



CHALMERS

Implementing customer development in large established firms

A case study of a business model innovation project

*Master of Science Thesis
in the Management and Economics of Innovation Programme*

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Abstract

Innovation is of great importance for organizations' competitiveness. However, as firm sizes grow, companies get more inflexible and their ability to radically innovate decreases. The customer development framework could possibly remedy this. The aim of this thesis is to investigate the applicability of this startup methodology in the setting of a large established firm. This aim is accomplished by answering the research question: *What barriers do large established firms encounter when using the customer development framework?* Data is collected through a qualitative case study of a project in a large established firm, in which the authors have been active participants for several months.

Three implications to the customer development framework are identified as results from underlying barriers implied by the company's size, value chain position and structure. These implications are slow iterations, reduced adaptability and impaired learning from customers. The first implication derives from a complex structure with slow decisions and where authority is needed for decision-making. The second is a result of both external and internal inertia, where the former is primarily due to existing relationships in the value chain and the latter is because of unwillingness to look at new offerings in fear of jeopardizing the existing business. The third implication stems from difficulties to reach and contact potential customers, lack of time to conduct interviews, and fear of disclosure of sensitive information. To mitigate the mentioned issues and enhance the ability to follow the customer development framework, autonomous teams with great authority and accountability for the outcome of the projects might be needed. Moreover, an ambidextrous company structure and a regulatory framework that enable customer interaction can potentially improve the ability to follow the framework further.

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1 Introduction

This section acts as an introduction to the research study treated in this report. It provides a background to the subject in matter, and also gives a background of the project in which the authors have been involved. The last part of the section describes the purpose of the study and defines the research question.

1.1 Background of topic

Innovation has great importance for both economic growth and the success of organizations (Schumpeter, 2013; Tidd, Pavitt, & Bessant, 2005). According to Schumpeter (2013), innovation constitutes the foundation of competitiveness, and innovativeness is needed for organizations to not fail in the ongoing process of creative destruction. Actors who continuously provide novelty in their offerings and their deliveries are more likely to create and sustain competitive advantage (Tidd, Pavitt, & Bessant, 2005). However, the importance of innovation is not only associated with the challenge of creating value by innovation but also to capture the created value (Pisano & Teece, 2007).

Capturing value from innovations can be challenging (Pisano & Teece, 2007) in particular for established companies, which are built for efficiency and not innovation (Govindarajan & Trimble, 2010). Established firms often build core capabilities, which distinct them from their competition (Leonard-Barton, 1992). But, in times of change, these capabilities can simultaneously constitute a firm's core rigidities and hamper the possibility to innovate (Leonard-Barton, 1998). Thus, to capture an innovation's full value, changes to core capabilities might be required (Leonard-Barton, 1998) and a new business model might be needed (Chesbrough, 2010). However, the potential for conducting business model innovation in an established firm can be limited (Chesbrough, 2010). These limitations can occur due to conflicts with the already existing business model or the current model's supporting assets (Chesbrough, 2010), or due to a bad understanding of the business model (Johnson, Christensen, & Kagermann, 2008).

There is much uncertainty involved in the search for a new business model, which can be reduced by understanding who you are developing for (Blank & Dorf, 2012). Blank and Dorf (2012) have developed the customer development framework, which incorporates customers and users in the development process in order to develop offerings sought by the market. Customer development is a customer-centric and hypothesis-driven approach aiming at, by short iterations, learn and refine the business model to fit closely with customer wants and needs (Blank & Dorf, 2012). Blank and Dorf (2012) highlights this as a method for startups to develop scalable business models and it requires agility and flexibility in the organization in order to have the ability to adapt to customer wants. However, as firm size increases, the availability of resources usually grows while the organization loses agility and speed

in decision-making (Tidd, Pavitt, & Bessant, 2005). Nevertheless, as highlighted by March (1991), it is of great importance for organizations to both improve efficiency in regular operations and to engage in the exploration of new possibilities. Since this exploration of new possibilities is interlinked with uncertainty (March, 1991), it is interesting to investigate the applicability of the customer development framework as a tool to guide the exploration in a large established firm and also as an instrument to mitigate the risks and uncertainties.

1.2 Project background

In order to investigate barriers that large established firms may encounter when using the customer development framework, the authors of this report have taken part in a project at a large established company in which the framework was used. The project aimed to find a new scalable business model and was conducted through the guidance of the customer development framework. The project began in the spring of 2014 and involved employees at the company as well as researchers from a research institution. This research institution was the initiator of the project and proposed the project idea to the company. The company immediately showed interest and started to investigate which business unit that would be most suitable to conduct the project in. The product manager for the business unit in which the project later was conducted showed interest for the project early on and declared that the project addressed a topic that were of strategic importance for the future success of the business unit. The business unit and the research institution jointly designed the project and decided on the project objectives. In sum, the company showed willingness to conduct the project, saw strategic advantages of the project and was also able to adjust it to get a close fit with the business unit's overall objectives.

Further, the role of the researchers was to provide guidance on the customer development framework and observe the progress of the project. The authors of this report got engaged in the project in the middle of January 2015 and were involved until early May the same year. The authors took part in the activities relating to the project and observed the progress of it. All of the individuals involved in the project were familiar with Blank and Dorf's customer development framework at the project start and agreed to use it as the sole framework.

1.3 Purpose and research question

Blank and Dorf's (2012) concept of customer development is primarily developed as a method for startups in the search for scalable business models. Therefore, this study aims to explore the applicability of the framework in the setting of a large established firm by investigating if there are any barriers that prevent the company to follow the framework. This leads to the research question:

What barriers do large established firms encounter when using the customer development framework?

To collect data for this research, a case study in a large established firm that used customer development for one of their business development projects has been conducted.

2 Literature review

In the following chapter, literature relating to the studied subject is presented. The chapter aims to introduce the basics behind the concept of business modeling, customer development, and implications of firm size.

2.1 Business modeling

During the past decades, the business environment has become increasingly uncertain because of increased competition, increasingly rapid technological change and globalization (Osterwalder, 2004). Moreover, the development of information and communications technology has opened up for more complicated supply chains and collaboration between different actors, a larger amount of distribution channels, and access to new markets. This has increased the number of possible business configurations and forced companies to face more complex and difficult business decisions than ever before (Osterwalder, 2004). Still, tools that help creating structure in this tumultuous environment and facilitate business decisions have not kept pace with the development (Osterwalder, 2004). However, the concept of business models has grown more popular as a tool that can provide structure and understanding in today's complex reality.

A business model scrutinizes how a company creates and captures value from its operations (Chesbrough, 2010), and every company has a business model, either explicit or less articulated (Chesbrough, 2007; Teece, 2010). Different business models for the very same technology yield different results (Chesbrough, 2010). The technology in itself has no single value until it is brought to market with an underlying business model (Chesbrough, 2010). Furthermore, Chesbrough (2010) stresses the importance of using the right business model to get the best possible economic outcome of a new idea or technology. Therefore, it is important to have the capability of innovating a company's business model. However, new business models can be very difficult to achieve because there are several barriers to business model innovation (Chesbrough, 2010).

