technologies and its continuously development (ibid.). However, in organizations with international markets and performance that is in need to be increased, customers have a greater impact to increase the performance, rather than technologies. This due to that technology development usually requires new competencies, which is consuming regarding both time and costs (Hortinha et al., 2011).

3.5. Effective team working

The importance of teams and collaborations within organizations to be successful and effective together is well documented, but yet unspecific defined (Hoegl and Gemuenden, 2001). Teamwork in comparison to formal organizational work differ in a way were teamwork refers to team members collaborate on a common task (ibid.).

Hoegl and Gemuenden (2001) divided the concept of project quality and the nature of team member working into six facets, facets that is both task-related and social related. These are communication, coordination, balance of member contributions, mutual support, effort and cohesion of performance-relevant measures of team internal interaction. In other words, main focus in team work quality is the quality of team member’s ways of collaboration within the project group and how well it works, rather than project content (ibid.).

Regarding effective team working, the size of the team matter (Hoegl, 2005). Research shows that smaller teams contribute with increased efficiency of internal communication, greater
performance of team members’ capacity, and increased utilization of skills and abilities these members possess. It is common that project teams are too extensive, since their scope is usually based on skills that are considered necessary in the project initiate phase (ibid.). However, there is no optimal size of a team, since the extent is dependent on the purpose of the teamwork and the work to be carried out. Due to this, the size of the team must be determined regard to staffing requirements as well as teamwork requirements. The greater the scope of the team is, the more consideration must be given to the members’ characteristics and knowledge, in order to address complexity. Even, closer collaboration is required to enable each member’s characteristics and knowledge to be integrated and adapted within the group (Hoegl, 2005).

Hoegl (2005) present four ways of keeping project teams small. The first way is to assign large projects in several smaller, split up the project into smaller sub-projects. There might be some coordination between the sub-teams, either through a joint leader or through collaborative communication between the sub-teams.

The second way is to prevent the negative factor of department's various interests, which is commonly in cross-functional projects. Rather than having representatives from each organizational department, it is more profitable to establish a team based on core competencies that is absolutely necessary for team purpose. Remaining competencies outside the team but within the organization shall act as external knowledge for the team and serve when needed (ibid.). The third way has similarities with the second, as it refers to omit specific and object-specific knowledge from the team group, to then take use of external competencies when needed and a problem occur (Hoegl, 2005).

The fourth and last way of keeping projects small is to use project phase-specific team members, which is on board on the project when needed and thus not involved throughout the project implementation (ibid.).

3.5.1. Organizational communication

Miller (2015) present communication about how production processes, to mention some example, can be improved and developed as innovation communication. The concept refers to communication channels within organizations, were interaction about how processes can be done in a better way, or different strategies of how to work to produce. This concept is seen as one of the most essential and crucial regarding communication in organizations, as ideas and improvement suggestions will be important for the organizational continuously development and competitiveness in market (ibid.).

3.5.2. Internal communication

Regarding innovation, middle managers has a significant role in communication about the organizational goals, missions and visions (Hornsby, Kuratko and Zahra, 2002). Middle managers have also the ability to share innovative ideas for top management, as they have a closer understanding of the product and its production processes (ibid.). However, this is mainly essential in organizations with production in house, but also when the production is outsourced. For example, middle managers have the ability to observe the market, analyze the competition and gather innovative ideas and capabilities, both internal but also outside the organization (ibid.).
Morgan (2012) mean that the information within organizations often tends to be ineffective and inadequate. It is, to mention some example, usually lack of communication between the departments of the organization. It is commonly that you as a marketing manager or product developer are not communicate or collaborate with sales and IT department. This, although it could have contributed with useful information for each of the departments (ibid.).

Regarding new thinking and new ideas in organizations, it is commonly that specific project teams are set up to focus on this and thus that the voice of the organization member will be lost (Morgan, 2012). However, it is important to consider all organization members are empowered to share their own ideas and thoughts, which will contribute with useful knowledge to conduct new thinking within the organization (ibid.).

Morgan (2012) presents several benefits that emergent internal collaboration will contribute with. In the lower levels of an organization, each member gets insights in each other work, which allows for greater understanding and knowledge of how processes work and can be developed. This enables the members of the organization to learn from each other and develop capabilities together (ibid.). Also, increased collaboration will give the organization increased opportunities and capabilities to be more innovative and creative to come up with common solutions. It will enable for individual understanding of goals and visions (Morgan, 2012).

3.6. Adopting to fast changing markets

Vigilance learning is one of the strategies that Day and Schoemaker (2016) present as a strategy for adopting to fast changing markets. The characteristics of vigilance learning refers to increased awareness and high value of curiosity. The vigilance learning promotes for the willingness of new knowledge and to act on partial information (ibid.). Another strategy is the peripheral vision, which intends to see signals and possible opportunities to react for nascent threats that competing organizations (Day and Schoemaker, 2016).

The second strategy is mentioned as the peripheral strategy, which is divided into two main steps; scoping and scanning. Scoping in this case concerns how wide will the scanning of the market be, and what issue will be addressed first. This by using knowledge from previous investigations and learn from past experiences, to adopt those experiences to the current case and evaluate them for adaption (ibid.).

