MASTER THESIS

An Entrepreneurial Management Framework:

The Process of Decision-Making regarding Startup Advisors

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Abstract

Making good decisions is imperative for startup founders. The entrepreneur behind the pioneer within touch-screen watches, Mutewatch, highlights the importance of startup advisors in order to encourage inexperienced entrepreneurs to try their wings and how to gain experience with lower risks, which are enabled by the advisor's network and previous experience. The aim of this study is to investigate what makes a successful handling process of a startup advisor. We will describe the individual personality traits of the advisor, communication used and what role they had. By outlining the assumed goals of the startup we will also investigate the success rate of the relationship based on as how valuable the relationship was for the entrepreneur in order to reach their goals. We utilize one of the authors of this thesis, Mai-Li Hammargren, who is one of the entrepreneurs behind Mutewatch in order to gain in-depth knowledge on a relational level with the advisors. Mutewatch was a pioneer within crowdfunding and Mai-Li used the network in order to make the product a reality. The study therefore uses an entrepreneurial perspective when looking at each relationship. We have structured the material in a processual model. We have divided the timeline in smaller phases and structured the advisors according to what goals they were aimed to help the company to reach. The analysis of the empirical data is based on effectuation: the theory of decision-making pattern used by successful entrepreneurs introduced by S. Sarasvathy (2001). The Team Roles were analyzed using a model introduced by Dr. M. Belbin (2010). We found that the success rate of the relationships increased with the level of fit between the individual, communication and role, as well as with the level of success in the other relationships in the group as well as the level of effectual logic applied and the level of team diversity.

Keywords: Handling process, Entrepreneurship, Startup, Mutewatch, Product development, Qualitative case study, External advisors, Effectuation

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1 Introduction

"Founding a company while still at university enables you to take the role as an individual who is willing to learn more easily and who can tap into a talent pool of the alumni network and experts connected to the university. The ability to learn and to connect are both useful traits for entrepreneurs."

The quotes are obtained by Mai-Li Hammargren, co-founder of the case company Mutewatch, and illustrate some of the challenges entrepreneurs face: a steep learning curve and connecting with people who valuable for the business. In Sweden, entrepreneur or inventor is listed to be a dream job for 14 percent of the population 2014 (Sifo). The percentage of people taking the step is lower, and of those startups that receive venture funding, 75% are estimated to shut down without resulting in return on investment for their owners, and 95% will fail to meet their expected return on investment according to a study performed between 2004 and 2010 by Harvard Senior Lecturer Shikhar Ghosh (Gage, "The Venture Capital Secret: 3 out of 4 Start-Ups Fail.", *The Wall Street Journal* at www.wsj.com, 2012). These numbers indicate that entrepreneurship is not an easy task and entrepreneurs need support.

Entrepreneurs often need to make decisions in situations of high uncertainty, which managers of more mature companies do not have to do. To include this aspect we have analyzed the data using Effectuation introduced by S. Sarasvathy (2001). Effectuation is the decision-making pattern that successful entrepreneurs utilize (ibid.

The performance of diverse teams is more creative, efficient and creates better results (Scott, 2007). Yet, most organizations have relatively homogeneous groups of individuals (ibid.). In this thesis, we will have a network perspective instead of a company perspective, where the entrepreneurs form a team with the people they interact with as they strive to reach the goals of the company. This means that advisors will be seen as team members. To study the different team roles we will use Belbin's Team Roles (See Theoretical Framework, Roles).

The study is based on the case company Mutewatch AB, founded by Mai-Li Hammargren, Oscar Ritzén and Gustav Hammargren in 2008. The company closed down

its operations in 2014. Mai-Li Hammargren, who was the main founder, is the co-author of this thesis and therefore the study is a self-reflective qualitative case study. We will go deeper into the background story of Mutewatch in the empirical findings.

Studying market mechanisms that can decrease the level of failure is therefore a problem with studying. With a basis in this dilemma, the focus of the thesis is to find ways to how entrepreneurs can gain experience based on other people's previous success and failures, to hopefully create a valid, decision-making framework within entrepreneurial management. With more information available it might enable more people to start businesses.

1.1 Research Question

We will use the following research question:

How do entrepreneurs handle external advisors and what impact does it have for an early stage startup company?

1.2 Definitions and Delimitations

Delimitations

This chapter will explain the delimitations of the thesis to make it easier for the reader to understand the approach the thesis has to the handling process of startup advisors.

Entrepreneurship can include a variety of business. We have chosen to limit the study to startups defined by having a high degree of innovation and growth-potential. We will use the assumption that startups by this definition operate in an uncertain environment. We will hence not elaborate further on the risk-aspect.

The handling process of external startup advisor can be interpreted in a variety of ways. We have chosen to delimit the definition to the decision making of the role of the advisor and the communication with the advisor. In other words, the definition will not cover how the advisor was recruited or implemented, or how the advice and/or introductions were handled further.

The intention of using advisors comes with the assumption that they have contributed to the startup's goals through decreasing the uncertainty. The company goals are assumed to exist within three main areas: market, product and finance goals.

The case company has three founders: Gustav, Oscar and Mai-Li. Mai-Li was the founder who had the most contact with advisors, and was the only one who had contact with each one. To make it simple, we will therefore focus on Mai-Li's (as the entrepreneur) contact with the advisors and her engagement in the complementary team discussions.

The study will narrow down the discussion to three perspectives and two phases. The three perspectives are market, product and finance. We believe that these perspectives are the most prominent ones in a startup (see Modified Process Model for details). The two phases are ideation phase and industrialization phase. We wanted to focus on these initial phases, rather than the latter phases of launch and after-launch (see Modified Process Model for details) because we wanted to dig deeper into fewer advisors over two phases rather than to provide a shallow analysis of too many advisors over four phases.

The study aspires to provide other stakeholders, such as external advisors and owners, with reflective material and how they assisted in the company making wiser, future decisions. Studies show that there are normally four phases that a startup company goes through: ideation, industrialization, launch and after-launch phase. To narrow down the discussion, the main focus will be on an early-stage startup in the ideation and industrialization phase. One reason for this delimitation is that the financial capital used in the case study matches the sources of funding often used in these early stages (Allen, 2006). According to Moore (2002), the entrepreneurial journey is divided into two main segments that are divided by a "chasm". Different strategic approaches are needed in order to move from the 'early market', defined by innovators and early adaptors, since the majority of the chasm symbolizes risk. The thesis focuses on the "pre-chasm". These phases are defined under 'Definitions'.

The delimitations will hopefully make it easier to follow the logic in the study as a whole.

Definitions

The following section will explain some of the key definitions that are valuable for the thesis.

Startup

A newly started company based on an idea with a high level of innovation and a big growth potential. A startup is often surrounded by a high level of uncertainty and has a binary potential of success or failure. Innovative startups are often the first player within a field and in order to leverage on this potential, first-mover advantage it's important to scale fast once the product market fit is found and the market takes off. The product market fit is when the product quality is good enough so that the entrepreneur can charge for the product; people are starting to be so familiar with the product and its benefits so they are willing to pay for it. Before this point in time the organization often runs without profit or even revenue. The entrepreneurs behind these ventures often construct the organization around a potentially high growth and will often raise external capital. Before the startup hits the product market fit or even before the company is profitable, the company is dependent on external people to continuously support the initiative. For this reason the outcome tends to have a binary characteristic: the company makes it big or goes out of business. These organizations where risk is a natural part of the creation of the company are more common among startups constructed in this way.

Intangible vs. tangible assets

In accounting, intangible and tangible assets are defined not by physical appearance but at which level that they can be controlled. The traditional accounting definitions of intangible vs. tangible will not be applied in this thesis. In this thesis, in the ideation phase, product perspective (see Modified Process Model for details) the goal of the perspective is to package an intangible product with something tangible (see Empirical Findings). The intangible product is the Mutewatch that is not yet in production. The tangible assets are defined as the team including core team and advisors, the office, the renderings (digital photos), the letters of intent and the non-disclosure agreements that made dialogues and relationships more tangible. The renderings (although digital) of the design that were developed in 2009 are considered tangible assets as they helped the team make stakeholders commit, and they also made Mutewatch as a concept more tangible even without a physical product. In the industrialization phase, product perspective (see Modified Process Model for details) the goal of the perspective is to package a tangible product with something intangible (see Empirical Findings). The goal of the industrialization phase is to turn the prototype into a mass-producible product. The prototype didn't exist in the ideation phase so the product is more tangible in the industrialization phase. To package the tangible product the intangible assets were the idea, brand and reputation (word of mouth and story of how Mai-Li came up with the idea) and customer service and events that expands network and community.

Hard money vs. soft money

In this thesis we will use two definitions of capital. Capital with lower expectations of return, control and monitoring will be defined as soft money. Capital that requires a higher level of control and monitoring as well as higher expectations of return on investment is defined as hard money. In the startup world an example of soft money would be an award or governmental contribution, and an example of hard money would be venture capital companies, also called VCs.

An active vs. a passive startup advisor

This is a person with a significant level of expertise who is either contributing actively with strategic advice or passively through brand endorsement. Their main function is to open doors for the entrepreneur.

Early phase vs. late stage startup

An early stage startup is defined by a company that has been founded within the past two years and has not raised more than \$2.5 M in funding (TechCrunch Disrupt, 2015). A late stage startup has the same innovation and growth-potential characteristic as an early startup but has been around longer and/or has more funding.

Phases

To make it easier to compare the findings of this study with other startups we have divided the journey into shorter phases.

Effectuation vs. causation

Effectuation refers to the term Saras Sarasvathy introduced in 2001 and is a decisionmaking pattern among successful entrepreneurs in situations of high uncertainty. The inverse of effectuation is causation, which refers to the decision-making pattern in situations that are more predictable. Effectuation and causation are explained further in the theory section.

The area of interest

In this thesis, the area of interest is defined as early stage startups, founded by an entrepreneur who uses effectuation as a decision making pattern and external advisors to complement the team.

The definition above will hopefully provide you, as a reader, with a greater understanding.

1.3 Method

This section will introduce you to the methods used in the thesis when researching the area of interest. This, in combination with the definitions in the previous section, will hopefully provide you with a clearer picture of how the thesis is constructed.

Research method

We wanted to create something that would be easy to apply for future researchers examining the area of early stage startups, and to create a grid with the goals of the startups on the vertical axis and the timeline of phases on the horizontal axis. The phases are: ideation phase, industrialization phase, launch phase and after-launch phase. As the study is focused on early stage startups, we will focus on the two first phases: ideation phase and industrialization phase. The goals are product, market and finance goals. In the empirical findings we will start with a chronological story to give an overview, and then will present Mai-Li's self-reflections regarding the interactions between the entrepreneur and advisors. The Interactions chapter will first describe each advisor individually on two levels: firstly, the relationship between individual, communication and role and secondly, the advisor type and Team Role that each team member had. Then, at the end of each perspective we will describe the interactions on a team-level. There are in total fourteen advisors. We have chosen to give the advisors other names than their real names in this thesis due to privacy and integrity reasons.

The analysis follows a similar structure as that of the empirical findings. Firstly, the analysis examines each advisor and the relationship between individual, communication and role. This will be done by applying the following principles from effectual logic: the pilot-in-the-plane, lemonade, affordable-loss, bird-in-hand and crazy-quilt principle. After the separate relationships are analyzed a team level analysis will follow at the end

of each perspective. This part is analyzed based both on Belbin's Team Roles theory, and the bird-in-hand and crazy-quilt principles within effectuation theory.

The conclusions will sum up the findings from the analysis using the same structure. Firstly, the relationship between individual, communication and role and the applicable effectuation principles will be summarized. Secondly, the team level conclusions will be made. Implications will be discussed for both parts.

Modified Process	Ideation phase	Industrialization phase	Launch phase	After-launch phase
Model Phases /				
Resource				
Perspectives:				
Market perspective				
Product perspective				
Finance perspective				

Qualitative method

To understand how entrepreneurs handle external advisors, one has to understand the context, as well as internal and external interactions and how these interact with each other. The phenomenon is context dependent so a descriptive approach that uses a qualitative method is suitable for the research design (Bryman et al., 2007). Usually, a qualitative method suits answering questions of why and how, whereas a quantitative method is more appropriate when researching questions of what. This study aims to answer a research question of how, hence a descriptive and qualitative approach is suitable. Qualitative methods entail interviews, and so for this study the co-author Stella Chen has interviewed the co-founder (and co-writer) of Mutewatch, Mai-Li Hammargren, on several occasions resulting in six interviews of 30 minutes, all of which are utilized in the six chapters in the empirical findings' section. The interviews followed a certain structure and covered different areas (see interview questions in Appendix).