According to Chesbrough (2010), previous scholars have identified that resistance to business model experimentation is a significant barrier to business model innovation. The resistance is often grounded in a conflict between the proposed business model and the current model, where the proposed model interferes with the firm assets and might adversely affect the ongoing business (Chesbrough, 2010). Another similar reason is that the revenues from the proposed business model are frankly too low compared to the already established model. This could result in that the established model will be favored, and the proposed model will not be given sufficient attention (Chesbrough, 2010).

2.1.1 The business model canvas

Alexander Osterwalder and Yves Pigneur (2010) introduced the business model canvas as a tool for visualizing, assessing, and describing business models, which can

be used for business model innovation and the creation of new business models. The canvas consists of nine building blocks: customer segments, value proposition, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structure (Osterwalder & Pigneur, 2010). All together, these blocks comprises how an organization creates, delivers, and captures value.

2.2 Customer development framework

The customer development framework was developed as a method to be used within the field of business model innovation. The method focuses on learning about, and understanding, the market and the customers to be able to avoid developing products or services that the customers do not want. The method elucidates that the nature of startup companies cannot be equalized with the nature of existing and mature companies, but needs to be viewed from a different perspective. In the case of an existing company, the customers are usually known, the market is well defined, and the basis of competition is understood, which is usually not true for a startup company (Blank & Dorf, 2012). A startup is instead described as a temporary organization that is trying to find a repeatable and scalable business model (Blank & Dorf, 2012). These differences imply that startups should not be managed in the same way as mature companies. Instead, startups need to be flexible and search for viable business models by repeatedly test and evaluate hypotheses.

In the above mentioned search stage, the customer development method can be used to organize and structure the search. A vital aspect in this stage is that the firm and its processes are dynamic and easy to change rapidly. The search of the business model should not take place in the office, but outside of the office, where the potential customers are. This get out of the building mentality is fundamental in the creation of new business models and when starting new businesses (Furr & Ahlstrom, 2011). Furr and Ahlstrom (2011) draw parallels between the importance to get into the field and interact with customers and a farmer's need to work on the fields; in both cases, time spent in the fields are required to be able to harvest. This importance derives from the human brain's tendency to simplify the outside world in order to reassure us that we understand reality, which misleads us to believe that we understand the world and humans around us, when we in fact do not (Furr & Ahlstrom, 2011). According to Furr and Ahlstrom (2011), it is not enough to send any employee to take a close look at the real world, but it is very important that the key team members, such as founders, interact and talk to the customers. However, those are the people that are least likely to do so, oftentimes because they are confident that they already understand reality (Furr & Ahlstrom, 2011).

The first phase of customer development is called the customer discovery phase. In this phase, the founders have a vision regarding the product and its functionality, and are trying to find customers and a market for this vision (Blank, 2012). This is done through asking potential customers about the problem that the product will solve in order to find out if the potential customers perceive the problem to be critical enough

so that they are willing to pay to solve it. Also Furr and Ahlstrom (2011) highlight the need of making this clear before the business is taken to the next step, and expresses this by suggesting that the customers' monetizable pains should be clearly understood before beginning the next step. If there are customers that are willing to pay for the solution, the customer discovery phase goes into the second stage. In this second stage, the customers will be shown the product, and will be asked whether it will fulfill their needs. If the responses in any of the stages are not convincing enough, the visions and hypotheses should be pivoted.

Pivoting means that one or more of the hypotheses regarding components in the business model canvas are changed. Pivoting is a vital part of customer development and should be done in response to customer interactions. When making pivots in any of the nine building blocks of the business model canvas, the changes gets observable and new testable hypotheses are formed. For this to be useful, Blank and Dorf (2012) advocate that fast and continuous iteration is needed, and that every pivot is made in an attempt to find the most suitable business model. Pivoting can be tough and seen as a failure, but it should not, instead it is a lesson from customers and an opportunity to modify assumptions. (Blank & Dorf, 2012)

2.3 Implications of firm size

The customer development process is primarily developed to be used in scalable startups, but can also be valuable to use in a whole range of other company setups, such as small businesses, buyable startups, and large companies (Blank & Dorf, 2012). Since this report aims to address the framework's applicability in large established companies, it is valuable to highlight differences between startups and mature companies to find out what basic premises that separate them.

According to Blank and Dorf (2012), the difference between startups and mature firms lies in the business model, where startups are searching for a repeatable, profitable, and scalable business model whilst mature firms already have a valid business model. This means that startups are testing and evaluating hypotheses, and changes the business model accordingly, why it crassly can be said that they "go from failure to failure" (Blank & Dorf, 2012). In the case of mature companies, they know what will work, why failures are exceptions (Blank & Dorf, 2012).

Throughout the years, there have been many attempts to categorize companies into different stages of the organizational life cycle and describe the firm characteristics of each stage (Dodge, Fullerton & Robbins, 1994). However, according to Miller and Friesen (1984), five common life stages can be distinguished from previous literature: the birth phase, the growth phase, the maturity phase, the revival phase and the decline phase (Miller & Friesen, 1984). Firms that belong to the birth stage are often young, have simple and informal structures and are run by their owners (Miller & Friesen, 1984). Moreover, they are trying to find and establish a niche where they can

conduct business, why companies in this stage have similarities with Blank and Dorf's definition of a startup.

Firms in the growth phase are often larger than the ones in the birth phase, and they are growing rapidly, have established their competences, and have a more formal organizational structure (Miller & Friesen, 1984). In the maturity phase, the firms are even larger and older than in the growth phase, they have often adopted a more bureaucratic structure and are surrounded of a competitive environment, which demands efficient functioning (Miller & Friesen, 1984). The fourth stage is called the revival phase and is a phase where firms are divisionalized and differentiated because of a very heterogeneous environment (Miller & Friesen, 1984). The last stage is called the decline phase and describes a phase where firms are beginning to stagnate because of declining markets (Miller & Friesen, 1984).

The company in focus of this report is a large and established firm and can thereby be categorized as a company in the maturity phase. The size of the company in focus is in other words significantly different from the size of a startup company, and therefore has fundamentally different capabilities compared to a small firm. The firm size influence several different characteristics of a firm, and there are both positive and negative traits related to small as well as large firm sizes.

Great capability of reaching a state of economies of scale, better possibilities of acquiring market share, and possibility to exert bargaining power on both suppliers and customers are all examples of strategic advantages for large firms (Dean, Brown & Bamford, 1998). However, on the downside, it is found that large companies have more trouble innovating, lower ability to perceive and react to impending changes in emerging technologies, and are constrained by structural inertia (Dean, Brown & Bamford, 1998).