The step called scanning is divided into two important differences, based on the intensity of scanning and if chosen strategy is active or passive (Day and Schoemaker, 2016). Scanning is used by all managers to a certain extent, but mostly passively, which reinforces current knowledge rather than seeking new, it will limit possible opportunities and inhibits the curiosity (ibid.). However, strategy of scanning can also be actively that often is driven by hypotheses which by curiosity and willingness strives for testing these (ibid.). Once the organizations, by chosen methods, have increased their knowledge and understand the market and its environment, it is needed to make use of the new capabilities (Day and Schoemarker, 2016).
3.7. Innovation in organizations with outsourced production processes

Lei and Hitt (1995) define outsourcing as the usage of external sources and competencies for manufacturing, or other value-adding activities, of components or products. In other words, the definition is open and broad, and can include several different types of collaborations between independent parties (ibid.). Gilley and Rasheed (2000) argues that due to the broad definition of innovation, there are many different advantageous identified. The most common discussed in theories and scientific are the possibility to improve financial performance and internal organizational advantageous as heightened focus and resources on management and core competencies. Outsourcing enables also the organization to more easily develop relations and supply chains (ibid.).

According to Strauss-Kahn (2004), outsourced production processes may enable the organization to relocate resources and focus on product improvements, while no focus is needed on the production processes. This makes it possible to be more creative regarding new ideas of products and to realize them (ibid.). However, a common issue in this case is that functions as Research and Development (R&D) will be negatively affected by outsourcing, while it reduces feedback and improvement suggestions (Strauss-Kahn, 2004).

The rate and the speed of adoption of innovation, both products and processes, are two types of commonly used methods of measuring innovation capabilities in organizations (Gopalakrishnan and Damanpour, 2000). As higher the rate of adoption is, the organization has the ability to adopt innovation more frequently and consistently. Speed of ability is about how fast and efficient an organization can exploit innovative ideas and execute these. A high value of speed indicates that organization has the ability to utilizing its ideas in a faster way (ibid.). However, the study by Jiang, Frazier and Prater (2006) indicates that such advantages regarding productivity and profitability are not significantly improved in short term. Even, outsourcing would not necessary contribute with cost saving and reduction of resources (ibid.).

3.7.1. The impact of outsourcing on innovation performance

By using outsourcing of production processes in manufacturing organizations, Kotabe (1992) mean that it with a high probability contributing to decreased market performance and development. Kotabe (1992) indicates also that outsourced production processes cause loss of R&D and innovation capabilities that prevents technological breakthroughs and improvements.

On the other hand, the study by Arvanitis and Loukis (2012) indicates contradicting results. Their study is concentrated on the impact of outsourcing of production processes on innovation performance and labor productivity indicates that outsourcing enables for increased innovation performance, in particular process innovation. Regarding labor productivity, the significance is weaker (ibid.).

Glass and Saggi (2001) mean that increased usage of internal outsourcing of production processes will accelerate the progression of technology frontier. They even mean that outsourcing enables for a positive growth effect and increased rate of innovations, which leads to faster arrival of products improvements. However, it requires a well-functioning work with innovation management for success (ibid.)
Rochester (1995) mean that outsourcing reduces the need of education and trainings of organizational members, especially regarding the production. However, it is essential to relocate such education and training to other partners that is involved in the business, for example suppliers, to enhance the collaboration and relation. This is an essential factor that is commonly overlooked in organizations (ibid.).

To summarize the studies on outsourcing and innovation performance, there is a gap regarding theories and consensus within the subject. Available theories are not intended and focused on outsourcing's impact on innovation capacity within organizations to the extent that they should be and there is therefore a need of increased research in the area.

3.8. Summarization of theories

- The concept of innovation management can be seen in different characteristics and are divided types (Naranjo-Valencia et al., 2016; Damanpour, 1991). These characteristics affect an organization in different ways and are dependent of innovation purpose (ibid.).
- An innovative organization are founded by several components that is needed to take into account, in order to be innovative as an organization (Tidd and Bessant, 2009).
- Innovation is dependent of the organizational culture, as influence innovation capabilities in multiple ways (Ahmed, 1998). Among others, the culture need to enable the individual to be creative and innovative (de Jong and Den Hartog, 2007).
- Successful organizations need to have an effective team working, were all organizational members will be involved. However, such teams should not be to extensive (Hoegl, 2005).
- Market demand is an important factor to take into consideration when developing and improve in organizations. It is about to seek for knowledge and new competencies that is required to be competitive (Day and Schoemarker, 2016).
- Organizations with outsourced production processes increase the availability of resources for product improvements (Strauss-Kahn, 2004) and accelerate technologic development (Glass and Saggi, 2001), while it reduces feedback and improvement suggestions (Strauss-Kahn, 2004).
4. Results

In this chapter, collected data through conducted interviews will be presented. The chapter is divided into three sub-headings, based on whether it is obstacles or solutions.

By conducted interviews, there are some identified factors that respondents expressed as problem for innovative capabilities within the organization. It even appeared several possible solutions and strategies that the organization already are working with, that may affect the development of innovative capabilities in a positive way. Also, by conducting interviews, some obstacles were observed, in addition to the respondents’ personal answers. Figure 4 presents the overall results of conducted interviews, factors that will be more specific presented in this chapter.