The typical method is often based on existing theoretical work (Bryman et al., 2007). Due to the lack of suitable material in existing literature the typical method was not considered possible. Below, a further approach of the study is described.

Self-reflective approach

The interviews have been of the self-reflective kind where Stella has asked the questions and Mai-Li has answered in a self-reflective fashion. The study has a self-reflective approach and is written by one of the main founders of the case company. The handling process of external advisors is complex due to the interdependency and changes that take place over time. According to Dirom (2000), research material that might contain hierarchies (e.g., Chataway, 1997; Simonson & Bushaw, 1993) and power struggles require openness towards new ways of doing business along with an ongoing assessment of the process in order to address these challenges. Therefore, a self-reflective approach is appropriate for this case study.

Abductive approach

Unlike more traditional research studies, this research does not seek to confirm or reject a certain hypothesis based on existing theory, but rather uses existing literature and empirical findings as sources of inspiration in order to find patterns within the area of interest. This approach is called an abductive approach. For this reason different sources should be seen in the context of each other throughout the thesis. Early stage startups need to work well with certain resources in order to be sustainable. The targeted customer group and the challenges will change over time (Moore, 2003). Managers need not only to get the right advisors onboard, they need to inform them on a continuous basis to ensure that they have the information needed in order to give relevant feedback. An abductive approach is suitable as it finds patterns and inspires new perspectives rather than confirming or rejecting a certain hypothesis. Deductive studies aspire to use existing theory and form hypotheses on how the real world looks (Bryman et al., 2007: 11). Then, you either accept or reject those hypotheses based on the empirical findings. Inductive studies, on the other hand, look first at the real world in terms of empirical data and then let the empirical findings shape new theories (Bryman et al., 2007: 14). Abductive studies use both existing theories but also look at empirical data to confirm those theories or adjust the previous theories. The process is hence iterative. This study uses an abductive approach because both existing theories are used but the findings from the empirical data shape new theories as well.

Referring to the technology adoption lifecycle, the target customers change over time for an early-stage startup. This means that the challenges that managers face in early-stage startup are specific and also change over time. The right decisions are crucial and therefore the managers need to pick the right advisors and provide them with right information. Due to the high pace this is often considered an iterative process.

The startup lifecycle is divided into four main phases. Each phase is defined by different elements such as risk and goal challenges, which are analyzed from different perspectives. This will hopefully increase the comparability between startups. The four main phases are ideation phase, pre-launch phase, launch phase and post-launch phase. The biggest challenge during the ideation phase is to make the idea as tangible as possible in order to get people onboard. During the pre-launch phase, resources are key, while during the launch phase product quality is the main focus. During the post-launch phase, efficiency is the main focus.

Interpretivist and constructionist approach

An interpretivist approach means that social actions have subjective meanings and have to be interpreted by professionals in order to contribute to better understandings (Bryman et al., 2007). The actors within the area of interest act on their own rationale and selfunderstanding. By using this approach, the study identifies the actors' abilities and preconditions as well as the actors' subjective interpretations of these abilities and preconditions.

A constructionist approach means that a social phenomenon and its meaning is continually being constructed and reconstructed by social actors (Bryman et al., 2007). This means that the understanding of a handling process by external advisors and customer segments are socially constructed. If you change the cognitive understanding among the practitioners you also change the handling process, or customer segment. It also implies that structures, rules and relationships within the equilibrium of business are established through negotiations and social functions (Bryman et al., 2007).

Process approach

The definition of a startup is a company with high-growth potential, which in most cases is inevitably connected to fast changes and therefore higher risks. The high-growth potential contributes to a "binary" tendency for a high-growth startup. Due to the uncertainty surrounding a startup we chose to have a process model divided into phases, reflecting the fact that circumstances might change along the way. The phases of the process are chosen based on the "need tendencies" of the startup, which are similar throughout the phases.

The goal with a process approach is that uncertainty can be lowered by comparing similar companies to each other. Employing a process approach rather than a focus on outcomes is also suggested by the German economist, Herbert Giersch. His basic postulate is: the approach is micro rather than macro, socioeconomic rather than mechanistic. Yet, the process approach might provide a deeper understanding of how startups can develop both goods and human artifacts that are connected to the brand of the company. In the spirit of Schumpeter's methodological individualism, it behooves one to concentrate on processes rather than outcomes, on voluntarism rather than determinism. In addressing the world's current, economic development this train of thought stresses relevance over rigor, movement over static optimality.

Case study method

The focus of the case study is on a contemporary phenomenon within a real life context and questions the 'how' and 'why' which according to Yin (2003), is appropriate. This method enables a deeper understanding to be derived from the context (Yin, 2003). In combination with the interpretivist approach, the case study method helps in capturing the complex, social interactions investigated in the study.

Confirmability

Confirmability addresses the impossibility for the researcher to be fully objective and indicates that a certain extent of personal values should be embraced in the study (Bryman et al., 2007). The objectivity of the research has been increased by the co-author, Stella, who has performed parallel discussions and interviews with Mai-Li and has used industry experts to validate assumptions, in order to compare startups in a similar situation; therefore validating the specific methods used. It is recognized that there are both pros and cons when performing interviews with solely the co-founder and not with other parties, such as the other co-founders, people part of the core team and the advisors. A major pro is that this enabled in-depth interviews with Mai-Li where she gave her versions of events. A major con is that this method only enables one side of the story

and perhaps presents a biased perspective. Interviewing more actors would have enabled a more nuanced perspective and a broader view of the whole picture.

In a self-reflective study there is risk for biasedness. To mitigate this, the co-authors have divided the work so that one is the interviewee and the other the interviewer. In this way, there is room for academic and objective perspectives while still obtaining a depth of knowledge of the interviewee/case company CEO.

The methodological background used in the research will hopefully make it easier to understand the approach and scope of the research.

2 Theory

The following section will walk you through literature within the area of interest.

2.1 Literature review

Startups operate in an uncertain environment. Traditional planning and decision making is based on an ongoing history and a predictable future, which is not applicable for startups. Entrepreneurs need methods to increase the control and decrease the risk. The strategy that encourages entrepreneurs to be brave and simply try things might lead to increased risk. Theories such as effectuation and the book *The Lean Startup* by Eric Ries (2011) present entrepreneurship to be more similar to management than people in early eras have thought. Something as disruptive as entrepreneurship must be managed in order to succeed. More developed models and strategies for uncertain environments will help entrepreneurs to succeed and to save time, money and energy.

The existing literature focuses primarily on traditional advising and management consultancy. This is not applicable to this thesis as these industries traditionally operate in a less risky environment. Meanwhile, advisors of a startup operate in high-risk environments and often are not paid. Different environments and challenges require different business techniques. In order to get a picture of existing literature that uses a more traditional approach, the thesis includes a quick overview of the book *The Economics and Sociology of Management Consulting* by Thomas Armbrüster (2010). This book is relevant as it includes perspectives and research from earlier literature on management consultancy. Management consulting is assumed to have two roles: support to the client's acquisition of knowledge and support to the execution of the change.

2.2 Theoretical framework

2.2.1 Decision-making and handling process

Creation of Markets

For the purpose of understanding the dynamics of effectuation and how markets come to be, we need to define the term "market" (Sarasvathy, 2008: 96).

According to Sarasvathy, the various descriptions of a market can be divided into three distinct categories: demand, supply and institutions (2008: 96). First, there are people willing to consume the product and able to pay for it (demand); then there are people willing and able to produce the product at the price consumers are willing to pay (supply); lastly, there are a variety of institutions such as distribution mechanisms and regulatory bodies that enable the product to get safely from the producer to the consumer. This is valid for any well-established, existing market. The problem of new markets is, on the other hand, more complex. The creation of new markets is filled with incomplete information (Denrell et al., 2003 cited in Sarasvathy, 2008: 97). If demand is endogenously changing in terms of varying preferences and tastes, then there is incomplete information. Even if demand is exogenous and relatively stable, supply can vary since there are a number of ways in which demand can be met through, what Sarasvathy calls "technological progress and institutional evolution" (Sarasvathy, 2008: 97). Sarasvathy highlights the difference between the *exploration* of new markets and the *exploitation* of old ones (2008: 97).

Exploration includes such concepts as search, variation risk-taking, experimentation, play, flexibility, discovery, and innovation. Exploitation includes such things as refinement, choice, productions, efficiency, selection, implementation, and execution (March, 1991: 71 cited in Sarasvathy, 2008: 97).

According to Sarasvathy, an entrepreneur who is starting a business will answer that there is some sort of exploration of the universe of possible markets - when asked about market creation (Sarasvathy, 2008: 97). Sarasvathy concludes, referencing Miller and Folta (2002), that either new markets exist in theory and that firms enter them through a variety of exploratory strategies, or new markets emerge as a product of technological and institutional evolution of firms participating in adaptive and iterative processes of

exploration and exploitation within a changing competitive landscape (Sarasvathy, 2008: 98).

Causation

Causal logic is the traditional theoretical approach to business, marketing and economics. According to Sarasvathy, profit maximization will drive the decisions. Rather than designing the reality and making decisions based upon what is not worth losing (as in effectual logic), the management will choose from alternative strategies that lead to the same goal when using casual logic. The most cost efficient alternative will be chosen. Traditional marketing, such as Porter's five forces, are based on casual logic (Porter, 1980 cited in Sarasvathy, 2008: 88).

For the purpose of this essay, we assume that the formation of markets, when markets are new and not mature, is a process of creation and exploration rather than a process of exploitation and identification of an existing market. Neo-classical economics says that the market consists of demand and supply and that there are three factors of production: land, labor and capital.

Suppliers bargaining for power, rent, wages and interest are examples of normative causal logic. Sarasvathy addresses Knight's original thesis (Sarasvathy, 2008: 92) by proposing that economics needs a fourth factor of production, the entrepreneur, to deal with uncertainty. Sarasvathy calls Knight's logic, to a significant extent, effectual. The need for an individual to adjust the course of action in unexpected contingencies is called the "pilot-in-the-plane" principle within effectuation theory, and is something we will explore in detail later on.

Effectuation

Given the scarcity of academic research within our field we will base the theoretical part on entrepreneurial decision-making offered by Saras Sarasvathy's effectuation theory. The theory highlights how successful entrepreneurs make decisions in high-risk environments, which, in many cases defines the environment of a startup. In order to describe the theory as a whole, we will give the reader a better understanding of the contextual framework that the empirical findings and analysis exist in. The main focus will be, however, the principles described in the second part as these are basis of the analysis.

Process elements of entrepreneurial expertise

Sarasvathy came to the conclusion that 88% of the expert entrepreneurs that she studied applied six, similar elements, which altogether define her theory of effectuation (Sarasvathy, 2011). Expert entrepreneurs begin with who they are, what they know and whom they know, and start taking action and interacting with other people. Furthermore, they focus on what they *can* do and do it, rather than worrying so much about what they *ought* to do. When studying how they gain recognition, some of the stakeholders that entrepreneurs interact with will self-select into the process by making commitments to the venture. This results in the fourth element, which is that each commitment results in new means and new goals for the venture. Along the entrepreneurial journey, resources accumulate in the growing network and constraints begin to accrete. The constraints reduce possible changes in future goals and restrict who may or may not be admitted into the stakeholder network. The sixth and last element, assumes that the accumulation process of the stakeholder is not prematurely aborted, instead, the goals and network simultaneously converge into a new market and a new firm.

The effectuation principles

The following section focuses on the effectuation principles. Effectuation describes the logic of entrepreneurial expertise. The opposite logic is called causation, which is based on historical data and a predictable future. A startup has neither one of these principles and for this reason an effectual logic could be seen as a first building block for entrepreneurial management. Entrepreneurial management could be seen as the answer to finding a middle way between traditional management and a "just go do it" attitude that has been dominating the field of entrepreneurship.