On the contrary, small firms often have simple structures and streamlined operations, which allows for quick reactions to environmental changes (Dean, Brown & Bamford, 1998). Furthermore, small firms often have faster decision speed compared to their larger counterparts (Tidd, Pavitt, & Bessant, 2005) and do not suffer from structural inertia (Dean, Brown & Bamford, 1998). Weaknesses related to small firms include difficulties to bring innovations to the market (Dean, Brown & Bamford, 1998) and that they often have more limited resources (Tidd, Pavitt, & Bessant, 2005). The mentioned traits that might prevent a large established firm from following the customer development framework are elaborated upon down below.

2.3.1 Structural inertia

Organizational inertia relates to internal organizational structures that make it difficult to implement internal changes, which in turn cause slow responses to upcoming threats and opportunities in a company's environment (Dean & Snell, 1991). There are several different sources of inertia, both internal and external. According to Dean

and Snell (1991), there is a relationship between size and internal inertia, where the inertia increases with size. Bureaucracy and long decision paths, which are related to large company sizes, slow down responses to changing conditions and thereby also increase inertia (Dean & Snell, 1991). Also Tushman and O'Reilly (1996), argue that companies develop inertia while they grow bigger and get older. This is because of the structures and systems that the companies develop to handle the increased complexity of the work that comes with a larger firm size (Tushman & O'Reilly, 1996).

Further, dependency is a source of external inertia (Dean & Snell, 1991). Dependency means that an organization is controlled, or affected, by another organization, such as parent corporations. It is found that companies that belong to parent corporations are less flexible and have less autonomy than independent companies (Dean & Snell, 1991). It is also found that such companies are constrained in their reactions to new technology (Dean & Snell, 1991). Furthermore, industrial networks, of which companies are parts of, creates an interdependency that can affect the potential for innovation (Sandström & Magnusson, 2010). Sandström and Magnusson (2010) illuminate how a single firm not only is dependent on its own decisions but also is affected by the network surrounding it. This because, relationships are built between actors in an industrial network over time (Håkansson & Ford, 2002). These relationships can help a company to cope with technological dependencies on other actors, but can at the same time be difficult to change (Håkansson & Ford, 2002) and therefore create rigidity. This because a change in a network not only affects the firm initiating a change, but also existing relationships and other companies in the network are affected (Håkansson & Ford, 2002). This implies that in order to change, a company is dependent on other actors' actions and approvals (Håkansson & Ford, 2002). Sandström and Magnusson (2010) familiarize how new entrants' lack of established networks might be an advantage for disruptive innovation as they are not affected by the same rigidities as established firms.

Moreover, the executives' and employees' attitudes toward organizational change may lead to inertia. It is found that companies which have experienced financial success are more likely to institutionalize the strategies and practices that led to the success and less likely to act on environmental changes (Chaganti & Sherman, 1998). A company will become increasingly internally focused and rely more on existing practices, the longer the company has been successful (Chaganti & Sherman, 1998). Tushman and O'Reilly (1996) express that cultural inertia derives from institutionalization of norms and practices underlying the success of a firm. In stable environments the organizational culture can contribute to a firm's success, but in times of change, the culture can hamper the ability to react (Tushman & O'Reilly, 1996).

2.3.2 Decision making

The nature in which entrepreneurs act and make decisions is different from where managers in large firms are operating (Busenitz & Barney, 1997). Entrepreneurs in startups generally face more uncertainty than their counterparts in large firms (Busenitz & Barney, 1997). The managers in large firms often have historical data to support their decisions, while entrepreneurs make decisions with less or no data to support them (Busenitz & Barney, 1997).

Furthermore, as companies grow large, they develop procedures and policies that guide managers in decision making (Busenitz & Barney, 1997). Nelson and Winter (2002) refers to procedures and policies as routines and expresses how routines established in the past can affect a company in the future. Changes to these routines might be challenging for several reasons, namely because of resistance to change, the cost of learning new routines, and because of potential emerging conflicts (Nelson & Winter, 2002). Moreover, large firms often develop structures with defined areas of responsibility, which reduces the uncertainty in decisions (Busenitz & Barney, 1997). On the contrary, entrepreneurs are more opportunistic and can develop ideas based on limited information (Busenitz & Barney, 1997).

2.3.3 Performance metrics

The use of indicators of business performance is seen as important in order to stay competitive. In the past, it has been common to mainly use financial performance indicators, but this financial focus has been criticized in recent years (Nørreklit, 2000). Criticism deem that financial metrics only tell what has already been and do not provide information on what financial performance the future will bring (Nørreklit, 2000). Furthermore, financial performance metrics may force companies to focus on short-term results and not act in response to the companies' long-term success (Nørreklit, 2000). Therefore, the performance indicators should preferably consist of a combination of financial and operational performance measurements (Kaplan & Norton, 1992).

However, according to Blank and Dorf (2012), startups and mature firms should not use the same type of performance measurements. Blank and Dorf (2012) argue that popular metrics such as cash flow forecasts and line-of-business analyses are not useful in startups, but only metrics that track the progress of the pursuit of finding a scalable business model should be used. This means that the process of converting guesses and hypotheses into facts should be tracked (Blank & Dorf, 2012). However, some financial metrics are valuable to track also in a startup environment, such as cash-burn rate and number of months' worth of cash left in the bank (Blanks & Dorf, 2012).

2.4 Ambidextrous organizations

According to Tushman and O'Reilly (1996), firms need to be able to manage both incremental and revolutionary change in order to stay competitive and flourish over

time. Firms need to pursue incremental innovations to create more value for their customers and to be able to operate more efficiently (O'Reilly & Tushman, 2004), and thus increase their competitiveness. However, firms also need to cope with discontinuous innovations in times of environmental shifts and revolutionary change. Therefore, firms need organizational structures that allow for both types of innovations.

Revolutionary change and changes in the environment are for example driven by technology, competitors, regulatory events, or changes in the economical or the political conditions (Tushman & O'Reilly, 1996). Firms that try to adapt to such discontinuities through incremental innovations are unlikely to succeed (Tushman & O'Reilly, 1996), but must instead pursue radical innovations. This put high demands on the organization, which needs to have a design and management practices that allow for both types of innovation.

According to O'Reilly and Tushman (2004), firms that have been successful in both exploiting the present and exploring the future share some organizational similarities. The similarities are that the firms have separated exploratory and exploitative units, which allows for different processes, structures and cultures in the different units (O'Reilly & Tushman, 2004). However, these firms still have tight links across the units at the senior executive level (O'Reilly & Tushman, 2004). This means that the firms have separated organizations for different types of innovation that are tightly connected through the senior team (O'Reilly & Tushman, 2004). This allows for sharing of resources such as expertise, talent and funds, but allow at the same time the different units to create conditions for success and focus their attention on their own objectives (O'Reilly & Tushman, 2004). O'Reilly and Tushman (2004) call firms that have such organizational structure for ambidextrous organizations.