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<tr>
<th>Internal identified obstacles</th>
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<tr>
<td>• Too few innovators</td>
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<td>• Too high workload</td>
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<tr>
<td>• Need of more internal collaborations</td>
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<td>• Too extensive projects</td>
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<th>Internal solutions identified by respondents</th>
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<tr>
<td>• Increased market research</td>
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<td>• External collaborations</td>
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<tr>
<th>Obstacles emerge through conducted interviews</th>
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<tr>
<td>• Definition of innovation</td>
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<td>• Lack of communication</td>
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<tr>
<td>• Strategies for make use of existing ideas</td>
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Figure 4 – Overview of results

4.1. Internal identified obstacles

4.1.1. Innovation characteristics

Innovative capabilities are based on creative and innovative personal characteristics, characteristics that in this case can be seen as too few in numbers. The knowledge and willingness of being more creative and innovative is perceived as needed and is supposed to generate more innovative capabilities. The interest of being innovative is not as high as it should be, and it is also necessary to be more creative and “think outside the box”, to become more innovative and increase the possibilities of competitiveness, according to some respondents. On the other hand, other respondents mean that there are limited opportunities to be innovative and creative, due to, for example, high workload in their daily work.
4.1.2. Internal collaborations

Some respondents mean that there is in need of more internal collaborations to understand market demand. They mean that there is a need of more engagement and to collaborate more fundamental to understand the market demand. It had facilitated if the departments of marketing and sales expressing to the entire organization the market demands, and what strategies that may be appropriate to use to meet the market demands. It is by these respondents perceived as increased collaboration would contribute with increased understanding of market demand and more efficient work with innovation.

4.1.3. Extensive projects

The organization are working with various councils and project to develop new products. Depending of the project scope, the roles of the project group are distributed. Mostly, the project group are based on competencies from each department within the organization. By the interview answers to interpret, the projects consume unnecessarily time to conduct. The structure of the projects is time consuming and it is hard to realize and complete various aspects of the project. According to some respondents, it would have been advisable to try and improve the strategies of projects and try to speed up its phases, in order to be more effective in working development of new products.

4.2. Internal solutions identified by respondents

4.2.1. Market research

In recent years, it has become increasingly important for the organization to understand market and customer demand. Previously, they have focused on delivering products to retailers, and thus losing the knowledge of customer demand. At the moment, the organization is working with a market research where they are conducting interviews with end customers, in order to understand what they are expect from products. The market research is in the initial phase and the result will be evaluated whether the project is profitable to conduct or not, what value it would entail and if it is necessary to fully implement it. They have currently conducted approximately 40 interviews in total, with customers in five countries (Sweden, England, Germany, Italy and USA).

4.2.2. External collaborations

There are different types of external collaborations, and the majority concerns engineer consultants. Due to the size of the organization, it is hard to be able to get all kinds of competencies in house. The use of consultants is considered unless the need to employ the skills exists, if current project is specific for example. It has therefore been useful to utilize consultants in projects were specific competencies, outside the main subject of Alpha’s business, are needed. Such competencies may be, to mention some, programming of applications and Bluetooth components. Consultants have also been used to create new thinking within the organization, for example regarding different types of designs. The solutions that these consultants come up with are not necessarily used as the end solution, as their ideas and
creativity has been in focus for the collaboration. Alpha has also some collaborations with universities and research centres, regarding design and production flow improvements.

4.3. Obstacles emerge through conducted interviews

4.3.1. Definition of innovation

By interpret the interview answers, the definition of what innovation is for Alpha is experienced quite unclear. While innovation is about to create new products by improve exiting components and use existing components in different ways for some respondent, other means that innovation is about to come up with brand new products, components and ideas. Even, innovation for some respondent can be seen as initiate new processes and strategies that will generate new possibilities for the organization. Also, some respondents argue that innovation is about organizational culture and structure, while others aim for innovation into a specific department within an organization.

A common response by the interviews was that the respondent had nothing to do with innovation work within the organization, and that there was a department assigned to focus on it. The connection with the subject of innovation in their daily work was therefore limited and nothing to stay in focus on within their organizational position. A more intensive internal collaboration between departments are used to some extent during the projects, but there is no guarantee that information reaches the entire member of the organization. This would generate increased opportunities to be more efficient during the product process, both regarding time and economy, as it will be advantageously to scope and to aim right to meet customer demand.

4.3.2. Communication

The internal ability to share information between the different departments within the organization is considered to be in need of development and improvement. There are differences and dissensions between the departments, which through increased communication and structure could be counteracted, by interview answers to interpret. It is for example about the differences of what innovation is, how an organization should be working with innovation management to be competitive. Also, there are differences of the interpretation of how each respondent perceive today's work and strategies of innovation work. Such statements are experienced to vary between the respondent’s position within the organization.

4.3.3. Strategies for make use of existing ideas

The climate within the organization is perceived by the respondents to be open and enables the members to bring out their own ideas. The majority of the respondent experienced that there is room to share their own ideas and creativity, but that it sometimes will be limitations that counteracts the possibility. Such limitation can be the method of sampling new ideas, which is described as unstructured and that it is hard to know what approach to use to present the idea to the rest of the organization. Another limit is that there is no follow-up of existing ideas, which may adversely affect the creativity.
The method of saving ideas is perceived by respondents as in need to be improved. According to the interviews, it is unclear how ideas are accounted, but that they are assumed to be saved in some way.