According to Sarasvathy, the opposing metaphors of a "jigsaw puzzle" and a "patchwork quilt" capture the differences between a causal and effectual logic of action (Sarasvathy, 2008: 65). In the causal case, the myth is that the entrepreneur, just as a visionary, is able to foresee and predict the future. This case assumes to solve the jigsaw puzzle of a profitable opportunity more quickly and efficiently, and is different from other theories because it brings together financial resources, key people and capabilities to create a sustainable, competitive advantage. However, the main assumption of the jigsaw puzzle, which according to Sarasvathy is problematic and not a fair depiction of reality, is that the jigsaw picture (i.e. the market opportunity) already exists. So, entrepreneurship is merely a task of market discovery, not market creation. The expert entrepreneurs in Sarasvathy's research did not epistemologically believe that the *picture* needed to be put together; instead they worked as a skilled quilter making a patchwork quilt. Sarasvathy (2008: 65) says that there are three distinct ways that a making patchwork quilt and solving a jigsaw puzzle are different in theory.

1. Predetermined versus designed

The first difference is that the quilter has wider latitude and more flexibility than the puzzle-solver when putting together the pattern. When s(he) begins with a basket of random patches s(he) can choose which patches to use where and when and combine them in a way that s(he) finds pleasing and meaningful - opposed to fitting the right puzzle pieces with each other in a predetermined way.

2. Cooperation and decisions

The second difference is that the large quilting projects are usually communal and collaborative; an excellent quilter interacts with others who bring their baskets of patches along with their preferences, tastes, skills and talents. In the meantime, the quilter has to decide who s(he) will work with and why, as well as manage coordination and deal with unexpected events.

The end result is that the quilt has to be pleasing and meaningful while also being useful and valuable. The value-adding aspect could either be a product or service that is beneficial for consumers and society, or an increase to stakeholders and shareholder value. The goal is to, metaphorically speaking, keep human bodies and animals warm and embody their positive traits.

3. The problem space

According to Sarasvathy, the aspiration remains the same in both the causal and effectual case. What distinguishes causation and effectuation from each other is in the problem frame: the former is about choosing the means to create a particular effect and the latter is about designing possible effects using a particular set of means (Sarasvathy, 2008: 75). The causal problem space assumes a predictable future, clear goals and an environment independent of our actions. The effectual problem space assumes an unpredictable future,

also called "Knightian uncertainty", is characterized by unclear goals, or goal ambiguity, and an environment driven by human action (Sarasvathy, 2008: 73).

The following is a more detailed description of the three aspects:

The first aspect is that Knightian uncertainty assumes that it is impossible to calculate probabilities for future consequences (Sarasvathy, 2008: 70). The second aspect is that goal ambiguity assumes that preferences are neither given nor well ordered. The last aspect entails that with isotropy it is not clear what elements of the environment to pay attention to and what to ignore. It refers to the fact that in decisions and actions involving uncertain future consequences it is not always clear *ex ante* which pieces of information are worth taking into account and which are not (Sarasvathy, 2008: 69).

Furthermore, Sarasvathy goes on to elaborate on the following three key elements of the problem space, she notes that these as Sarasvathy refers to the above three elements are part of a logic of design and not one of choice (2008: 73).

The first element is that the problem space is non-predictive, which means that it's not possible to take the probabilities as a given. The second key element is that the problem space is non-teleological, meaning that it's not possible to take the preferences and goals as pre-existing or unchangeable. The last element is non-adaptive, hence taking the environment as exogenous or as something to respond to and "fit" with. Hence, the environment is not something we can affect, but is rather something we are affected by, and should adjust to, as it is independent of our actions.

In sum, the effectual, contrary to the causal framework or line of reasoning is about transforming the problem space and reconstituting realities into new opportunities (Sarasvathy, 2008).

The solution principles for effectual problem space

Causal problems are problems of decision and choice, whereas effectual problems are problems of design (Sarasvathy, 2008). The former helps us to choose; the latter helps us to create. Causal solution principles are more suitable to use when the problem space is causal. For example, when the future is predictable, goals are clear and the environment is independent of our actions. Effectual logic is more useful when there is an effectual problem space. For example, in cases where there is an unpredictable future, unclear

goals and the environment is affected and controlled by human action. The causal player starts with an effect he wants to achieve and asks himself by what means can he create that effect. The effector, on the other hand, starts with his/her means and asks his/herself what goals s(he) can *achieve* with these means. S(he) also elaborates on what else s(he) can do with the means. A variation of causal logic entails the creation of additional alternatives to achieve a given goal (Sarasvathy, 2008: 73). According to Sarasvathy, this form of creative, causal reasoning is used in strategic thinking. Causal reasoning is not always creative, whereas effectual logic is inherently and intrinsically a creative process. Effectuation begins with a given set of means and allows goals to emerge and be created over time from the aspirations and ambitions of the entrepreneur, as well as the stakeholders who are gradually coming-on-board (Sarasvathy, 2008: 73). Sarasvathy further points out that the same person can use both causal and effectual reasoning at different times depending on the situation and circumstances (Sarasvathy, 2008: 73-74). She refers to Gustafsson (2004) when stressing the fact that expert entrepreneurs are capable of both. As the expertise data showed, expert entrepreneurs tend to use effectual reasoning in the early stages of a startup and do not typically make a good transition into causal reasoning in the latter stages of a company.

The Bird-in-Hand Principle

One of the effectual solution principles is the bird-in-hand principle, which is about starting with existing means and creating new effects based on these means. The counteraction is having specific goals in mind and discovering new ways to achieve these goals (Sarasvathy, 2008: 15). A patchwork quilt is a good metaphor for the effectual process. Another way to illustrate the difference between means and ends in the causal versus the effectual logic is the metaphor of a chef cooking dinner (Sarasvathy, 2008: 4). Comparing the same phenomenon: A chef decides upon the recipe and then buys the ingredients in the causal case and checks in the cupboards and designs the menu based on the available means in the effectual case (Sarasvathy, 2008: 74). No process entails a better outcome per se, but the effectual case is more likely to result in more novelty. The ingredients can be a metaphor, for example, for the means in existing networks. It can also be described as goal driven, starting with the end first, as opposed to being means driven. Identifying the means entails that you analyze your identity by asking yourself who you are and what is your knowledge base by asking yourself what you know and who is in your network.

The Affordable-Loss Principle

Causal decision-making models base decisions on the scenario where the return is maximized when selecting the optimal strategies (Sarasvathy, 2008: 81). With an effectual approach, the process starts with an assessment about what one is willing to lose and continues by asking the entrepreneur how to use the new, limited means in a creative way. This enables the entrepreneur to make decisions in environments with high uncertainty without being dependent on predictions. Taking the chef example, a causation entrepreneur would calculate expected returns, potential future sales and risks that constitute the cost of capital. The person will base his/her decision upon this data. In the effectual case, the information is about the entrepreneur's own life, current commitments and aspirations; involving assessment of trade-offs between perceived risks and values over which one can assert some control. An effectual entrepreneur would ask his/herself if this is something that s(he) can identify with doing and if s(he) can survive the worst thing that could happen and base the decision upon this.

The affordable-loss entails that the entrepreneur adapts to existing means and finds creative techniques in order to find a way forward. This usually involves taking on external stakeholders, who themselves may or may not use the affordable-loss principle when committing resources to the venture (Sarasvathy, 2008: 82).

The Crazy-Quilt Principle

Causal strategy models stress the importance of competitive analysis (Porter, 1980 cited in Sarasvathy, 2008: 88) and asking who you know (Sarasvathy, 2008: 78). The entrepreneur would have asked him/herself about the company goal first and then selected the right people for the role as an advisor. With the effectual approach, the entrepreneur would ask him/herself what available advisors there were. The advisors would then commit through a self-selecting process.

Effectuation on the other hand, stresses the importance of alliances and precommitments from stakeholders as ways to reduce and/or eliminate uncertainty and erect entry barriers (Sarasvathy, 2008: 88). The crazy-quilt principle involves negotiating with any and all stakeholders who are willing to make actual commitments to the project (Sarasvathy, 2008: 15). In addition, the ones who commit determine the goals of the enterprise, not vice versa and help in "actively participating in shaping the enterprise" (Sarasvathy, 2008: 16). Opportunity is costly in regards to possible stakeholders who may or may not come onboard later (Sarasvathy, 2008: 88). In combination with the bird-inhand principle, the first task of the entrepreneur is therefore to look at who you have in your closest network and then to interact with and enable stakeholders to self-select themselves into the process. The effectual logic of assuming that there is no pre-existing market to identify, and according to Sarasvathy, necessitates that the stakeholder's commitment process is the ramification for the concurrent creation of markets and firms (Sarasvathy, 2008: 88). Effectual entrepreneurs focus on creating an image of the future. This comes out of a dynamic series of stakeholder interactions, instead of a vision of trying to *sell* to target stakeholders. Not being wed to particular markets or visions allows the growing patchwork quilt of stakeholder partnerships to converge to new markets, or to determine which particular markets the new venture will end up transforming (Sarasyathy, 2008: 89). Entrepreneurs build partnerships from the start, for example, by inducing customers and advisors into stakeholder partnerships (Sarasvathy, 2008: 89). The relationship between the entrepreneurs and advisors can be seen as partnerships that both help the entrepreneur to reach out to more early adopters, as well as make the product more tangible as described later in the theory section.

The Lemonade Principle

"When life gives you lemons, make lemonade."

Causal models seek either to avoid the unexpected or to achieve predetermined goals in spite of contingencies. Effectual logic, however, is about exploiting those contingencies and making up plans incrementally in order to take advantage of them, using uncertainty and contingencies as a resource for the goal (Lindblom, 1959 cited in Sarasvathy, 2008: 90). By doing this, the entrepreneur treats unexpected events as a way to leverage a certain path and "ride with the wave instead of against it". The name of the principle is derived from the expression "when life gives you lemons", in reference to unlucky events. Linked to the bird-in-hand principle and in the chef analogy, the ingredient turning up along the journey can still be valuable to the end result if the entrepreneur is successful in seizing the right opportunities. An entrepreneurial company's DNA often

consists of the individual's competences and aspirations (Sarasvathy, 2008: 91). The lemonade principle provides a perspective that, instead of seeing unexpected events as something you should try to avoid, one should see them as a source of opportunity.

The Pilot-in-the-Plane Principle

"An autopilot is good but a real pilot is better - just in case."

Just like all the principles mentioned above, the pilot-in-the-plane principle is about how the entrepreneur can execute non-predictive control (Sarasvathy, 2008: 91). The similarity between causal and effectual logics is that both seek control over the future. Meanwhile, causation focuses on the predictable aspect; with the logic that if we can predict the future we do not need to control it, whereas effectuation focuses on the controllable aspect of an unpredictable future with the logic that; if it's not possible to predict the future we can use control to shape the future. The principle explains that the entrepreneur is in charge - no matter what's happening. Machines are reliable and predictable and are useful when the future is predictable, but the human ability to adjust to the unforeseen makes a better pilot when the future is unpredictable. A person with the mental space and capability can turn problems into opportunities in a space that is characterized by Knightian uncertainty, goal ambiguity and environmental isotropy. This is the key to outlive a disaster. The pilot is there to steer the plan in times of thunder. The pilot-in-the-plane principle is the key to why we need entrepreneurship in the first place. Instead of relying on technological and socioeconomic trends, the pilot-in the-plane principle states human agency as the prime driver of opportunity. Sarasvathy stresses the fact that predictability can sometimes lead us to neglect non-predictive aspects and hence control mechanisms that do not require us to predict the future. Either way, the future should be seen as unknowable and we should apply both prediction and control.

2.2.2 Resources

A company is dependent on its internal as well as external resources. Resource Dependence Theory stresses the influence of external factors on organizational behavior and recognizes that, although constrained by their context, managers can act to reduce environmental uncertainty and dependence (Hillman et. al. 2009: 1404). At the core of these actions is the concept of power, which is the control over vital resources. Pfeffer

(1987: 26-27), cited in Hillman et. al. (2009: 1404-1405), provides the basic argument of the resource dependence perspective and interorganizational relations as:

"1) the fundamental units for understanding intercorporate relations and society are organizations; 2) these organizations are not autonomous, but rather are constrained by a network of interdependencies with other organizations; 3) interdependence, when coupled with uncertainty about what the actions will be of those with which the organizations interdependent, leads to a situation in which survival and continued success are uncertain; therefore 4) organizations take actions to manage external interdependencies, although such actions are inevitably never completely successful and produce new patterns of dependence and interdependence; and 5) these patterns of dependence produce interorganizational as well as intraorganizational power, where such power has some effect on organizational behavior."