2.4.1 Teams in organizations

In a world that is rapidly changing and competition is heavily innovation-driven, teams have a more important role in organizations than ever before (Ancona, & Bresman, 2013). Teams are now taking on a wider set of responsibilities than previously (Ancona & Caldwell, 1998). This might be a result of a more distributed leadership, with less hierarchy and more widespread leadership down in the organization, which has become the new structure within many companies (Ancona, & Bresman, 2013). In this new kind of organization, teams have become more important, putting detail and linking their actions to the firm's strategy (Ancona, & Bresman, 2013). Ancona and Bresman (2013) express a need for cross-functional teams, implying diversity in expertise, in order for the firm to understand the rapid changes in technology and the marketplace.

Teams can be structured in many different ways, and range from functional to autonomous (Wheelwright & Clark, 1992). A functional structure means that the team often is formed within one functional area. This kind of team is often seen in large

and mature organizations (Wheelwright & Clark, 1992). At the other end of the range is the autonomous team, which incorporates members from different functional areas and the members are usually co-located to the team (Wheelwright & Clark, 1992). A major difference between these types of teams is that autonomous teams usually are less restricted by the rest of the organization and are allowed to build their own structure and is fully accountable for the outcome of the projects (Wheelwright & Clark, 1992).

There are not only different team structures but also different types of memberships. Members can be partially engaged in a project or working full-time in a single project (Govindarajan & Trimble, 2010). The latter has the benefit of the member being fully focused on the project and its outcome, while the project competes for the member's engagement against other commitments in the former (Govindarajan & Trimble, 2010). Getting the full engagement from a part-time member can be particularly difficult for development projects if the other commitments concern regular operations (Govindarajan & Trimble, 2010).

3 Research methodology

This section introduces the research methodology used for conducting the study. The section starts with assessing the research strategy, which leads to the selected research design. Following the section about the research design is a description of the research methods used for collecting data. Further, there is a section describing how the collected data is analyzed, after which a concluding section regarding the reliability and validity of the conducted study is presented.

3.1 Research strategy

By making a distinction between quantitative and qualitative research, two different clusters of research strategy are formed (Bryman & Bell, 2011). For this study, a qualitative study was deemed as the most suitable approach to answer the study's research question. A qualitative study is usually of an inductive character where theories are the outcome of the research (Bryman & Bell, 2011). Thus, a qualitative approach was considered to be well aligned with the research question's inductive nature, as the research aims at building theories of what barriers there are for large established firms to use customer development

3.2 Research design

A framework for how to collect and analyze data is provided by selecting an appropriate research design (Bryman & Bell, 2011). This study's research question is treated as both exploratory and explanatory as it assesses both what barriers exist, and why they do exist. Yin (2002) familiarize that a case study approach is useful to answer both these kinds of question. Thus, a case study design was recognized as a suitable research design. The study includes a thorough and detailed analysis of a single case and Yin (2002) expresses that a case study is an empirical study, which can be utilized when contextual conditions are believed to be particularly relevant for the investigated phenomenon. Therefore, a case study was selected to investigate how the context of a large established firm can entail barriers to apply customer development.

Throughout the case study, the authors were active participants in a project team, which addressed problems and collaborated to find solutions. Thus, the relationship between the researchers and research subjects can be seen as an action research. According to Bryman and Bell (2011), action research is particularly useful when investigating change and learning processes in organizations. Therefore, the action research approach was identified as a suitable relationship to the studied case, since the customer development methodology was a new way of working for the organization, which implies that learning and change from regular processes was required.

The studied organization was deemed suitable for a case study since there was an ongoing development project utilizing the customer development framework. For the development project, a research institution supported the selected organization with

information and knowledge regarding the customer development framework. Furthermore, the studied organization has been in operation for more than 50 years and has a global presence with more than 10000 employees. Thus, the organization was identified as both large and established. Moreover, their openness to try customer development made it a suitable case in order to investigate this startup framework in a large established firm.

However, deciding on a certain research design does not provide data, which is denoted by Bryman and Bell (2011), but to collect data, research methods are needed. It is important to differentiate research design from research methods since the former provides a structure for the execution of the latter, which in turn can be related to several kinds of research designs (Bryman & Bell, 2011).

3.3 Data collection

Research methods are needed to collect data and the chosen research design guides the data collection (Bryman & Bell, 2011). This research is based on a case study, which allowed the usage of participant-observation, interviews and documents as methods to collect data (Yin, 2002). By using these different methods, both ‘active’ and ‘passive’ data could be acquired. Passive data, such as interviews, is found by search, while active data is associated with discovery (Dubois & Gadde, 2002). Active data can be collected by observations and may not be found by search (Dubois & Gadde, 2002). The use of the different data collection methods will be further described in the following paragraphs.

3.3.1 Participant-observation

Participant-observation was used to get a rich understanding and allowed the researchers to observe behaviors and get findings that are not apparent in interviews (Bryman & Bell, 2011). According to Bryman and Bell (2011), an advantage of participant-observation is that it gives an opportunity to learn the native language of an organization, which is an important factor for learning the specific culture of the studied subject. Yin (2002) identifies that the possibility to engage in participant-observation might give access to events that are difficult to access using other methods. The method also allows researchers to study members in their natural environment and data can be gathered through observing behavior, listen to and engage in discussions, and ask questions (Bryman & Bell, 2011). This research method was used in the case study in order to observe behaviors and monitor any deviations from the customer development framework and challenges in the project. The observations that were made were written down and gathered in a diary. In this diary, the observations were ordered by the time of occurrence, which allowed the authors to get a broad picture of the project’s progress and gave access to previous observations.

3.3.2 Interviews

In qualitative research, interviews are an extensively used method (Bryman & Bell, 2011). Yin (2002) refers to interviews as one of the most important sources of

information in case studies. The type of interviews that were used during this qualitative study was unstructured interviews. This type of interview has similarities with conversations (Bryman & Bell, 2011) and was conducted with team members and employees of the case study organization. In connection with the interviews, notes were taken and the authors discussed the findings immediately afterwards to relate them with previous observations. The use of this type of interview enabled the researchers to capture the interviewees' personal reflections and understandings, for example directly after a meeting or presentation of data.

3.3.3 Documents

The documents used in this research were internal documents usually comprising presentation files and spread sheets. The fact that the used documents were produced for informative and actionable purposes and not for business research is seen by Bryman and Bell (2011) as an advantage of documents. This since they are non-reactive, i.e. not adapted to suit research, which increases the validity of the data (Bryman & Bell, 2011). Because of the internal and confidential nature of most of the documents that were assessed during the study, the data therein has been used for building a better understanding of the organization and its processes.