It was discovered that some respondent has their own ideas and thoughts about how their daily could be improved, even also how the entire organization can develop internal improvements. At the same time, these respondents’ means that there is no room for such suggestions and that high workload and lack of interests will act as inhibitory factor. It is perceived that such changes need to be utilized in a more rigorous and well-formulated way, in order to make it more efficiently.

4.4. Summarization of results

Internal identified obstacles

- It is perceived that the organization is in need of more innovative characters, or to increase the willingness to be innovative and “think outside the box”. The organization is in need to understand the market, what the customer expected by their products.
- They are now continuously working to enable an understanding of market and customer demand, for example by increase the internal collaboration.
- The way of working with projects are too extensive and resource consuming and is therefore in need to be more effective.

Internal solutions identified by respondents

- The organization are currently working with market research project. This, as the need of understand market demand has been more important in recent years.
- The organization is working with consultants to some extents, when internal competencies are lacking. Such collaboration regarding programming and design, to mention some example.

Obstacles emerge through conducted interviews

- The definition of what innovation is for the organization is vague and in need of being pronounced.
- The organizational structure is not as optimal as it should be to promote innovative capabilities. Strategies for communication within the organization is possible to develop to increase innovative capabilities.
- The structure to make use of innovative ideas is in need of being improved and developed.
5. Analysis and discussion

In this chapter, the analysis and discussion of this thesis work are presented. The chapter follows a structure in which each research question is answered in separate headings.

5.1 Which factors prevent an organization's innovative capabilities?

5.1.1. Obstacles perceived by respondents

Innovative competencies
Through questions about internal identified factors that counteract innovation capabilities, some respondents highlight a lack of innovative competencies within the organization. They also indicate that there is a need to be more interest in innovation as an individual, in order to be more innovative as an organization. These statements align with Tidd and Bessant (2009) who state key individuals and member involvement in innovation processes as two of the main components of an innovative organization. Even Ahmed (1998) argue that individuals is one of the decisive factors for an organization’s innovative capabilities.

Even, other respondents answer that it is not possible to be focusing on innovation processes in their daily work, due to high workload. Therefore, according to Tidd and Bessant (2009), innovative capabilities will be restricted, as it is essential to reach everyone within the organization to attain an innovative organization.

Whether high workload is a contributing factor that is general for the entire organization is difficult to determine, since it is not an assertion that all respondents pronounce. It can be a general problem for the entire organization, but also for specific departments and functions. It may therefore be advisable to review the level of workload and how it affects daily operations, if it is perceived as a problem that could cause limitations for the work with innovation management.

Why answers from respondent to this question are differing in this way is hard to interpret. This, as the interview questions was created to be basic and open, and that the respondents have the opportunity to take part of the question before the interviews. In other words, it is perceived that risks of misunderstanding and misinterpretation have been minimized.

This may be an indicator of how the organization is working together and that there is in need of improvements regarding their work with innovation.

Internal collaboration
Another obstacle that respondents was highlighting is the internal collaboration between organizational departments, and its effects on knowledge of market demand. Understanding of market demand is something that in later years has been more important for Alpha to consider, as they previously have been focusing on retailers and are now focusing on end customers. By conducting the interviews, internal collaborations are seeming to negatively affect the possibilities of understanding. There is a need of more and closer collaborations, and increased communication about market demand. Such communication should consider increased collaborations with the marketing department and sales department, and to internally within the organization share their knowledge of market demand.
This is supported by Tidd and Bessant (2009) and their statements of an innovative organization, as it regarding the openness and transparency. Even Morgan (2012) argue for that communication between organizational departments need to be functional, to enable for innovation capabilities. There is in other words needed to continuously collaborate between the departments and working together to reach and achieve higher performance of the organization and its innovation work.

**Extensive projects**

The organization of Alpha are working with smaller project groups and councils, were competencies from different organization departments collaborate in project teams. This is something that Tidd and Bessant (2009) are presenting as strategic advantages to enable for an innovative organization. However, to achieve advantageous from the project form and working teams, the collaboration is needed to be effective (Tidd and Bessant, 2009). An effective team work in this case mean to solve problems effectively and invests in the way of working (ibid.). According to the answers in conducted interviews, the way of working with projects and working teams is time and resource consuming. The approach of working in teams is by the main part of respondents seen as inefficient and limited by resources, and thus in need to be improved.

As Hoegl and Gemuenden (2001) states in their research, communication, coordination, balance of member contribution and support as several main factors for successful and effective team working. Even, according to Hoegl (2005), the extent of focal team should be small to profitable utilize its potential performance. It is also essential to consider which competencies the project team should include and divide larger projects into smaller sub-teams (ibid.). Whether Alpha’s strategies for team working is lucrative for effectiveness is hard to interpret, as the knowledge of these projects only are based on what respondents have informed during conducted interviews. The project groups are adapted to current project and are based on competences that are internally deemed necessary. It is even not perceived that the way to manage projects and project teams is inadequate.

On the other hand, projects are too time consuming and become too extensive, which makes it difficult to manage and it became to resource consuming for making decisions. It would therefore become suitable to minimize and reduce the extent of focal projects, according to Hoegl (2005), and instead focusing on smaller sub-projects.