Resource Dependence Theory claims that managers can enact five options to reduce the environmental dependence, one of which is the board of directors (Hillman et. al., 2009: 1405).

Pfeffer (1972b) cited in Hillman et. al. (2009: 1408) stresses that boards enable firms to minimize dependence or gain resources. Early studies that use Resource Dependence Theory to examine boards focus on board size and composition as indicators of the board's ability to provide critical resources to the firm. Pfeffer's (1972b) also talks about board composition and the need to *match* the resources provided by the board with the needs of the firm. Hence, it is not just the number, but the type of directors on the board that matters.

Pfeffer and Salancik (1978) cited in Hillman et. al. (2009: 1408) suggests that directors bring four benefits to organizations: (a) information in the form of advice and counsel, (b) access to channels of information between the firm and environmental contingencies, (c) preferential access to resources, and (d) legitimacy.

2.2.3 **Resource Perspectives**

The research question is "How do entrepreneurs handle external advisors in different phases in an early stage startup and what effect does it have". In order to examine the effect upon the company goals, we have chosen to focus on three specific categories of goals: market, product and finance. This is done in order to create a consistent structure that can be compared over time in different phases, as well as with other companies. We describe why we chose these categories in 'Modified Process Model'.

Market perspective

With the market perspective we will refer to the effect that the relationship between the entrepreneur and the advisor has on the ability to reach early market, defined as innovators and early adopters. The base for this perspective will be the book *Crossing the* Chasm (1991), which details the product adoption lifecycle for high-tech startups by Geoffrey Moore; it is considered to be a renowned book in terms of startup marketing. Marketing is defined as actions taken to increase revenues. It is too expensive to pay for every marketing contact made; marketing is therefore dependent on a chain reaction, i.e. word of mouth. A chain reaction is more likely to happen within a group that has tightly bound communication channels because it is naturally more self-referencing. For this reason, you often refer to market segments (1991). The definition of market used by Moore is: a set of actual or potential customers, for a given set of products or services, who has a common set of needs and wants and refer to each other when making a buying decision (1991). This section will first provide an overview of Moore's product adoption lifecycle, and later will describe innovators and early adopters. If the relationship between entrepreneur and advisor enables these groups to be reached then we consider this a positive effect on the market goals.

Product adoption life cycle

"The company failed because its managers were unable to recognize that there is something fundamentally different between a sale to an early adopter and a sale to the early majority" - Moore, Crossing the Chasm

Product adoption life cycle is a term that says: in order for a new and innovative service or product to be adopted it has to be adopted by certain groups first. Geoffrey Moore released *Crossing the Chasm* in 1991. Tom Byers, Director of Stanford Technology Program, announced it as "still the bible of entrepreneurial marketing" in 2006. The technology adoption lifecycle, also called "bell curve", is categorized into five customer groups: innovators (2.5%), early adopters (13.5%), early majority (34%), late majority (34%) and laggards (12%). Between the different groups are "cracks" that symbolize risk, as each segment has different preferences. Moore suggests that a startup should focus on one customer segment at a time and use one segment to reach the next one. The biggest crack, the chasm, is between early adopters and early majority, as early majority are more conservative and make purchase decisions based on recommendations from the same group. This is in comparison to early adopters who make purchase decisions based on statements from enthusiasts. The early majority group (when the company has passed the stage of early market) is often the key to profitability. This contributes to an increased risk before reaching that market segment. Below is a description of innovators and early adopters who together constitute the early market, which is a focus of this thesis.

Innovators

"They are the ones who will spend hours trying to get products to work that (...) never should have been shipped in the first place" G. Moore, Crossing the Chasm

Innovators are also called technology enthusiasts. They are the first to discover new technology and have a higher tolerance towards technological bugs. They have the competence to evaluate new technology and therefore often work as gatekeepers for the other groups. Innovators have two main preferences: to talk to technical experts when in need of support, as they want "the truth without any tricks", and that technology shouldn't be too costly to try out. As an inventor, you cherish them for sharing their thoughts, listening and for giving advice. According to Moore, enthusiasts are like the "kindling starting the fire" (Moore, 1991).

Early adopters

Early adopters are referred to as visionaries who drive the high-tech industries. When buying, they are not as "price-sensitive" compared to innovators and are therefore often domineering when buying decisions. Visionaries are also often highly engaged and driven by a "dream bias" towards a business goal rather than a product goal. They are often not looking for product improvement but, for a breakthrough. They are "easy to sell to but hard to please" according to Moore.

The Product Perspective

"The entity may have either a tangible or an intangible nucleus. But the whole can only be described as having certain dominance." -Shostack

From a product perspective, the preferred effect of the relationship between the entrepreneur and the advisor is that it results in either tangible or intangible product elements. The intangible and tangible (core) elements constitute the "whole product", which is a concept that was introduced by Regis McKenna (McKenna, 1985). The whole

product is a generic product augmented by everything that is needed in order to create a reason for the customer to buy. It includes intangible elements that make a product valuable and useful for a customer. The core product is the tangible product that the customer experiences. The first framework of a core product was introduced by Philip Kotler. If a personal computer is considered a core product then the software, Internet, and the instructions on how to use the machine make the computer useful; all the other elements of the physical product. This concept of a whole product becomes relevant for startups as innovative concepts, whether the core product is a hardware or a software product, will mainly be constituted of intangible elements in the beginning. Marketing for startups is therefore complicated since traditional marketing concepts have been shaped based on manufactured products. Products have also been divided into an "either or" concept where a product is *either* a manufactured good or a service. G. Lynn Shostack highlights some of the complications with this "either or" approach in her article, "Breaking Free from Product Marketing" (Shostack, 1977). According to Shostack, "it's wrong to imply that services are just like products 'except' for the intangibility" as the distinction between physical products and services has a profound implication. Intangible products include experiences, time and processes that cannot be stored, touched or tried. Adding the concept of a "whole product" to the equation makes it more complicated as this means that all manufactured products will have intangible elements. If a product has a positive "network effect" it means that its value increases with the number of people using the product (Sundararajan, 2007).

Taking Mutewatch as an example and assuming that the advisors have credibility within their social circles, their opinion and knowledge about the product might work as manual and intangible elements as well as a "network effect", thus making the product more valuable. The product might have received more legitimacy and influenced potential customers to get enough confidence to purchase the product. The relationship with the advisors and the people in the network, along with the people in the team, office and design renderings all together constitute the "whole product" in the early stage of the company. This convinced people to preorder the Mutewatch product.

With the concept of reaching the product goals, we refer to the whole product as including both the tangible and intangible elements.

The Finance Perspective

This part elaborates on the finance perspective. Why do we want to reach out to innovators and early adopters and why do we want to create a valuable product based on tangible and intangible elements? The one thing that entrepreneurs chase is usually a "product market fit" where they can create a sustainable business model, which is what legitimizes a company in the long run.

Until a product market match is found a startup company is funded by soft money. This can be owner's money, private investor's money or governmental funds supporting the founding of new ventures. Even if all types of external capital often have the end goal to make the company a self-sufficient entity that gives financial returns, these players can make faster decisions without a due-diligence process.

Hard money

The traditional corporate finance is sometimes called "hard money".

The external capital coming from mainly banks and venture capitals have two main things in common: the main goal of the transaction it to make financial return. This strategic component aims to maximize the likelihood of adding shareholder value by minimizing the ratio of transactions that it will lead to. The decision to fund or not to fund is based upon a balance of objective data analysis. When applying this standard procedure before the transaction is made, management at these institutions can prove that a certain procedure of caution has been taken hence enabling them to disclaim any personal responsibility. The areas that this audit covers are, for example, financial, product, management and market together. Because of the requirements, this kind of funding is often more frequent among more mature startups.

Soft money

Capital that targets early-stage companies and startups are sometimes called "soft money".

Due to that fact that soft money has a lower degree of requirement, the funding opportunities in this category are more likely targeted to early stage startups, such as the case company in this study. Within this category, we can find private investors (also called angel investors) who are managing their own investments and institutions with the

goal to have new businesses and entrepreneurship, such as scholarships and governmental grants or loans. A private investor manages their own money and can make bolder decisions, for example, based on intuition (to a larger extent) and their interest in helping the startup as an advisor in the analysis, whether or not they commit to investing in the product. Since institutions sometimes have the purpose to fill the gap of insufficient data, until the company is self-sufficient or is suitable for the institutions categorized as hard money, these institutions can take bolder decisions, even without all the data for an accurate risk analysis.

Another form of funding that has become increasingly popular is bootstrapping; entrepreneurs push inflows of capital as early as possible and outflows of capital as late as possible in order to remain in control as the entrepreneur as long as possible, independent on external funding.

This thesis is about an early stage startup so when applying the financial perspective the goal is assumed to concern the acquiring of capital from the category "soft money". Furthermore, all advisors will be seen as potential, private investors.

2.2.4 Modified Process Model

There is a great deal of literature on the theoretical modeling of startup phases. In the literature, four phases are often mentioned (Van Gelderen et al., 2006: 320). The first phase regards the development of an intention to start an enterprise. The second phase entails when an entrepreneurial opportunity is recognized and a business concept is developed. The third phase looks at when resources are assembled and the organization is created. In the final phase, the organization starts to exchange with the market. One of the process models of entrepreneurial venture creation developed by Mahesh P. Bhave in 1994 (Bhave, 1994: 223) has excluded the first phase and mentions only the following three stages: opportunity stage, technology set-up and organization-creation stage and exchange stage. The opportunity stage includes externally and internally simulated opportunity recognition and commitment to physical creation. The technology set-up and organization-creation stage includes set-up of production technology, organization creation and product creation. The exchange stage includes linking with markets and customer feedback. Business concept, production technology and product are respectively the core variables of each stage.

Opportunity Stage

Externally and internally simulated opportunity recognition

Externally simulated opportunity recognition means that the decision to start a venture precedes opportunity recognition. Internally simulated opportunity recognition entails that the opportunity recognition precedes the decision to start a venture. For the purpose of this essay and the fact that the case company was founded through internally simulated opportunity recognition, we will focus on this part in the theory. The prospective entrepreneurs experienced that there was a need that current vendors could not satisfy. They tried, on their own or together with others, to find solutions to those needs. The entrepreneurs at this stage had not realized that the opportunity stage. Once the solutions to fulfill the needs emerged, the business possibilities became clear. The decision to start a venture was made. This was followed by refinement of opportunity filtration, selection and refinement all culminated in the identification of business concepts (Bhave, 1994: 228-230).

Business concept and business concept development

Business concept development refers to the process of clarifying the business concept in order to obtain a good fit between customers' actual needs and the entrepreneur's perception of those needs. Business concept development is generally easier for businesses with low "business concept novelty" since they have established market data from other firms on how customers react to the product. However, the process of developing a business concept becomes harder when there is high business concept novelty because there is no predecessor that can show the way (Bhave, 1994: 230-232).

Commitment to physical creation

The process of opportunity identification and business concept development often requires the devotion of the entrepreneur's personal (often intangible) resources, such as time. However, to proceed beyond the business concept development, entrepreneurs have to find physical resources and other means externally. This is where the commitment to physical creation takes place. An organization needs to be created and have a production technology set-up in order to create a physical product to market (Bhave, 1994: 232).

Technology Set-up and Organization-creation Stage

Production and production technology development

Some businesses with low production technology novelty use standard equipment and technology to develop their products. Others, with high production technology novelty develop their products in focused environments. Based on the underlying technology development, successful product creation introduces uncertainty, requires risk capital, and makes venture creation more risky for the businesses with high production technology novelty. These business often spend more time on opportunity recognition, customer feedback, studying market and product uncertainty or factors within the environmental space behind control over technology set-up and organization creation (Bhave, 1994: 232-233).