3.4 Data analysis

The data analysis is one of the most vital parts of producing theory from case studies (Eisenhardt, 1989). Qualitative research with data stemming from a variety of sources often adds up to large volumes of data, which because of the lack of well-established processes for analysis can be difficult to analyze (Bryman & Bell, 2011; Eisenhardt, 1989). For the purpose of this study, the analysis and the data collection was conducted in parallel. Thus, observations and findings were analyzed throughout the whole period of which the study was running, which is a feature of qualitative research (Bryman & Bell, 2011).

To continuously shift between analysis and data collection allows the researchers to adjust the data collection and provides the possibility to investigate certain findings further (Eisenhardt, 1989). Throughout the course of this study, data was continuously gathered and constantly discussed between the authors of this report. These discussions allowed the authors to share and interpret their observations and experiences with each other, and also relate them to previous literature. There was always an underlying strive for finding emerging themes in what was being observed. Oftentimes, these themes resulted in theories, which are presented in the empirical results' section below, and the iterative process between analysis and collection made it possible to search for further verification of every theme once they were explicated.

3.5 Reliability and validity

Reliability and validity are important considerations to judge the quality of a study (Bryman & Bell, 2011). Reliability is concerned with whether the findings from a study are repeatable or not (Bryman & Bell, 2011; LeCompte & Goetz, 1982). Two

types of reliability that can be considered for qualitative research are: external and internal reliability (Bryman & Bell, 2011). The former concern the extent to which a study can be replicated by independent researchers while the latter refers to whether multiple observers in the same research agree upon the observations (LeCompte & Goetz, 1982).

The nature of qualitative research and the included research methods usually makes it hard to replicate the study and this affects the external reliability (Bryman & Bell, 2011). Regarding this research, the external reliability is deemed low due to that it is a single case study conducted on an anonymous organization. Further, the social role of the researchers within the studied organization would need to be replicated by another researcher to generate comparable results (LeCompte & Goetz, 1982) and doing this is deemed to be difficult.

However, the internal reliability for this research is considered to be relatively high since the researchers have been working closely together to collect and analyze data from a single site, and not collected data from several sites. This since LeCompte and Goetz (1982) argue that internal reliability is more challenging for studies being conducted at several sites. Furthermore, by continuously reflect upon, and discuss, observations, the researchers helped each other to build a mutual understanding of their experiences, i.e. reaching a higher level of internal reliability.

The study's validity, which concerns the accuracy of the results (LeCompte & Goetz, 1982), is also considered. Similar to the reliability of a study, the validity can be both internal and external (Yin, 2002; LeCompte & Goetz, 1982). Internal validity concerns whether the scientific observations matches reality, while the external validity treats the degree to which the results can be generalized to other social settings (LeCompte & Goetz, 1982).

The internal validity is often one of the strengths in qualitative research, since researchers usually engage with the subjects and the social setting for a long period of time (Bryman & Bell, 2011), which allows continuous analysis and refinement to match concepts with observations (LeCompte & Goetz, 1982). Assessing the internal validity for this research, it can be deemed to be relatively high. The researchers have been closely engaged with the customer development work that has been conducted at the organization and thus been able to observe most of the problems occurring.

Further, the external validity is often a problem for qualitative research (Bryman & Bell, 2011) and is deemed quite low for this research since the study is conducted on a single organization, which makes the sample size very small. However, this research is not aimed at generating statistical generalization but to build theories from a particular case. Thus, it is important to understand that the findings might be specific for the studied organization, even though some of the findings potentially could be applicable to other companies as well.

4 Empirical results

Throughout the course of the project, several findings have been made in relation to the studied company's ability to conduct business model innovation using the customer development framework. The findings elaborated in this section are external, internal and project specific, and cover barriers observed causing long cycle times, low flexibility as well as difficulties to interact with users. Below, the empirical findings of the study are presented.

4.1 Long cycle times – slow iterations

Long processes and slow transitions between different stages of the project led to long cycle times between iterations and pivots. Each step and process in the customer development framework, such as data collection and the formation of hypotheses, was perceived to take excessive long time due to several different reasons. These underlying reasons are presented down below.

4.1.1 Long decision paths

Lack of authority and autonomy within the project team led to waiting times in between different stages of the project. Because of the project team's lack of authority, influential people had to be involved on a regular basis for decision-making. This in combination with the influential peoples' busy schedules, which is further described down below, led to enforced waiting times in between the iterations and pivots. This barrier related to long decision paths is on company level and therefore considered to be an internal barrier.

When a decision regarding proceeding to the next step in the customer development framework or not had to be made, collected data and other information were discussed within the project team. In these discussions, the project manager acted as a moderator. However, this group of people did not have the authority to form the final decision, but the project manager's supervisor had to be briefed about the information that came up in the meeting and be given the opportunity to leave any comments before the final decision could be made, which led to long cycle times.

Decisions regarding steps that needed extra funds had to be made even further up in the hierarchy. These types of decisions exceeded the authority level of the project manager's supervisor. In order to get a decision regarding funding, a presentation summarizing the project had to be made. This presentation would then be shown for some of the business unit's executives and potentially result in a decision. The presentation got postponed due to other commitments of the project manager and was not given during the authors' time with the company.

4.1.2 Low project priority

Other commitments and obligations on the project team's agenda, and a low sense of urgency for the project slowed the progress of the project. The project was launched on top of the project members' regular commitments, which led to a prioritization of

regular operations and forced out the project in the periphery, which led to postponed tasks and delayed decisions. Since this barrier is closely tied to the project itself, it is considered to be a project specific barrier.

During the course of the project, the project manager registered the number of hours that were spent on activities relating to the project. All employees involved in the project counted their hours and reported the numbers to the project manager, who later summarized the hours. These numbers shows that the project manager spent well below ten percent of the working hours on average on the project, and that the other employees involved in the project spent less time than this. The reason that not more time was spent on the project was not because of personal unwillingness to spend time, but was because of the project's low priority and the employees' other obligations.

This relatively low percentage of time spent on the project led to longer processes than planned, postponed meetings, and delayed decisions. Also a low sense of urgency for the project seemed to be a reason for delays because deadlines in other commitments were prioritized. Before the authors got involved, planned customer interviews were delayed several weeks, much due to an upcoming product introduction at another business unit, which would affect the studied business unit's product portfolio as well. This delay, in combination with the outcome of the customer interviews, led to a revamp of the project and the core product group was changed. As a result, the initial plan for the project was changed.

4.1.3 Low availability of stakeholders

Information dissemination was mainly conducted through formal meetings with project stakeholders, which oftentimes took place further into the future than desired because of the stakeholders' low availability, and hence slowed down the progress. At the studied company, formal meetings were held on a regular basis and were used to share information, report findings, and to decide on how to move forward. This facilitated the dissemination of information among the stakeholders, who often were from different business units. However, difficulties to schedule these meetings led to long cycle times because there was no earmarked time for the meetings. Thus, a common free space had to be found in the attendees' schedules, which oftentimes forced the meetings to take place further into the future than desired. The result was a slow down in the iterative development work. This barrier concerns the company culture and the structure of the company, and is thereby considered to be an internal barrier.