Also, both Hoegl and Gemuenden (2001) and Hoegl (2005) argues that extensive and ineffective projects are counteracting the project members’ abilities, and therefore even restrict their individual innovativeness and creativity. In other words, even in the case of extensive projects in the organization of Alpha could obstacles be seen as the way of being innovative. It would therefore be suitable to focusing on to facilitate and enable for individual innovation. In other words, to receive desired project performance it would be appropriate to criticize chosen method of project conduct and evaluate what other opinions are available.
5.1.2. Obstacles that respondents did not perceive

Structured innovation

Tidd and Bessant (2009) states structure and creative climate as two of several key components of an innovative organization. Such organization needs transparency between functions and departments, were they are acting together towards innovation success. Inadequate communication, top-down structure and lack of understanding of processes are three central counteracting factors (ibid.). These theories can be considered as essential in the case of the organization in this thesis work. The way to sample and collect ideas within the organization is perceived to be an obstacle that counteract innovation performance. The organizational climate is by the respondents open to some extent and enables for thoughts and opinions. However, the structure of the organization and openness of climate are restricted.

Shared goals and visions are another factor that Tidd and Bessant (2009) presents as main factors for innovation.

One obstacle regarding transparency and openness that was observed during the interviews was the room for new thinking and the possibility to coming up with creative and innovative ideas as an individual. By conducting interviews, it was detected that there is some respondent with own ideas and thoughts about how their daily work, but also the whole organizations work with innovation, can be improved. However, at the same time, these respondents mean that there is no room for such suggestions, due to high workload and lack of interests. It is felt that there is not enough interest to come up with these ideas and thoughts, and that they instead will focus on current strategies. This aligns with the way of saving and sample new ideas within the organization. There is no pronounced structure for how to deal with it, but it is expected within the organization that current manager treats them in some way.

Such obstacles are believed to be in avoidance by the components of the innovative organizations, especially regarding shared visions and goals that Tidd and Bessant (2009) have presented. Nevertheless, even the organizational structure, climate and organizational member involvement will be affecting factors (ibid.).

Also, willingness to improve and change by the organizational members are needed (Amabile, et al., 2004), which is something that by conducted interviews is available within the case organization. There is already existing ideas and thoughts regarding innovation improvements that for the organization, according to the interviews. Limitations that prevent this is whether the ideas are used and how to proceed them. There is a need of structure concerning this, to achieve possible performance.

The internal definition of innovation

One of the questions used in conducted interviews is how innovation is defined within the organization and what innovation is for current respondent. According to received answers, there is no common definition of the concept, as the respondents gave different answers to the question. Even this is something that prevent the definition of an innovative organization and its components (Tidd and Bessant, 2009). The answers differ whether the concept of innovation may include to use existing components in new ways or not, if innovation refers to processes and new thinking, or if innovation can be in terms of acquiring new markets with existing
products. As Tidd and Bessant (2009) states in their model of components, it is essential to work together through commonly goals and visions, which in this case is hard to achieve. Even regarding conducted interviews, the main part of the respondents considers themselves not having anything to do with innovation work within the organization and are referring this to a department or project groups. This contradicts the theories by Tidd and Bessant (2009), Ahmed (1998), Amabile et al. (2004) and Naranjo-Valencia et al. (2010), which illustrates the importance of an innovative culture and creative climate, in order to increase its innovative ability as an organization. It does not seem possible to maintain an innovative organization with different approaches of what the concept is for the organization. It is essential to that all organizational members have a common view of the work with innovation and are acting together. Such obstacles of innovation definition can be a result of poor communication between the departments. Work with innovation management have in recent years and months been improved and ongoing changes and improvements are being implemented. As Ahmed (1998) and Naranjo-Valencia et al. (2016) states in their researches, they mean that communication enable for removing barriers and linking organizational department together are determining factors for innovation capabilities in organizations. Even, according to Miller (2015) and Morgan (2012), communication have a significant correlation to increased innovation performance. Therefore, as greater the communication is within the organization, as higher the likelihood of increased innovation capabilities will be. Communication in this case is experienced to contribute with increased understanding of each other’s work within the organization of Alpha. It could also contribute to increased transparency within the organization and thus increased opportunity to be creative as an individual and bring own ideas that benefit the organization. More extensive communication would also facilitate for finding innovative competencies and internal collaborations.

**Outsourced production**

A main limitation that outsourced production contributes with is the ability to directly receive information and thoughts from operators (Strauss-Kahn, 2004). Such information is, according to Hornsby, Kuratko and Zahra (2002) and Morgan (2012) an essential factor for an organizations effectiveness and innovation capability. There will also been a lack of communication capabilities were development and solutions of processes are discussed, which Miller (2015) presents as another important factor for effectiveness, and also reduced feedback and improvement suggestions (Strauss-Kahn, 2004). On the other hand, outsourced production processes enable the organization to be focusing on product development (ibid.). Outsourced production enables for more easily development of relations and supply chains, according to theories by Gilley and Rasheed (2000). However, even if the production always has been outsourced in the case organization, the organizational development of relations and supply chains are perceived to be in need of improvements, by the interviews to interpret. Such relations do no only apply to external relations but also internal within the organization. It is by the interviews necessary to increase and improve the internal collaborations, in order to be more innovative. That outsourced production enables for more efficient usage of resources (Strauss-Kahn, 2004) than if production processes was located in house is hard to conclude in this case, as they did
have their production processes outsourced since they started their business. Despite this, they are not working with innovation to the extent that they should do.