Organization creation

Organization creation refers to the formation of the physical structure, which includes the organizational processes that surround and support production technology at the core (Thompson, 1967 cited in Bhave, 1994: 223). Organization creation often occurs simultaneously with the technology set-up (Bhave, 1994: 233).

Product and product development

High novelty products are generally accompanied by product development since the need to innovate is large for new products. Similar to business concept development and production technology development, product development consumes a lot of resources, adds to the level of uncertainty and risk and can sometimes delay product introduction to the market. Entrepreneurs see the product in relation to the market and customer needs, as well as an embodiment of business concept. Since the product is formed after hearing the customer needs, the needs can change rapidly due to technological change; the product needs to be modified thereafter. The entrepreneur's assessment of the product and business concept on one hand, and the customers and market on the other, proposes that there is a boundary between the firm and the market where the former is the supply side of the boundary and the latter is the demand side (Bhave, 1994: 233-234).

Exchange Stage

Demand and supply side of the boundary

Marketing the product across the supply and demand side of the boundary is the next step in the process. Businesses with novel business concepts and products tend to encounter some difficulty since the introduction requires massive customer education (Bhave, 1994: 234).

Customer feedback - strategic and operational

The last steps of venture creation link markets with evaluating customer feedback. A signal affecting the business concept is strategic feedback (Ansoff 1988, Child 1972, Maidique and Zirger 1984, 1985 cited in Bhave, 1994: 234), since it often calls for new approaches to the problem and requires entrepreneurs to review the needs of the customers. These signals, on the other hand, require changes in production technology or the product, and are referred to as operating feedback (Ansoff, 1988 cited in Bhave, 1994: 234). A signal indicating the need for quality improvements entails that adjustments in production technology need to be made, whereas a signal indicating the alteration or addition of features to a product entails changes in the actual product (Bhave, 1994: 234-235).

In comparison to Bhave's process-model for venture creation, we have performed an adjustment based on Mai-Li's entrepreneurial experiences and the phase terms used within her entrepreneurial network. Mai-Li has had discussions with Karl Lundberg, CEO of the electronics partner, the electronics partner and Gabriel Svensson, who was the main negotiator with the factory. They concluded that the engineering language that is most commonly used for startup phases is ideation phase, industrialization phase and launch phase. Karl mentioned that in the ideation phase their work is often helping the entrepreneur make the idea as tangible as possible by conducting research on estimated costs. This is often tightly connected to designers and helps the entrepreneurs raise funding in most cases. To interact with the customers and receive feedback on early prototypes and pictures from designers' work is the most intense as the main goal of this phase is to transform the prototypes into products that can be mass-produced and later can be launched and shipped. The launch phase is interesting, especially since the

reception from the market is an important indication of future success. During the ideation phase, the biggest focus is to create something that was tangible. In the industrialization phase, the biggest focus is to find resources to put it into production. In the launch phase, the company wants to keep the customer happy, and during the after-launch phase, the biggest focus is to evaluate efficiency and find processes that work. John Svensson confirmed the phases of ideation, industrialization and launch as the most prominent ones, and also added the phase after-launch - as the launch is often connected with delays. There is a chance that the demand might be gone once the entrepreneurs ship and so the after-launch phase is often a challenging phase that many forget about.

We discovered that Bhave's model with the three stages resembled the characteristics of the phases that we have been using in this thesis. Hence, the opportunity stage resembles the ideation phase; the technology set-up and organization creation stage is similar to the industrialization phase; the exchange stage resembles the launch and after-launch phase. We will therefore, in our model, use the characteristics of Bhave's three stages of opportunity, technology set-up and organization creation and exchange but rename them ideation, industrialization, launch and after-launch. The only major difference is that in Bhave's model, contact with the market and customers seem to take place in the exchange stage, whereas in our model, the market perspective of reaching early adopters and innovators is already prominent in the ideation phase. This is due to the fact that Mutewatch used crowd-funding and interacted with potential customers early on. Bhave's article, which is from 1994, signifies that at that time, the Internet and crowd-funding was not an existing phenomenon.

Process Phases

These are the process phases that divide the product life cycle. In this specific study, we will focus on the two first time phases: ideation phase and industrialization phase.

- 1. Ideation phase
- 2. Industrialization phase
- 3. Launch phase
- 4. After-launch phase

The process phases are like a domino game where each phase is defined by certain characteristics with new challenges and opportunities. The phases are interrelated and interdependent. In order to reach the next step, which is to meet the overall goals of the organization, the process phases need to be aligned.

Resource Perspectives

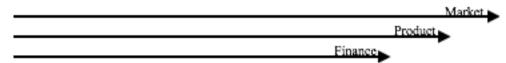
We will describe and analyze each phase from three different resource perspectives:

- 1. Market
- 2. Product
- 3. Finance

The resource perspectives have been developed using the case of Mutewatch and an interview with Gabriel Andersson, a consultant to the business, who has experience with a number of manufacturing companies.

We have also stated the objectives for these perspectives in the literature (see section on market, product and finance perspectives above).

In our case, a new issue of shares divides each phase, which for Mutewatch was the scarce resource. In order to close each round the company used preorders from the market and product milestones to prove the value of the business. Gabriel Andersson mentioned that the three factors that need to be aligned in a business are often market, product and finance. The entrepreneur should focus on the resource that is lagging behind.



Picture: MPF Balance model: The need for market, product and finance resources to be aligned.



The Devil's triangle: how market, product, finance resources interrelate

2.2.5 Roles

Dr. Meredith Belbin created a model for the different roles team members can have in an organization. On her webpage Belbin defines teams in the following way: "A team is not a bunch of people with job titles, but a congregation of individuals, each of whom has a role which is understood by other members. Members of a team seek out certain roles and they perform most effectively in the ones that are most natural to them" (Belbin Team Roles on http://www.belbin.com/rte.asp?id=8). Belbin further defines a Team Role as: "A tendency to behave, contribute and interrelate with others in a particular way". Different individuals displayed different Team Roles to varying degrees. According to Belbin's research, it is not personality or intellect but rather, behavior that determines the degree of success in an organization (http://belbin.com/content/page/4980/Belbin(uk)-2011-TeamRolesInANutshell.pdf). The idea at present is that effective teams are the ones where team members have complementary behaviors and skill sets. Hence, balance is key. The effectiveness of a team will be highlighted to the extent at which members correctly recognize and adjust themselves to the relative strengths within the team, both in expertise and in ability to engage in specific Team Roles (Belbin, 2010: 130). Belbin stresses that each Team Role demonstrates a strength, as well as an allowable weakness a flipside of the behavioral characteristics - which is allowable in the team because of the strength which goes with it (http://www.belbin.com/rte.asp?id=8). Listed below are the following descriptions of the nine different Team Roles that Belbin defines:

Plants

Plants have original minds and are originators of ideas. They are highly creative, innovative and very clever people. They value originality and uniqueness in ideas. However, they are introverts and can be perceived as loners and oddballs. Tendermindedness and natural forthrightness are typical traits. They are not the typical managers (Belbin, 2010: 45-46).

Resource Investigators

Resource Investigators are creative and innovative people but are not as clever as plants. They value versatility. They are inquisitive, stable extroverts with low levels of anxiety and high levels of sociability and enthusiasm. They are good at exploring resources outside the group and picking up fragments of ideas from others to develop, as opposed to being idea originators like the Plants. Resource Investigators are recognized for their close involvement with people and their skill in using resources. More easily integrated in the management team, their approach to innovation fits better with existing management ideals (Belbin, 2010: 45-46).

According to Belbin, the roles of Plants and Resource Investigators are highly complementary in a team as Plants (for example) would sit in a corner and think things through by themselves, while Resource Investigators would make sure that no possibility was left unexplored and would use their skills to find resources in unexpected spots (Belbin, 2010: 46).

Coordinator

The role of the Coordinator originated from the role of the ideal Chairman. It is the role of a leader. According to Belbin, the Chairman is an individual who knows how to use resources and be adaptive when it comes to handling people, but who never loses grip on a situation. In addition, good Chairmen have an ability to reach their own judgment based on their assessment of what is needed in practice (Belbin, 2010: 53). The Chairman's interventions are most evident at critical points in the exercise, where they position themselves as the figure in command, aiming to pull the whole thing together. Chairmen would never allow meetings to get out of hand since they are always ready to impose a sense of direction and purpose (Belbin, 2010: 53). The effective chairman showcases personality rather than rank, which is why Belbin renamed the Chairman role to that of

the Coordinator. Coordinators are good at overseeing the exercise, clarifying where the team is going, and canvassing the opinions of others rather than making decisions alone. They also make sure that the members of the team play their roles effectively and do not attempt to complete all tasks alone. Coordinators are calm, confident and mature individuals who are emotionally intelligent and conscientiousness. They are good at coordinating everyone's work since they have an overview of objectives and dynamics (Belbin, 2010: 53-54).

Shaper

The role of the Shaper is also a leadership role, but is one of a contrasting kind in respect to the Coordinator. They are extroverts with nervous energy and are driven by the need to achieve. At first sight, Shapers are the antithesis of a person you might expect to make a good team player. They challenge, argue and disagree. Rather than allowing events and people to shape their actions, they drive actions in their own direction (Belbin, 2010: 57). They are impatient and easily frustrated. Their inclination to aggression is bound to produce a reaction from other team members. However, they respond with good humor and resilience as though they have fiercely enjoyed a battle. They are extremely competitive. Winning is primary and learning secondary. If their team is doing poorly, they will question the rules or the fairness of the game. However, they do not hesitate to pursue their goals by illicit means (Belbin, 2010: 57).

Monitor Evaluator

Team leaders such as the Coordinator or Shaper are not smarter than the average, which leaves them ill-equipped to evaluate the proposals of Plants or Resources Investigators. Intellectually, Monitor Evaluators are the only people who could debate with Plants and to cause the Plants to change their standpoint, but retain their respect while doing so (Belbin, 2010: 66). Hence, the Monitor Evaluator's judgements are not clouded by emotional arguments designed to play on prejudice. They are rather slow in making up their minds, always preferring to think things over. Their strength is the ability to make sound judgements that take all factors into account. They take pride in never being wrong but are not known for originality or imagination. They are serious-minded, prudent individuals who are immune to enthusiasm. They have a low achievement orientation, or a low sense of drive. This can be seen as an advantage if drive and commitment is

considered to interfere with judgement. Their allowable weakness is that they tend to come across as dry, boring, and sometimes overcritical. They will, in addition, lack charisma and enthusiasm (Belbin, 2010: 66).

Teamworker

Since there are important but fine distinctions between the Team Roles, there is a challenge in getting a group of diverse people to work together effectively – even with a really capable Coordinator. People are often disinclined to accept the Team Role for which they may be best fitted, since someone else's Team Role may appear more attractive. This can create obstacles when those with a real ability in one area are not as assertive as others in the team (Belbin, 2010: 68). An intervention by a Teamworker enables difficult characters in the team to use their skills in a positive way and averts potential friction. (Belbin, 2010: 68-69). Teamworkers are skillful in listening to others and coping with awkward people, and who exercise an important influence on team spirit by placing group objectives above self-interest (Belbin, 2010: 69). The Teamworker is found to have the sociability scores commonly associated with extroverts but the low dominance scores of introverts. The Teamworker is a trusting and sensitive personality with a strong interest in people, especially in human interaction and communication (Belbin, 2010: 69).

Implementer

The implementer is practical, reliable and efficient. They have a natural tendency to turn ideas into action and organize work that needs to get done. Their allowable weakness is that they are somewhat inflexible and slow to respond to new possibilities (Team Role Summary Descriptions at <u>www.belbin.com</u>, 2015).

Completer Finisher

There is a need for every project in every organization to have someone who can perfect and finish it. Whilst Implementers will produce large volumes of work with great efficiency, Completer Finishers will check all the work for errors, ensuring that everything is perfect. They are perfectionists and anxious to get all things right, and can paradoxically find finishing a task very difficult - it will never seem to be quite perfect enough. What they do finish is exemplified when they add polish to a job, as they tend not to focus on bringing everything to a rapid conclusion (Belbin, 2010: 70).