The difficulties became more apparent the more people that were invited to the meetings, and the most notable occurrence of this type of lag happened in the beginning of the project when people from several business units were involved. At this stage of the project, employees who potentially could be affected by the scope of the project were invited to both provide and receive information. The high number of

invited people led to postponed meetings and lengthy meetings once they were held. Once this issue was realized, fewer people got invited to the meetings to quicken the process.

Also after reducing the number of people in the meetings, the availability of influential people was a bottleneck for the progress of the project. Already in an early phase, when the authors got engaged with the studied research project, the concern about availability of certain individuals was raised. Many times, the project manager's supervisor attendance in meetings was necessary to make decisions. The supervisor's managerial level implied sub-ordinates reporting to him, and he in turn reported to the next level of managers. Much of the supervisor's time was dedicated to keep daily operations running and he was said to be fully booked with meetings for about two weeks into the future. Therefore, the lack of the supervisor's availability postponed decision making in the project.

4.2 Reduced flexibility – reduced adaptability

During the course of the project, the proposed business models were evaluated and modified on an ongoing basis to better suit the customers' preferences and increase the chances of reaching success. However, constraints to how the model could be changed were observed. These limitations are further described down below.

4.2.1 Existing relationships

Both upstream and downstream relationships are important for the studied company, but have at the same time proved to be a limiting factor for business model innovation due to reduced flexibility. Throughout the studied company's more than 50 years in business, it has built relationships with suppliers, partners, and retailers. These relationships are of different character, where some are close, and other are of a more distant nature. For example, the company has a close relationship with the coordinated network of retailers that sell the studied company's products. This relationship has been built over several decades and is considered valuable for both parties. However, because of the closeness and extensive cooperation, tacit understandings have been formed. These understandings hamper the studied company from finding and using new sales channels, thereby reducing the flexibility in the design process of new business models.

In the early mock-ups of business model canvases, the existing network of retailers was given a granted role in the new models without any further reflection of its suitability of being in these proposed models. The network of retailers was given an unquestioned place in the *key partners* building block in the business model canvas, and it was said that this network of retailers had to be a part of the new business model and that they were to be given the current margins. A result of keeping some of the key partners static was that other building blocks of the business model canvas stayed static as well. For example, because the network of retailers stayed static, also the ways to reach customers remained static. The retailers had to be kept because of

organizational politics, where the company did not want to endanger the current relationship with the retailers, which also meant that the retail network could not be expanded. The fact that the retailers had to be untouched was mentioned repeatedly during the course of the project by both the project manager and his supervisor. This unwillingness to give up or change partners to collaborate with, led to reduced opportunities to propose new and unique solutions to customer problems since it meant that the company had limitations when designing the value chain. Since this barrier goes beyond the company sphere, it is considered to be an external barrier.

4.2.2 Core business lock-in

In the studied company, few attempts were made to leave the beaten path and the core business when searching for new business models, which resulted in inflexibility in the formulation of new business models. When hypotheses regarding the value proposition were formed, they most often originated from the company's current product portfolio and offerings. Also when brainstorming after a pivot, the company only considered products and services closely related to its core business. Therefore, the company was rather inflexible in the pursuit of finding a scalable business model and showed unwillingness to find solutions outside of the current business area. Since this barrier relates to the company culture and attitude, it is considered to be an internal barrier.

The unwillingness to deviate from the core business was exemplified by the use of the current product catalog when brainstorming in the pursuit of finding a new business model. However, on the second product pivot, a product currently under development was chosen, implying some flexibility, but this product was still closely related to the core business since it was a new version of an already existing product.

At the same time as the company tried to stay on the beaten path product wise, it avoided to jeopardize currently profitable business areas by simply leaving them out of the discussion. Throughout the course of the project, major pivots were made two times. For every pivot, a different product was chosen to be the base of a new business model. During the first screening of potential product groups, one specific group was identified to have the greatest potential as the base of a new business model. However, because of this product group's monetary importance to the business unit, it was decided that any changes or actions that would interfere with this group should be avoided. Hence, this product group was not considered in any of the major pivots.

4.3 Difficulties to contact potential customers – impaired learning

From what have been observed in the studied company, there are several barriers hindering development teams to learn from, and interact with, customers. Three such reasons are elaborated down below.

4.3.1 Other commitments

The employees working with the project did not have enough time to get out of the office and meet with customers due to other obligations to keep day-to-day operations running. The daily operations in the studied company was prioritized, which led to that time were spent on the project only if there were gaps in project members' schedules. Since this barrier relates to the setup of the project, it is considered to be a project specific barrier. A consequence of the time constraint was that what was considered the most time efficient ways were used to search for and contact potential customers. This implied that potential customers and also interviewees were searched for from within the company itself. This was done because of the ease and convenience to initiate contact, setup meetings and conduct interviews with people located in the same area and who also could be found in the company wide book of contacts. The advantage of this approach was speedier processes, but it also resulted in a deviation from the specified customer segments.

4.3.2 Difficulties to find and contact end consumers

The employees in charge of finding and interviewing potential customers encountered problems when trying to get contact information to, and reach, potential customers. When hypotheses regarding the customer segments were done, it was known which persons that would be interesting to conduct interviews with, and therefore also which persons that it would be valuable to initiate contact with. However, the employees responsible for finding and initiating contact with potential customers from the defined segment had trouble getting in touch with this segment. This happened even though the users they wanted to reach were a certain set of end consumers of the company's products. Since this barrier relates to the company's position in the value chain, it is considered to be an external barrier.

The difficulties in finding interviewees led to that the interviews that later were carried out were conducted with people with different attributes than defined in the customer segment hypothesis. The most prominent reason of the difficulties to find and reach potential customers was that no employee within the project group had access to customer files and was not able to get such access either.

4.3.3 Reputation and leakage of information

Early when the authors got engaged with the project, a resistance towards bringing information outside of the company could be observed. Interacting with customers was perceived as a risk due to the possibility of leaking sensitive information. There were several reasons observed to the fear of leaking information. One of them was observed through the resistance to mention the company name while conducting interviews with customers since this potentially could damage the brand. Another was the fear of leaking information about development projects with the risk of affecting existing business and relationships.

Furthermore, all employees at the company have to sign non-disclosure agreements. This type of document implies that no information concerning the company that is not already public can be forwarded to an external party. In reality, this means that no information regarding for example future products can be disclosed, which creates obstacles for conducting customer development. This barrier that prevents the employees from interacting with potential customers relates to company specific regulations, why it is considered to be an internal barrier.

5 Discussion

In this section, the findings described in the previous chapter are connected with the theoretical framework and implications are drawn. Also, the barriers observed when using the customer development framework are discussed.