The organization of the device manufacturer should focus on to increase product and internal process development with available resources. Even, as innovative input by production employees are limited, market demand need to be more focused as it has a significant impact on organizational improvements (Zirger and Maidique, 1990) and product innovation (Callahan and Lasry, 2004). This require the entire organization to come up with improvement suggestions opinions for development. The organizational structure limits the possibilities for externally receiving improvement proposals and need therefore actively focus more on searching for useful information themselves. Such requisiteness is always important but has through this thesis work been considered as more important for organizations with outsourced production processes.

As there is, by this thesis work, perceived a gap regarding theories and consensus of the impact of outsourced production and innovation capabilities and performance is it by this thesis work hard to present general contributions. Available theories are focused on the impact of outsourced production on innovation performance within organizations, to the extent as it should be. However, by using Alpha as a case organization is it possible to present effects in this case.

Whether outsourced production contributes with decisive negatively factors in the case of Alpha is a question of interpretation. As the production is outsourced, they have possibilities to gain some advantages regarding for example focus on other core activities. In the case of Alpha, the choice of production strategy is hard to be perceived as an obstacle for innovation, despite the possibility to take note of operator’s thoughts. Another factor for innovation that can be seen as a contribution of outsourced production is the education and training as Rochester (1995) mention in research. The need of continuous development and training of partners and members that are involved in the organizational business should be well established. The fact that the case organization have different opinions regarding innovation definition, or that the internal collaborations is not well functioning, can be an indicator of inadequate follow-up of work or continuously training and improvements, of the theories by Rochester (1995) and collected interview answers to interpret.

5.2. How can a SME with outsourced production be more in innovative?

Market research
Market demand has, as mentioned previously, been more important for the organization to consider in recent years. Beyond perception of the need of increased internal collaborations between departments to share knowledge about market demand, the organization is working to analyze end customers experiences of the products. The research project is about conducting interviews with customers, to create a general understanding of what a typical customer requests from their products. This strategy is, by the organization, seen as a useful and appropriate tool
for understanding the need and being able to develop their products. The interview question regarding understanding market demand and how they are working with that, the majority of respondents refers to the work with the ongoing market research project. The concept of this research project aligns with the theories by Ziger and Maidique (1990), as they are state understanding customer demand as one of the most critical factors in product development and that it is essential to incorporate customers in the product development. It is also aligning with Callahan and Lasry (2004) who mean that customer demand has a positive significant impact on new product development. This together with technical competencies will increase the strength of competitiveness (Hortinha et al., 2011). Common is that in organizations with production and product processes, knowledge of market demand will increase innovative capabilities within the organization (Ziger and Maidique, 1990; Callahan and Lasry, 2004; Hortinha et al., 2011). In other words, the strategy that Alpha is using can be seen as strategic useful. However, as the organization has their products in approximately 70 countries, the extent of market research project may be discussed. Theoretically, due to the necessity of market demand knowledge, it would be useful to fully implement the market research project.

**External knowledge**

Alpha is using consultants and similar external knowledge when internal knowledge is lacking. This is supported by Tidd and Bessant (2009), who means that networking and collaborations with external parties is an important component of the innovative organization. According to Tidd and Bessant (2014), external knowledge in innovation management should be seen as a substitute to the innovation work and complement internal knowledge. Alpha is using the consultant both to perform services, but also to contribute with new thinking and solutions. They are also collaborating with universities in some specific cases and projects, to what extent does not appear in this thesis work. In other words, such collaboration may positively affect innovation performance in this case. According to Stefan and Bengtsson (2017), it would have been advantageously to collaborate with universities to become more innovative as an organization. Such collaboration should not only be focusing on a specific project and instead being a part of current way of working. Even, they indicate with their study that universities have a stronger significant impact on novelty in the innovation processes than other potential partners (ibid.), which is something that is necessary to take into account when selecting new partners. For an organization with the ability to be more innovative and increase their innovative capabilities is it appropriate to choose to introduce collaborations with universities, rather than other external partners.

**Structure that facilitate innovative competencies**

A common answer in conducted interviews is that the organization is in need of more creative and innovative individuals. Some respondents experience that there is room for creative and innovative ideas, while other indicate that there need more creative and innovative ideas. It is experienced within the organization that there is a need to change and improve current methods of make use of creative and innovative ideas. Why these answers are varying and oppose each other is hard to understand. By the answers to interpret, it is perceived that structure and culture are impending factors.
According to Tidd and Bessant (2009), creative climate and effective team working are two of the main components of an innovative organization, and therefore should not these types of answers be existing in an innovative organization. Even, the innovative organization need to have an organization-wide continuously improvements to together be more innovative (ibid.), something that is hard to reach if there are uncertainties about the way of working within the organization. According to de Jong and Den Hartog (2007) is individuals and their innovation willingness and capabilities an important factor for organizations, as they have significantly impact on business performance. To enable for such advantages, Ehigie and Akpan (2004) argues that management shall acting as support and make it possible to be innovative. This is something that de Jong and Den Hartog (2007) mean is possible to achieve by communicate goals and visions, as it increases motivation to develop.