Specialist

It was only after the initial research had been completed that the ninth Team Role of the Specialist emerged. The value of an individual with in-depth knowledge in a key area came to be recognized as yet another essential team contribution or Team Role. Specialists are single-minded, self-starting and dedicated. They provide knowledge and skill in rare supply. Their allowable weakness is that they contribute only on a narrow front and have a tendency to dwell on technicalities (Team Role Summary Descriptions at <u>www.belbin.com</u>, 2015). They tend to finely focus on their subject of choice and to prioritize this over the team's progress. (Team Roles in a Nutshell at ww.belbin.com, 2015).

2.2.6 Analysis structure

This section explains the structure of the analysis and how it is relates to the research question and overall purpose of the essay.

The purpose is to find a framework of decision-making in high-risk environments. Our research question is, "How do entrepreneurs handle external advisors and what effect does it have in different phases in an early stage startup company?" The different phases are ideation and industrialization phase. The different perspectives are market, product and finance. The objective for the market perspective is to reach innovators and early adopters, the product perspective looks at how to package an intangible product with something tangible and vice versa, and the finance perspective investigates how to obtain soft money. So, we want to examine how the handling process of external advisors, in terms of the adjustment of communication and role to individual and the team level interactions, affects the different objectives of the market, product and finance perspectives in different phases in an early stage startup company.

The analysis follows a similar structure as the empirical findings. Firstly, the analysis examines each advisor and the relationship between individual, communication and role.

The first step in this part will be to analyze the empirical findings from a "pilot-in-theplane" and "lemonade" principle perspective, based on the current situation often defined by uncertainty. According to effectual reasoning, as in the pilot-in-the-plane principle (e.g. in a problem space of Knightian uncertainty, goal ambiguity and environmental isotropy), the solution principle states that an entrepreneur will deal with contingency and uncertainty by refusing to trust predictions. In some parts of the analysis, where we find such instances of high risk environments with lots of ambiguity and uncertainty, we will recognize that this problem space needs to be addressed by the human factor of an entrepreneur who refuses to trust predictions. In addition, effectual reasoning, according to the lemonade principle, has a loose notion of goals and uses contingencies and uncertainties as resources for goals rather than relies on goals as decisive factors for resource acquisition. The "effectuator" leverages uncertainty by treating unexpected events as an opportunity to exercise control over the situation at hand. We will, in the analysis, look for instances where the uncertainties are looked upon as opportunities rather than obstacles.

The second step is to analyze the findings from the bird-in-hand principle. Effectual logic, according to the bird-in-hand principle, stresses startups to start with existing means and to create new effects instead of discovering new ways to achieve predetermined goals. The handling of available means in the empirical finding will be the adjustment of communication and role to individual. We will analyze the effect of the match or mismatch of communication and role in relation to the market, product and finance perspectives, respectively. The bird-in-hand, in terms of handling and focusing on the means, creates different and novel effects on commitment. This leads us to the next principle of "crazy-quilt".

The third step is to analyze the data from the crazy-quilt principle. The crazy-quilt principle suggests that first there are committed and self-selected stakeholders and that they decide direction and goals of the organization together with entrepreneur. Hence, in our analysis model that uses bird-in-hand with its focus on means, we find there is a natural contradiction with crazy-quilt, which describes the effect of focusing on means on commitment. We will analyze the overall effect of the match of communication and role to individual, and the commitment on the general perspectives of market, product and finance in ideation and industrialization phase.

After the individual relationships are analyzed the interactions on a team basis will follow at the end of each perspective. Belbin's Team Roles will be used to examine tendencies as a main source for the analysis as well as the two, latter effectual logic principles, bird-inhand and crazy-quilt. By the end of the analysis the findings are summarized in two different tables; one focusing on analyzing the empirical findings using effectual logic and a second table analyzing the individuals using Belbin's Team Roles, the terms passive vs. active and informal vs. forma as well as an analyze mixing both Sarasvathy's effectuation theory and Belbin's Team Roles on a team basis within a certain phase and with a specific perspective.

3 Empirical findings

This chapter will walk you through the empirical findings where the material describes 14 different relationships. This is done in order to investigate the handling process of external advisors in different stages in an early-stage startup.

The advisors and their part in the process are shown in the following sections, and are divided into the table below.

Modified Process Model Phases: /Resource Perspectives:	Ideation phase	Industrialization phase
Market perspective	Sara Korinski, Nora Wand and Russel Stubbe.	Michael Sider, Chris Söderlind
Product perspective	Jan Nilsson, James Norgren, Marcus Green	James Strand, John Diamond
Finance perspective	Anna Gabrielsson, Russ Porey, Joe Andersson	Lisa Lark, Anders Regert

The 14 different advisors - divided into modified process model phases and resource perspectives

We have divided the early stage of the startup into ideation and industrialization phase in order to analyze the goals that the company hoped to achieve from a market, product and finance perspective in each phase. Hence, the empirical findings are divided into six different groups of advisors as shown in the picture above. This set-up is used to make it easier to compare and analyze the material, with the hope that it can contribute to entrepreneurial management as an area of interest.

First, we will walk you through the story of how Mutewatch was founded (in chronological order) and will describe how the different advisors became engaged in the organization.

Secondly, we will describe the advisors' interactions based on Mai-Li's self-reflections.

For each advisor, we will describe the relationship in two main sections. In the first part, the relationship between individual, role and communication will be described. The advisor will be explained as formal or informal depending on how they are as a professional individual, and whether the role they had was formal or informal as well as if the communication was formal or informal. Then, the effect on commitment and on market, product and finance perspectives will be described. The first part is a result of collecting data through interviews. The material has then been summarized. The interview questions are in 'Appendix 1'. The interview structure is where we describe whether the individual was formal or informal.

In the second part, the advisor type and Team Role will be described. We will categorize the advisor type as either active (where the advisor gives advice) or passive (where the advisor mainly functions as an ambassador and door-opener). In addition, we will assign one of Belbin's nine, Team Roles to the respective advisor. The second part is a result of Mai-Li directly making self-reflections by writing her observations and perceptions of relationships and events.

At the end of the two phases, the interactions between the advisor types and the Team Roles will be described. Basically, it is paints a picture of the team dynamics.

As Mai-Li was a part of the team we will include her profile in relation to Belbin's theory as well.

3.1 The Chronological Story

"Our business school had a mentor program for the students and an startup incubator for students who wanted to found businesses. The access to knowledge probably contributed to the courage it took to start a business." -Mai-Li Hammargren, co-founder Mutewatch

Mutewatch was co-founded by Mai-Li Hammargren, who was a business student at Stockholm School of Economics at the time, Oscar Ritzén Praglowski, who was an engineering student at the Royal Institute of Technology and by Gustav Hammargren, who was still in Swedish high-school and who later came to study law at Uppsala University.

The idea arose when Mai-Li didn't want to wake up her film-photographer boyfriend who worked as a freelancer and had irregular hours. This was April 2007. The solution to this everyday problem was a vibrating wristband. The reason why Mai-Li started to think of business ideas was because of a business idea competition at the Stockholm School of Economics. The task was to find an everyday problem and to solve it. The best idea would win 50 RyanAir airline tickets. The logic behind picking an everyday problem to solve was that the solution would benefit at least one potential customer: the founder.

Mai-Li grabbed second place and didn't win the tickets, but felt inspired after interacting with both the judges and the audience at the prize ceremony. The judges advised Mai-Li to come up with an international name that explained the functionality and thus, the name Mutewatch was born. Both the idea and the name arose after input from experienced people.

One year later, in April 2008, Mai-Li decided to turn the idea into reality and reached out to the person in the jury who ran the incubator at Stockholm School of Economics. The proverb "one always fails at their first company" was frequently used. Mai-Li was motivated to start the company with the logic that it's better to fail when you are young, and that the worst thing that could happen was that she learnt something.

Mai-Li asked the manager of the incubator for a co-founder who could complement her with engineering skills and she was soon introduced to Oscar, who was the only person focusing on the concept of a physical product in a startup course. The incubator manager was also the person who mentioned where to register to become a legal entity.

"I would probably have thought twice before I answered if I would have understood how much the decision would impact my life but luckily I didn't." -Oscar Ritzén Praglowski, co-founder of Mutewatch

A first meeting was held in May of 2008 at Mai-Li's apartment. Out of the five people who attended the first meeting, Mai-Li, Oscar and Gustav self-selected themselves into the process of truly wanting to pursue the idea of founding a company and met for another meeting.

They started to search for a mechatronic engineer and found Johan Thelander, after they put up a note looking for someone with his profile at the mechatronic section at the Royal Institute of Technology. Similar to how the idea attracted Mai-Li, the founders created a competition where 500 SEK would be given to someone who was successful in building a silent, alarm clock. Johan Thelander, a mechatronic engineer with a personal interest in building alarm clocks, found the competition and applied in August 2008. When Mai-Li, Oscar and Johan met for the first time at the Royal Institute of Technology, Johan demonstrated an impressive amount of self-constructed prototypes. The prototypes were stuffed in plastic bags in IKEA lunch boxes. The founders understood that Johan was the right person for the role of building the product and that they needed to further complement the team with design skills.

The founders didn't know any industrial designers and Mai-Li therefore used Facebook to do a shout-out for a talented industrial designer. Through a common friend working at the Swedish fashion brand, Acne, Mai-Li was connected to Marcus Green, a talented industrial designer. Marcus has co-founded the design agency Norra Norr together with two other designers. When they met in September 2008, Mai-Li initially felt that Norra Norr had a passion for making concepts turn into reality, and that the brand's mentality aligned with her and Oscar's.

Oscar and Mai-Li signed up for a startup accelerator program in October 2008 and through the program they obtained useful skills on how to run a startup. Mai-Li studied business and Oscar, product design. The program gave them a common ground that made it easier to communicate.

Coming from two, different educational backgrounds it was necessary for the two founders to reach a common understanding. This was how the advisor Russel Stubbe, who ran the accelerator program, was introduced to the founders. Russel gave the entrepreneurs a crash course in what it means to work in a startup company. Among other things, he introduced the concept: "true innovation doesn't have a market", meaning that if a product or service hasn't been done before people won't know about it and therefore will not be willing to pay money for it. This course also introduced the concept of an advisory board and the concept of entrepreneurship events.

At different entrepreneurship events, Mai-Li and Oscar either met or heard about the four differently skilled people: Mernosh Saatchi who focused on market, Tomas Rudenstam who focused on law, Jan Nilsson who focused on product and Fredrik Posse who focused on finance. The founders spent great time and effort on trying to engage the individuals into a future advisory board.

When the founders were about to register the legal company by the end of 2008, they realized they needed to set up a legal board. They asked some of their talented friends to join the board: Sara Korinski, who knew many people and had good market perspectives; Jan Nilsson, who was good with finance and strategy; Martin Johansson, who was good at managing events through the student association. All of the requested board members said yes and the company was registered as a legal entity in January 2009.

The first office that the company had was in a design collective at Stureplan, in the middle of Stockholm. The company shared a room with Nora Wand, an artist who had experience with launching a lifestyle brand in American Apparel.

The year between the idea competition and the founding of the company, Mai-Li had managed an event through the student association that connected her with a number of important people in the media and marketing industry, as well as with interesting alumni. This is how she came into contact with Chris Sider, CEO and president of a Swedish fashion brand. Mai-Li maintained the network that she gained from that event, and Michael happened to be one of the people with whom Mai-Li informed about the founding Mutewatch.

Mai-Li was absorbed by making the idea a reality and after doing an elevator pitch to her neighbor, who was a CEO at a company in Stockholm, she was connected and introduced to Chris Söderlind, who founded a Swedish lifestyle brand.

The first company to inject capital into the business was the Swedish Innovation Institute. At the ceremony recognizing Mutewatch, Mai-Li and Oscar met James Norgren, the founder of a hardware company called Pacemaker, who had received the same contribution three years earlier. Based on their experience that it was tedious to keep a structure around advisors, Mai-Li and Oscar had no objections when James said he'd like to be an advisor under more loose terms. James introduced the founders to a product development partner where James Strand was the technical boss. Since Johan Thelander, the initial person building the prototype, was more junior than James, he ended up not taking as active a role and so James became an important senior advisor to complement the team.