5.1 Long cycle times – slow iterations

In the conducted case study, it was observed that the project was suffering from long cycle times, which oppose the fundamental philosophy of the customer development framework. Excessive time was consumed both within the different steps in the framework and in-between the steps. The excessive cycle times primarily emerged because of long decision paths, low project priority and low availability of stakeholders, which implications are discussed down below.

5.1.1 Long decision paths

In the studied project, it was observed that the core project team collected and analyzed information that would serve as decision support. However, this core team did not have the authority to make decisions whether to proceed to the next step in the customer development framework or not, because these decisions had to be made with the presence of a manager not belonging to the core project team. This need for approvals from several instances leads according to Baum and Wally (2003) to slow decision speeds and comes with formalized organization structures. Also Dean and Snell (1991) argue that this type of formalized structure that is characterized by long decision paths and bureaucracy slows down decisions and thereby also the company's ability to respond to changing conditions in its environment. According to Dean, Brown and Bamford (1998), this slow response is related to structural inertia, which in turn is related to large firm sizes. This implies that the observed long decision paths and slow decision making is related to the formalized organizational structure often seen in large firms. The observed slow decision speeds forced the project to idle in between the steps in the customer development framework, which in turn led to long cycle times in general.

5.1.2 Low project priority

The long cycle times were also a result of low prioritization of the project, which partly stem from the project team members' accountability in other processes and tasks with clearer and more stringent objectives. According to Govindarajan and Trimble (2010), this competition for resources between running operations and innovative initiatives is not uncommon and becomes particularly evident when a project team only consists of part-time members, which was the case in the studied project. To get better engagement in innovation projects, and thereby hopefully also faster cycle times, a team consisting of full-time members might be needed. This since Blank and Dorf (2012) argues that customer development is challenging and requires time, and "is a full-time, full-body-contact sport" (Blank & Dorf, 2012. pp. 178).

Also defined project objectives regarding time are important in order to achieve quick cycle times. Startups are often forced to have short cycle times and quick iterations because of the limited capital available (Blank and Dorf, 2012). Thus, the focus on the time objective is inherent. On the contrary, established companies that have a financially successful core business do not have the same inherent urgency in customer development projects. However, according to Blank and Dorf (2012), the customer development should still be conducted in a quick and rapid way, which means that clear guidelines on time objectives should be defined. When focusing on time performance, the completion of the project according to schedule is prioritized (Maylor, 2010). In order to reach such objectives, Munns and Bjeirmi (1996), argues that the support from the organization in which a project is carried out is vital. The organization needs to provide sufficient resources and provide necessary support to be able to manage the project properly and reach the goals (Munns and Bjeirmi, 1996). This means that established companies, with successful core businesses, need clear time objectives when conducting customer development and sufficient support from the parent organization to be able to achieve the stated objectives, for example regarding quick cycle times.

5.1.3 Low availability of stakeholders

An inclusive meeting culture, where representatives from several business units were invited to meetings, was identified at the studied company. This was due to the willingness to gather specialist knowledge from different parts of the company that could contribute to the project. This strategy to involve many units when conducting business model innovation is consistent with Littler and Sweeting's (1985) claim that innovations demand cooperation between various functional units. The strategy is also consistent with Ancona and Bresman's (2013) statement that critical knowledge regarding for example customers, markets and demands exists at an operational level, why it is beneficial to gather people from dispersed parts of the company to take part in innovation activities. However, since all business units other than the unit in which the project took place did not have any dedicated resources to, or stake in, the project, it was difficult to manage the collaboration between the different units. This lack of dedicated resources resulted in difficulties to plan meetings, since time had to be found on top of the attendees' regular work, which all in all made the inclusive meeting culture a contributor to the long cycle times.

5.2 Reduced flexibility – reduced adaptability

To be able to adapt to customers' preferences, customer development requires an organization that can work with a dynamic business model (Blank & Dorf, 2012). However, throughout the study it was observed how both external and internal barriers affected the studied company's ability to change blocks in the business model canvas. These barriers are discussed in this section, which starts with a discussion about existing relationships and is then followed by a discussion about core business lock-in.

5.2.1 Existing relationships

Partners and suppliers can be of instrumental value for both startups and mature companies. They provide goods or services that startups and mature firms cannot, or do not want to, produce or develop themselves. Thus, key partnerships are important pieces of the final solution of the customer problem, which also is illuminated by being one of the nine building blocks constituting a business model according to Osterwalder and Pigneur's (2010) business model canvas.

Startups usually have few or no existing relationships with partners, while mature companies often have many. Existing relationships can be advantageous, where durable relationships with suppliers for example can reduce transaction costs (Walter et al, 2003). However, existing relationships may also mean reduced flexibility because of contracts and agreements, which is the case in the studied company.

According to Blank and Dorf (2012), the search for a scalable business model should be an iterative process where the business model is adjusted according to the findings provided when interacting with customers. In the studied company, these adjustments had some restrictions. Even if the customer interviews indicated that the potential customers prefer other sales channels than the proposed, the company had severe difficulties to change these, because of the mentioned relation to the network of retailers.

These restrictions may not only prevent the company from providing what the customers want, but also prevent the company from adapting to changes in the environment. According to Dean and Snell (1991), this type of dependency on other organizations creates an inertia that affects the company's ability to innovate and thus affects its ability to react on changes. This inability is especially a disadvantage for large and mature firms since they often are surrounded by a competitive environment and thus need to react quickly on changes to avoid being outperformed (Miller & Friesen, 1984). However, close collaboration between suppliers and retailers for example can improve the suppliers' economic performance (Corsten & Kumar, 2005). Therefore, it is needed to weigh the advantages with a close relationship against the disadvantages, and find the most beneficial way for the specific company.

5.2.2 Core business lock-in

In the result section, it is described how the company is trying to follow the beaten track and avoid too radical changes when working with business model innovation. The formulation of new business models in the studied company was limited to only involve fields directly or indirectly relating to the company's core business. This unwillingness to explore unknown grounds is according to Chaganti and Sherman (1998) typical for companies that have enjoyed financial success; it is simply hard to find good enough reasons to deviate from the beaten and successful track. The longer the success has been, the more focused on core business the company risks to become (Chaganti & Sherman, 1998). This pursuit to continue with the ongoing operations

and to avoid too big changes is according to Govindarajan and Trimble (2010) because organizations are striving for reliable profits, which comes with productivity and efficient operations. In other words, organizations are designed for ongoing operations and not innovation (Govindarajan & Trimble, 2010). This internal and regressive focus is disadvantageous for business model innovation.

When searching for a scalable business model, the ability to be agile and flexible is a great advantage. This includes being open-minded and let iterations bring the business towards the field with the highest potential, even if the final area of business markedly differs from the initial plan. This could mean going into totally new territories, but could also mean focusing on underlying processes of the value proposition instead of the key proposition. Brown (2008) argues that new business opportunities are born through a combination of a holistic mindset, a focus on consumer needs and an understanding of what is technologically feasible. Teams and the involved members are important for innovation, and especially their personalities are essential for value creation. It is beneficial if the employees conducting innovation activities have an integrative thinking and ability to see all aspects of a problem, and also have a curious personality that leads them to explore constraints in creative ways (Brown, 2008). This will steer the innovation activities into entirely new directions and possibly lead to novel and valuable solutions to customer problems.