These statements could be seen as aligning with expressed obstacles of finding innovative ideas and how to collaborate within the organization. Such obstacles are experienced as they could be counteracted by increased and open communication.

Today’s structure and methods for collecting and sampling innovative ideas within the organization is perceived as a prevention factor for innovation performance. It is indistinct how to pass on own ideas and suggestions regarding innovation and improvements. It is assumed that such ideas and suggestions are saved in a structured and methodical manner, but it is unclear how. That kind of phenomenon could, according to Tidd and Bessant (2009), Ahmed (1998) and de Jong and Den Hartog (2007), negatively influencing factor for innovation capabilities and individual creativity.

It is perceived, through conducted interviews, that there are creative competencies within the organization and that they have improvement suggestions for organization development. It was also pronounced improvement suggestions at some the interviews.

There is thus a need of a more defined way of collect and sample such ideas and suggestions, as it, according to Tidd and Bessant (2009), would promote for individual-based innovation and increase the organizational creativity.

To enhance an innovative organization is creative climate and high involvement through the whole organization essential (Tidd and Bessant, 2009). For Alpha, methods for collecting and sampling innovative ideas and improvement suggestions would increase the extent of both creative climate and involvement. It is experienced that simple means could contribute greatly, for example by determine an actual place where ideas and suggestions can be gathered to then be evaluated and discussed continuously within the organization.

Another strategy is to designate a function that is responsible for receiving ideas and improvement suggestions, to then evaluate and carry on these within the organization. Anyhow, regardless of method, it is beneficial to structure the utilization of ideas and improvement suggestions in some way to strengthen the innovation performance.

The internal definition of innovation

The definition of what innovation is for the organization of Alpha is experienced as vague defined, as the respondents in conducted interviews gave different answers on the first interview question (see Appendix 1), despite that the question was basically formulated. This, despite the fact that all departments within the organization have a joint department for innovation as focusing on the whole organizational innovation performance. According to the components of
an innovative organization (Tidd and Bessant, 2009), the definition of what innovation is for the focal organization have a significant impact and is involved in mainly components. Instead of referring the work of innovation to a specific department and competence, the organization needs to define the kind of innovation to be focused on together. Innovation is about the possibility to adapt and respond more quickly to market demand changes (Ducker, 1985), and implement new or significantly improved products or processes (Naranjo-Valencia et al., 2016). Even, innovation management refers to cultural and collaborative strategies and actions that permeate the whole organization (Tidd and Bessant, 2009; Ahmed, 1998; Schneider et al., 1996). It is about to acting together through commonly stated goals and grow as a group (ibid.).

Alpha is required to define type of innovation that their innovation work refers to. Innovation are by Naranjo-Valencia (2016) divided into product innovation, process innovation, organizational innovation and market innovation. Damanpour (1991) have instead divided the concept into Technical innovation and Administrative Innovation. It is important to determine main focus of innovation, if it will be delimited to only product innovation or if it even would be appropriate to focus on administrative and market innovation.

More defined and spoken innovation strategies is assumed to promote for minimized ambiguities and misunderstandings regarding innovation within the organization. It would foster for a more structured innovation management and facilitate for the internal collaboration, which is seen as next subject to consider in order to be more innovative as an organization.

**Reduce the extent of project teams**

Effective projects refer to smaller sub-projects, where communication is effective (Hoegl, 2005) and where it is a balance of member contribution (Hoegl and Gemuenden, 2001). Statements regarding extensive projects is believed to be a negatively factor for innovation capabilities, according to conducted interviews. Projects are too time consuming and it takes too long to make decisions. Even, the decision-making process involves many parties as have been seen as counteracting factors.

According to this, the projects within the organization of Alpha should be reduced in its extent, either by divide current projects into smaller sub-projects or criticize and limit the quantity. It could be perforce to evaluate the extent of participants, something that will be an obstacle for effective projects (Hoegl, 2015).
6. Conclusion

In this chapter, the conclusion of this thesis work will be presented. Even, implications of this thesis work and some aspects to consider for further research are introduced.

The purpose of this thesis work is to identify obstacles that prevent innovation and to suggest how a SME with outsourced production can improve their innovation capabilities to be more competitive in market. Through chosen methods and by using Alpha as a case organization, several factors that affects innovation capabilities have been identified. These are lack of innovative competencies, where the organizational member did not have the knowledge and ability that is needed and required to have for organizational success regarding innovation. Structure of innovation processes need to be well functioned, a structure that enable for transparency between departments and actions together towards success.

Internal collaboration and communication are two factors that is dependent of each other. They are about to spread visions and goals within the organization, but also to allow the members to come up with ideas and thoughts. This in turn have a significant impact on the creative climate and internal collaboration; two affecting factors on innovation performance. At last, undefined innovation within the organization is an obstacle that emerged through the collected data in this thesis work. It is needed that everyone in the organization are aware of what the innovation processes mean, and how to work together with it.