Mai-Li was still a student at Stockholm School of Economics, and when she missed the deadline for applying for a mentor in a mentorship program she decided to reach out to Anna Gabrielsson herself. Anna was a famous entrepreneur who had gone to the same business school as Mai-Li. Anna became an important door-opener, especially since she founded a business network with poker playing among female entrepreneurs. The aim was to encourage females to participate in male-dominated businesses and networks. Through this poker society, Mai-Li met John Diamond, founder of an innovation company called Tobii Technology, who later came to sit in the board for a short period. Through this network Mai-Li was also introduced to Russ Porey, founder of Media Planet, who later came to invest and sit on the board.

3.2 The Interactions-The Entrepreneur's Self-reflections

Mai-Li Hammargren, entrepreneur

Mai-Li is an extrovert with a tendency to go and explore opportunities instead of analyzing, which makes her a resource investigator according to Belbin's definitions of Team Roles. She uses skills to find resources in unexpected ways. She is outgoing and enthusiastic and at times, and has a tendency to lose interest once initial enthusiasm has passed.

According to Belbin, a resource investigator and a plant make for a highly complementary team. Co-founder Oscar is thoughtful, clever and unique and can be labeled as a typical plant. According to Belbin, Mai-Li and Oscar therefore created a highly complimentary team, which could be one explanation as to how they managed to create extraordinary things together.

3.3 Ideation phase

The following part will focus on how the entrepreneurs handled the advisors in the ideation phase. We will define the ideation phase from the moment when the co-founders Mai-Li, Oscar and Gustav's first met in April 2008, up until the point where they closed

their first round of seed-funding in June 2010. During this time period, the product was still an idea and the prototypes had not been adopted for mass production yet. We assume that it's valuable to collect data from this period of time. The following three sections will focus on this time period from a market, product and finance perspective.

3.3.1 Ideation phase, market perspective

The ideation phase market perspective is assumed to have a goal to reach out to innovators and early adopters. This section will be based on self-reflective interviews around the handling process of the advisors Sara Koriski, Nora Wand and Russel Stubbe.

Sara Korinski, board member, ideation phase

Individual, role and communication

Sara Koriski and Mai-Li were friends from SSE. She was very talented in what she was doing and is a skillful person with a network of innovators and early adopters, which made her a great match to enable the company to achieve the goals.

As an individual Sara was informal and she had a formal role in the company. She did not enjoy reading reports or attending meetings.

At this stage, the company couldn't have had a better advisor. Mai-Li thinks that she was definitely the right person for the goal as she was creative, had strong integrity and was surrounded by a group of like-minded people. This allowed Sara to openly share her network with the company and with Mai-Li on a private level. It was a mismatch to engage her as a formal board member and it would have saved the company time and energy to keep her as an informal advisor.

The communication to Sara was mostly informal. Sara did not want to attend the meetings or read the reports. This was time consuming for Mai-Li. However, Sara had great advice and made great introductions between Mai Li and others, exemplifying that she happily shared her network. Her main challenge was that she had a hard time saying no to favors from friends.

The mismatch between Sara as an informal person and the formal role was a mistake and the time consumption and the lack of clarity could have been avoided. Sara gave the company great advice, but foremost her contacts were what was valuable to the company. Even though the mismatch in role had its costs, she contributed a big deal and in a positive way. Her overall contribution enabled the company to reach early adopters and innovators.

Advisor type and Team Role

Sara had a busy schedule and could contribute the most value by opening doors for Mai-Li. Considering the definitions in this specific thesis, we will therefore consider Sara as a passive advisor.

Sara was a teamworker per Belbin's definition of different Team Roles. She had a tendency to put the group above her own interest. She had no problem dealing with difficult people and often explained how people think for Mai-Li, giving her a deeper understanding of the situation. Sofia appeared trusting and sensitive and could often pull out important information from different people. She showed a strong interest in human interaction and communication.

Nora Wand, creative advisor, ideation phase

Individual, role and communication

The first year the company shared an office with Nora Wand. Nora was an artist and worked with an entrepreneurial lifestyle brand, American Apparel, in Sweden. Striving to create a diverse team, Mai-Li asked Nora questions.

Nora was the right individual to positively contribute to the market goal of the company in this phase. Nora managed American Apparel in Sweden, and knew how to target innovators and early adopters. Mai-Li explains that she had a positive impact on the company's ability to reach these goals.

Nora was an informal individual. She liked to talk about feelings and experiences but did not like to read reports. She was not driven by money but by the creation of value and, just like Sara, she liked to see things grow and emerge. Her skills included being very creative and having a great network. She was also experienced within strategy and marketing.

Mai-Li mentions the fact that Nora was sharing the same office as Mutewatch and could easily overhear things. Her role as an informal advisor was adjusted to her informal individual. Nora appreciated her freedom and Mai-Li recalls the fact that Nora shared the same office helped the company because she overheard many things; it was probably something that suited her informal personality.

Regarding the fit, Nora was the perfect match for the company. The informal communication and informal role in relation to Nora's informal individual affected the commitment positively. Mai-Li adds that Nora, in some cases, was "crazy committed". Her advice on both what to do and whom to contact was really helpful in reaching early adopters and innovators. Later on, the company gave Nora shares as a sign of gratitude and Mai-Li is thankful they never gave Nora a formal role.

The fact that there were no expectations and hence no over-delivering from either party nurtured the trust and maintained the personal chemistry that they had in the beginning of the relationship. The match of communication and role to individual affected the ability to reach out to innovators and early adopters in a good way. Because, to reach the target group it is very important what people initially say about the company.

Mai-Li explains that the match between Nora as a person and the communication and role she had in the company had a positive effect when it came to reaching the goals. Both Nora's advice regarding how the company should think about branding and her introductions to innovators and early adopters in the creative industry had a positive impact. She was more biased towards giving hands-on advice, while Sara gave more introductions.

Advisor type and Team Role

Nora gave strategic advice and acted as an active advisor. Nora had the role of a plant, as she had a constant stream of original ideas. She wasn't the typical manager type, which makes her a plant according to Belbin's Team Roles. In her role as an artist she was a bit of a "loner and oddball" as Belbin describes plants.

Russel Stubbe, accelerator program advisor

Individual, role and communication

Mai-Li found the startup accelerator program that Russel was managing online, and applied. Russel had a background as an entrepreneur himself, and even though he had a

formal role he connected with Mai-Li and made an informal connection with the company as well.

As an individual, Russel was the right person for the goal. The course introduced the entrepreneurs to the concepts: startup, innovators, early adopters and funding opportunities. Mai-Li recalls that this course created the strategic platform that enabled her and Oscar to do many things.

As a person, he was informal and in his profession he was more formal. When starting the accelerator program, Mai-Li recalls that Russel told them his story of how he previously had failed as an entrepreneur and how he now used his abilities in a more formal context. His skillset was in creating innovative hardware startups. His background within technology made his network biased towards innovators over early adopters.

The course had weekly meetings and so the entrepreneurs met with Russel in this formal context. Mai-Li explains that she had the habit of involving people who she wanted to know about the business through multiple channels, and Russel was one of them. Mai-Li had both informal and formal communication with Russel and since he was both a formal and informal individual, this was a fit.

The match between individual and communication had a positive impact on commitment. In addition, the commitment was one of the reasons why Mutewatch was good at branding and reaching out to their target group.

Russel had a positive impact on the company's ability to reach innovators and early adopters. He knew a wide spectrum of people. He had innovators and early adopters in his network through work; his biggest contribution was not his network but his advice. He introduced Mai-Li to the concept of entrepreneurs through a lecture about the product adoption lifecycle presented in the book, *Crossing the Chasm* (Moore, 1991).

To summarize, Russel's individual and match with the role and communication created commitment, and had a positive effect on the company's goal to reach innovators and early adopters.

Advisor type and Team Role

Russel was an active advisor and supplied Mai-Li continuously with strategic advice, both through his formal role as the manager of the accelerator program and as an informal contact.

Considering Belbin's Team Roles, Russel was a teamworker in the way he interacted with the broad variety of people within the course and in the way he genuinely was interested in people.

Team level - Market perspective

Mai-Li, being a resource investigator, created a highly complementary team together with Nora and maintained this good and efficient relationship. Sara and Russel were both teamworkers. As teamworkers enable difficult people in a group to use their skills to positive ends, this might have been one of the keys as to why the team within the market perspective worked well. Sara and Russel enabled Mai-Li, and Nora helped in realizing their full potential. All relationships worked well from a team dynamic perspective.

3.3.2 Ideation phase, product perspective

In this chapter, the positive effect from a product perspective is that the company was able to package an intangible product with something tangible. The intangible product was the Mutewatch, not yet in production. It was of great importance to package this intangible product with tangibles in order to create a whole product that customers were willing to pay for. Tangible elements that contributed to the whole product included: the team consisting of core team and advisors, the office, the renderings (digital photos), the letters of intent and the non-disclosure agreements that made dialogues and relationships more tangible. The concept of a whole product is described more thoroughly in the theory chapter. This section will be based on self-reflective interviews about the handling process of the advisors Jan Nilsson, James Norgren and Marcus Green.

Jan Nilsson

Individual, role and communication

During the accelerator program, the entrepreneurs learned the concept of an advisory board, leading to them to create an advisory board based on complementary skills. Jan had previous knowledge of how to launch new, global, consumer electronics items and represented the technological skills in the board. Jan as an individual was the right person for the product goal and was famous for doing pioneering hardware previously. The company had made big headlines when it faced bankruptcy and became rather infamous because of this. This did not make Mai-Li hesitant to ask Jan for advice; she wanted to know what he did right and wrong during his journey.

Jan had a formal role in the advisory board. The founders put great effort into establishing the advisory board.

The communication was informal and was not adjusted to Jan as an individual. Jan would probably have been of greater help to the company if formal reports, especially regarding product specifications, had been sent over.

The advisory board was something that Mai-Li felt created value, as it appeared to be something tangible. The people in the board were famous within the startup community and good from a marketing standpoint, but the alternative costs of Mai-Li's effort to pull them together made the net contribution negative.

Advisor type and Team Role

Jan was a passive advisor and contributed mostly through being an ambassador since he was known within the startup scene.

Jan's area is product concepts and as a single-minded, self-starting and dedicated individual, Jan's Team Role fits the characteristic of the specialist described by Belbin. Mai-Li couldn't give him very specific information within this area, which probably contribute to Jan not being able to be an active advisor.

James Norgren

Individual, role and communication

James Norgren was a hardware entrepreneur who was producing electronics that had many similarities with the product the company was building. Among other things, these electronics focused on lifestyle, and included software and had a similar rubber finish that the entrepreneurs were looking for. The entrepreneurs met him at an event where they received a governmental innovation grant; coincidentally that James had received three years earlier. James was definitely the right person to help the company achieve the goal of packaging intangible with tangible elements into a whole product.

He was an informal individual and even though the entrepreneur hoped to have him in a more formal role as first. They understood James, who wasn't interested in taking any more commitments at the moment. They respected his preferences and created an informal role for him. The communication was informal.

James inspired the entrepreneurs with his passionate energy. He made a valuable introduction the entrepreneurs by putting them in contact with his partner who had developed his company's electronics, who then later helped the team at Mutewatch finish the product and put it into manufacturing in Asia. Mai-Li recalls that growing the network of the company made the product feel more real and the expanding-network was a valuable, intangible asset. James had a positive impact on the company's ability to reach the goals from a product perspective.

Advisor type and Team Role

James was a passive advisor and helped Mutewatch by being a name that supported them. James gave Mai-Li the names of the suppliers that their company had used within electronics. Mai-Li reached out to the suppliers and referred to James in order to get a "warm" introduction. This probably contributed to a higher engagement among those initial stakeholders, even before the company had the funds to pay them.

Because of his expertise within product development and his characteristic of selfmotivation, James had the Team Role of a specialist according to Belbin's definition.

Marcus Green

Individual, role and communication

Marcus Green is a designer, an entrepreneur and the co-founder of the design company. The entrepreneurs bonded and "the relationship was never a traditional customer supplier" relationship as Marcus explained in an interview for a design award years later. The process of developing the product design includes strategic decisions such as making the design a larger focus than the functionality. Marcus was the first, external stakeholder who committed to the process. The design is a crucial factor of how the entrepreneurs could realize the product, and, according to Mai-Li, had a big impact on the company's goals from a product perspective.