5.3 Difficulties to contact potential customers – impaired learning

A vital part of the customer development framework is early interactions with customers. Blank and Dorf (2012) stress the importance of getting out of the office to learn from customers and then utilize the learning in the development of new offerings. However, as disclosed in the previous chapter, there were some barriers for the studied company to get out of the office and learn from customers, which are further elaborated upon down below.

5.3.1 Other commitments

In the studied company, it was found that the customer development project was down prioritized in favor of regular operations. However, the project continuously needed to reach progress since there was an objective to finish it within a certain timeframe. This forced the project team to conduct the customer development processes in the most time efficient ways, which resulted in unreliable results since convenience sampling was used when conducting customer interviews. According to Maylor (2010), this correlation between little time spent and reduced quality is inherent to project management. There is a trade-off between time, cost and quality, where focus on short project time either results in reduced quality of the outcome of the project, or increased costs of the project because more resources are needed (Maylor, 2010).

In order to reach both a satisfactory outcome and project duration, Munns and Bjeirmi (1996), argues that the support from the organization in which a project is carried out

is vital. The organization needs to provide sufficient resources and provide necessary support to be able to manage the project properly and reach the project goals (Munns and Bjeirmi, 1996). If such support is provided, the project team should have the resources to conduct the customer development philosophy in a proper way and conduct customer interviews that will guide the project in the right direction.

5.3.2 Difficulties to find and contact end consumers

In the studied project, the team members encountered difficulties to find access to the specified customer segment, which obstructed the interaction with potential customers. The team members wanted to discuss, interact and conduct extensive interviews with interesting potential customers in a relatively specific field. According to Flick (2009), it might be problematic to both find and get access to people for such qualitative interviews. Furthermore, since the team members wanted to interact with the potential customers on a rather close basis, the customers' willingness to participate is also an issue that can obstruct the collection of data (Flick, 2009). This shows that it is proven to be difficult to contact and get access to interviewees for qualitative interviews when a narrow segment is chosen, why the struggles that the project team encountered are not uncommon. However, since the potential customers the project team wanted to reach were a certain set of end consumers of the company's products, the difficulties were expected to be of a lower magnitude.

The difficulties occurred because the end consumer files were held by separate organizations, which mean that the relationship with these organizations determines the access to the customer files. According to Håkansson and Ford (2002), a company in a network is always dependent on the approval and actions of others in the network, why relationships between the parties determine what can be accomplished. This is consistent with the situation in the studied company since the company did not have the absolute power to control the customer files, but had to negotiate with others in the network. However, in a relationship, the parties can both influence and be influenced (Håkansson & Ford, 2002), which means that the studied company should be able to influence the situation regarding customer files and act for an improved ability to find and reach customers.

5.3.3 Reputation and leakage of information

Leakage and disclosure of sensitive information was observed to be a barrier that prevented the studied company from interaction with potential customers. The company was afraid that interactions with customers and disclosure of new products and business models would harm the company. This was an issue because the disclosure of information regarding new offerings is a keystone in the customer development framework (Blank and Dorf, 2012). However, there are arguably both advantages and disadvantages with information sharing. According to Hoecht and Trott (2006), information sharing in R&D activities is a key success factor and aids the sustaining and gaining of competitive advantage. At the same time, information

sharing may harm the company because of leakage of knowledge and technologies (Hoecht & Trott, 2006). This means that the company should be careful with what type of information that is disclosed and with whom it is shared, however, important to emphasize is that rigid prevention of information sharing has high opportunity costs in R&D contexts (Hoecht & Trott, 2006).

6 Conclusion

This master's thesis was set out to investigate the applicability of a startup methodology in the setting of a large established firm and this was done by addressing the research question; *What barriers do large established firms encounter when using the customer development framework?* Throughout the course of the conducted case study, several barriers to use customer development in large established firms were identified. All the identified barriers could be related to three important aspects of customer development, namely quick iterations, adaptable business model, and getting out of the office to meet customers.

First, a major barrier to quick iterations is long cycle times. The long cycle times derive from established firms' long decision-paths and need for authority, which cause slow decision-making. Also, prioritization of regular operations instigates slow progress in development projects. To overcome these barriers, a team formation with more autonomy than the one used in the studied project might be needed. According to Wheelwright and Clark (1992), an autonomous team has a high degree of responsibility and control, is fully accountable for the outcome of the project and is allowed to build its own structure to facilitate the progress towards the project objective. This team formation has the benefit of being focused, why projects relating to new product and new process development can be carried out in an efficient way (Wheelwright & Clark, 1992). Therefore, the need for external authority would be reduced in such formation and the progress of the project would be in sole focus, which would reduce the process times both within the different steps in the customer development framework and in-between the steps.

Second, the flexibility in business model innovation is hampered by established firms' existing relationships in the value chain and reluctance to radical changes that may interfere with the core business. To overcome the mental lock-ins and difficulties to deviate from the core business and instead be able to steer towards the field with the highest potential, a different organizational structure than the one in the observed company might be needed. According to Tushman and O'Reilly (1996), it is advantageous to have an ambidextrous organizational structure to be able to successfully explore new opportunities at the same time as the existing capabilities are exploited. This means that the organization should have separated exploratory and exploitative units that still are linked at the senior executive level (O'Reilly & Tushman, 2004). This would allow radical innovative activities to take place without being affected by the processes, structures and cultures of the core business (O'Reilly & Tushman, 2004).

Third, getting out of the office to meet with customers is hindered by time constraints, lack of customer files and fear of disclosure of information. According to Blank and Dorf (2012), facts live outside the building, where the potential customers are, why it is necessary that companies enable and permit interaction with potential customers.

This in order to gain deep understandings of both the customers' needs and expectations regarding the solutions of their perceived problems (Blank & Dorf, 2012). However, systems designed to prevent disclosure of information, such as non-disclosure agreements, prevent the company from interacting with potential customers as suggested by the framework. This type of bureaucratic control is according to Hoecht and Trott (2006) not suited for functions that are important for a company's competitiveness, such as R&D activities. Therefore, a control system that allows customer interaction and disclosure of information on an appropriate and non-adverse level might be needed when pursuing customer development activities.

6.1 Academic contribution

This research has contributed to the increasingly popular fields of literature of lean startup methodology and customer development through providing data on the applicability of such frameworks in large and established firms. This data consisted of an identification of potential barriers related to using the customer development framework in large established organizations. Even though the results of this study are not generalizable, they are arguably relevant to consider for other large established organizations before implementing the customer development framework as a tool for development projects.

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