Whether outsourced production processes affect a SMEs ability to be innovative, compared to an SME with in-house production, can be interpreted in different ways by this thesis work and it is hard to draw general conclusions. There are differences between an organization with in-house production, in comparison to an organization with outsourced production regarding innovation. With in-house production, the middle management have a communicative role (Hornsby, Kuratko and Zahra, 2002), a role which with outsourced production not is available to the same extent. The main limitation with outsourced production is the ability to obtain employees opinions about the production process (Strauss-Kahn, 2004), opinions that could have been useful for the innovation management. It is perceived as a greater need innovation among entire organization, where all have the ability to come up with improvement suggestions for development. An organization with outsourced production processes need to be more focused on searching for useful information themselves, in comparison to organizations with production in house.

Outsourced production enables also the organization to be more focused on creativity and product development as they did not need to focus on production processes (Strauss-Kahn, 2004). Outsourced production enhances the possibility of growth and faster product development (Glass and Saggi, 2001) or reduce the extent of education demand (Rochester, 1995). Also, de Jong and Den Hartog (2007) argue that employees have a significant impact on innovation performance. However, to increase innovation capabilities in SMEs with outsourced production processes is it important to define innovation impact for the entire organization. It is about to creating a collective understanding of what innovation means for the
business and how to develop and work together. This is not exclusive for SMEs with outsourced production and also applies to organizations with in-house production.

Regardless of where the production is located, it is essential to consider market demand and what customers expects of the products that are offered to be innovative as an organization. By doing market researches and involve customers in production processes, product development will be positively significantly impacted. Even external knowledge and collaborations will have positively impact on innovation capabilities in organizations. Such collaboration could be consultants or other similar specific competence with knowledge that complement the focal organization knowledge. Even, collaborations with universities may be advantageous regarding to be innovative and finding new solutions within an organization. The main features that can contribute positively in collaborations with external parties are the completion of the existing knowledge that can be obtained. Completion is necessary to create new innovative opportunities together with existing knowledge as an organization.

Willingness to innovate among organizational members is another factor to consider. Individuals willingness and creativity have significant impact on business performance, thus even innovation performance. Willingness will be received by supporting and committed management that pronounce and communicates goals and visions.

In essence, the outsourced production processes do not experience a decisive impact on Alpha's ability to innovate. The main contributing factor that expressing difficulties with innovation in this case is assumed to be based on the undefined work of innovation and how the organization together should work to be innovative. The outsourced production contributes with some obstacles in terms of communication and improvement suggestions, but in this case is it more essential for the case organization to focus on the internal collaboration capacity.
6.1. Theoretical implications

This thesis work describes factors that affect a SME organization with outsourced production processes and its work with innovation management. The study contributes with science-based theories for the scientific gap on how SMEs with outsourced production processes may work to increase their innovation capabilities and thereby become more competitive on the market. This applies primarily to the importance of creating an innovative management that fits the current organization, to working to create an innovative culture and enhancing internal collaborations and together creating a common understanding of processes.

6.2. Practical implications

The practical contribution of this thesis work is that SMEs with outsourced production processes can get guidance on commonly encountered obstacles that prevent work innovation management. The aspects that this thesis work consider can be useful visualization for such organizations to then be able to develop their business continuously, in order to be more innovative.

6.3. Further research

It would have been interesting to do a comparison of several organizations and their work with innovation management. This to create a broader perspective and understanding of how organizations work with innovation, and how its work could be improved. It is perceived that such comparison will increase the generalizability.
Referenses


Appendix 1. – Document used for conducted interviews

**Interview questions**

The thesis work is based on 15 university credits and intends to be completed during the second part of this spring term, between end of March and early June. The purpose of the thesis work will be to present and suggest how medium-sized enterprises with outsourced production processes can improve their innovation capabilities to be more competitive in changing markets. The thesis work will be focused on to analyze how the work with innovation can be more efficient and improved at Alpha, by make use of existing skills. The idea is to provide useful theoretical tools for future work and improvements. Interviews will be conducted during week 15 and 16 with focus on innovation at Alpha. The aim of the interviews is for me to create an overall understanding of how the business works. The interview questions below are the main questions that I plan to use during the interviews. My thought is to create a discussions and follow-up questions with these as topics. **Estimated need of time is approximately 60 minutes.**

If it is possible to record the interviews, it would have been facilitating for the interpretation of collected data. Such recordings will only be used for interpretation.

**Interviewer:** Mattias Norling, student at University of Gävle  
mattias.norling@outlook.com

**Respondents:** CEO, R&D Manager, Quality Manager, Electronic engineer., Innovation strategist, Innovation technician, Laboratory assistant, Project leader, Business Unit Manager, Electronic Design Engineer.
**Interview questions:**

- How do you define innovation management within the organization?
  - What is innovation for organization?

- How do you experience today's methods of working with innovation?
  - What methods do you have?
  - Are there some issues with the way of working with innovation?

- How do you work with innovation in your everyday work?

- What role do you have in the innovation processes within the organization?

- Do you experience that the structure of the organization is appropriate for being as innovative as possible?
  - Structure that enables for creativity?

- How do you collaborate within the department/section?
  - Openness between functions and department?

- Do you have collaborations with external parties regarding innovation?
  - If not, do you believe that a collaboration would be necessary and successful?
  - What type of collaboration do you believe would be appropriate?