Marcus was informal as a person, and at the same time a professional designer, which meant that he could handle both the professional, formal role as a supplier and the informal communication from the entrepreneur - despite his lack of experience in developing a product. The entrepreneurs had close contact with the design team for a long period of time.

Due to Marcus's experience of making the formal role suitable and formal, his personality allowed for him to match the role of a designer in this early stage. The relationship had a positive effect on the company goals in the long run.

Advisor type and Team Role

Marcus was an active advisor and came with great hands-on advice, on a strategic level. Among other things, he was the one who suggested Mutewatch should not to be an alarm clock, but a lifestyle product that focused on design. This later came to be one of the key selling points, and contributed to Mutewatch receiving the prestigious Red Dot Design Award.

Marcus is very clever and comes with originality and uniqueness in his ideas, making him a plant according to Belbin's definition of Team Roles. Marcus took the role as an introvert in the Mutewatch team. Marcus also represents the other two co-founders of the design agency, Norra Norr, who were both introverts.

Team level - Product perspective

The team dynamics, using a product perspective during the ideation phase, were not very good. The relationship between Mai-Li and Marcus worked very well and this is confirmed by Belbin's theory that resource investigator, which was Mai-Li's profile and Marcus, who was a plant, strongly complemented each other. The reason it worked so well on short notice was probably because Marcus has experience in this field and could easily adapt. In comparison with the market perspective, the resource investigator and plant, which both are seen to be difficult Team Roles, were not evened out with team players such as a coordinator or teamworker in the product perspective, but instead with two specialists. The communication issues and mismatch as a team might have

contributed to the fact that two of the three relationships were working suboptimal and the individual strengths could have been used more efficiently.

3.3.3 Ideation phase, financial perspective

The financial perspective during the ideation phase focuses on the effects of the financial perspective in terms of the entrepreneurs' ability to ensure external capital to the business. During this phase, the company mainly aimed to acquire private investors, scholarships and money from governmental institutions, which is summarized as soft money in the theoretical part. The advisors that we base the self-reflective interviews on are Joe Andersson, Anna Gabrielsson and Russ Porey.

Joe Andersson, financial advisor

Individual, role and communication

Joe Andersson was one of the first board members of the company and knew Mai-Li from SSE, where they were both friends who were had been team members for school group assignments. Joe had worked with a startup and at a management consult agency parallel to his studies at the time.

Joe was a good match in reaching the company goal from a financial perspective. He had a working relationship with Mai-Li and experience within the field of both entrepreneurship and financial services.

Joe was a formal individual and talented in converting informal communication into concrete action lists.

The communication was both formal and informal. The company had formal board meetings and reports. This had highly positive impact on the company's ability to reach its goals. Joe was part of the process since the beginning via informal communication because Mai-Li and Joe were, as mentioned, friends.

The match between Joe as a formal individual and the formal role (as a board member) had a positive impact. Joe was, according to Mai-Li, a present and valuable board member who took reports seriously and always cared for detailed, formal reports such as business plans.

The informal communication, even though it might be a mismatch with Joe's personality type, had a positive impact on the company's ability to achieve goals as well. In a startup, information is better conveyed in an informal setting.

Mai-Li recalls that Joe always reminded the company of the importance of formality. Mai-Li saw his observations and these reminders as valuable feedback.

The match of Joe's formal individual and formal role had a positive impact on obtaining soft money. Joe was very proud to be on the board. He put a lot of work into it and acted professionally in this position. Joe's formal individual and formal role match was beneficial for obtaining soft money when he helped Mai-Li keep the focus on the short-list, iterating the short-list, coming to a conclusion, and following the road-map.

Joe's individual was a good match with the formal role and communication, which had a positive impact on the company goals from a financial perspective.

Advisor type and Team Role

Joe was an active advisor. Joe and Mai-Li were good friends and had the experience of doing successful group assignments together at SSE. The mutual trust in the relationship probably influenced the fact that Joe was one of the individuals who gave the most strategic advice to Mai-Li.

Joe knew how to use resources and had the ability to trust his own judgment based on what was needed. Joe was calm and came with intelligent and mature input in most situations. All these personality traits made Joe a coordinator in his Team Role according to Belbin's definition.

Anna Gabrielsson, mentor

Individual, role and communication

Anna Gabrielsson is a famous, female entrepreneur who also went to SSE. Mai-Li reached out to Anna and asked if she wanted to become Mai-Li's mentor and they became good friends immediately. Anna introduced Mai-Li to her contacts through a business and poker network. The network emerged to be the key in closing the seed-funding round for the company.

Anna was the right person to have as an advisor to the company. Her involvement raised external capital in this early stage.

As a person, Anna is informal. Communication was informal with informal meetings. Mai-Li recalls that they exchanged emails, phone calls and text messages. Anna had an informal role.

The match between Anna as an informal individual, the informal communication and the many connection points through the common network had a very positive effect on reaching the goals from a financial perspective. The many connections and her informal attitude enabled Mai-Li to interact and connect with a large number of people in the industry. Mai-Li considered Anna her mentor but Anna acted more as a friend, which actually suited her and the context better. Anna had a crucial effect on how the company could ensure the seed-funding round in this phase.

Advisor type and Team Role

Anna was a passive advisor. She was an important ambassador for the brand because she allowed Mai-Li to become one of the first members of the business and poker society: Pokerface. The more experienced founders Mai-Li got to know though the society were the key to how Mai-Li found the funding for the production. Anna didn't give strategic advice on an operational level, so she was not an active advisor, even though she had an active role in Mutewatch's history.

Anna valued versatility, was a stable extrovert, had a high level of enthusiasm and was not afraid of exploring new possibilities. According to Belbin's definition of Team Roles, Anna was a clear resource investigator.

Russ Porey, advisor and investor

Individual, role and communication

Russ Porey is a seasoned self-made entrepreneur with experience in sales. His main focus had been on the global sales company, Media Planet, where he sold ads to paper magazines in an era where many magazines were becoming digitalized. Russ gave useful advice that enabled Mutewatch to close the two first rounds of capital.

Looking into Russ as an individual, he was the right person for the goal. According to Mai-Li, "He is a street-smart hustler who knows how to act if you have the odds against you". Russ is an informal individual.

The communication was informal and Russ had an informal role during the ideation phase. They would later invest in him, making him an investor in the company.

The match between Russ as an informal individual and the informal role and communication was very good. The relationship had a positive impact on the company goals in the context of a financial perspective during this phase. Mai-Li recalls that she and Russ had a good connection and his advice had substantial impact.

Advisor type and Team Role

Russ was an active advisor and very hands-on regarding how he gave advice. He often used storytelling to get the message across.

As a team member, Russ took the role as a sharper. He was very competitive and wanted to company to win no matter what it would take.

Team level- Finance perspective

The team dynamics worked well from a financial perspective during the ideation phase. Anna was good in finding situations where Mai-Li could research opportunities, Joe coordinated the efforts and Russ made Mai-Li brave when it came to the final closing of the deals. The market was tough at the time, which made the situation challenging but it was probably because of a good team that Mai-Li managed to close the funding and to take the opportunity farther.

3.4 Industrialization phase

The word industrialization stems from the hardware development industry. It is the phase where a prototype is adapted so that it can be mass-produced. The specific timeframe for the industrialization phase for the company was between June 2010 and April 2011. In June 2010, the company closed its first round of funding. In April 2011, the company got its momentum from a financial investor aiming to fund the market launch. Just like in the ideation phase, we will look at the process from a market, product and finance perspective.

3.4.1 Industrialization phase, market perspective

The industrialization phase in relation to a market perspective has the goal to prove that innovators and early adopters are willing to pay for the product once it's finished. This section will be based on self-reflective interviews regarding the handling process of the advisors Michael Sider and Chris Söderlind.

Michael Sider, informal advisor

Individual, role and communication

Michael Sider was the CEO of a global clothing brand at the time, and he also went to SSE. Mai-Li had gotten in contact with him through a project at the student association at SSE.

Michael was the right individual for reaching the goal from a market perspective. The main strategic focus for the company was to create a strong brand. Michael had successfully built a strong brand that was selling in big-name stores on a global level.

He was formal as an individual. The communication was conducted through informal meetings, emails, phone calls and text messages.

Michael had no formal role in the company. Moreover, he had informal communication that didn't suit him and had no previous experience with technology. This, in combination with a communication type that didn't suit him, appeared to cause him stress when there was a lack of formal reports.

Michael was not convinced with the potential of the company. Neither was he a "door opener with his network of innovators and early adopters. On the other hand, he gave crucial, strategic advice on how to launch the brand in key retailer stores in certain, major cities, and specifically mentioned the concept store Colette. The company later chose to launch the product in these stores. This strategy helped the company reach innovators and early adopters. Overall, the relationship with Michael had a positive effect.

Advisor type and Team Role

Michael was a passive advisor and didn't give strategic advise on a continuous basis. However, the advice he gave was valuable and Mai-Li could include him as a part of the storytelling of the company. Michael had impressive decision making ability but also was serious-minded and had a sort-of built in immunity for enthusiasm, which at times made him come across as overcritical. According to Belbin's definition of Team Roles, Michael was a monitor evaluator.

Chris Söderlind

Individual, role and communication

Chris Söderlind is the founder of a global lifestyle brand from Sweden, and was previously the founder of an event company. Mai-Li was introduced to Chris through her neighbor who was a friend of Chris's.

Because of the strategic focus of the company to have global distribution within high-end lifestyle, Chris, an entrepreneur himself, was the right person to have as an advisor.

As a professional person, Chris was a formal individual. The communication that Chris and Mai-Li had was informal.

Chris considered investing in the company for a short period of time, but concluded that he thought the product was too expensive, and declined. He didn't seem very interested to remain as an informal advisor. Although he was not involved for long, his strategic input regarding how the entrepreneurs should fund the company was crucial. Chris mentioned that the online store for the lifestyle brand Mutewatch was running was crucial, and that he thought the company should prelaunch the product there. The second tip he gave was to pre-sell the products to retailers and then sell the orders and ask distributors to pre-pay. Both of these tips were crucial to the company and were later used to get the bank to fund the orders. In hindsight, this was imperative to get liquidity in the short run.

Chris had an informal role and the communication was a mismatch with his personality. He probably would have been substantially more valuable in a formal role, but would have had a positive impact on the entrepreneurs' ability to fund the company nonetheless.

Advisor type and Team Role

Chris was a passive advisor. He gave few but valuable tips of advice. When referring to key decisions Mai-Li sometimes referred to Chris's advice, which made him an important ambassador in certain key decisions. Taking prepayment via the homepage was one suggestion Chris gave as one of these key decisions.

Chris was serious minded with an impressive decision making skill and critical approach categorizing him as monitor evaluator according to Belbin's Team Roles.

Team level - Market perspective

Intellectually, both Michael Sider and Chris Söderlind were monitor evaluators, which according to Belbin, is a Team Role that can intellectually challenge resource influencers and plants. Both advisors weren't convinced about the viability of the business model and it was hard for Mai-Li to get the commitment needed. Both Michael and Chris had tendencies that indicated that they were resource investigators in other teams. Mai-Li was a dominant resource investigator and a potential scenario could have been that they both took on a more peripheral role in this specific team. Both of them had the same role that didn't complement Mai-Li very well. The team wasn't diverse or well-functional.

3.4.2 Industrialization phase, product perspective

The industrialization phase from a product perspective had a different focus compared to the ideation phase of the same perspective. The goals of the company, from a product perspective, were to package a tangible product with intangible elements, thus creating a whole product that a customer would want to purchase. The goal of the industrialization phase was to turn the prototype into a mass-producible product. The prototype didn't exist in the ideation phase so the product was more tangible in the industrialization phase. To package the tangible product the intangible assets needed were the idea, brand and reputation (word of mouth and story of how Mai-Li came up with the idea) and customer service and events that would expand their network and community. We will focus on the handling processes of the advisors James Strand and John Diamond.

James Strand

Individual, role and communication

James Strand was the co-founder and technical engineer at the electronics partner that came to be the company's supplier during the industrialization phase. He helped the company adapt the product to so that it could be mass-produced. He was the main contact to the factory.

James was formal as an individual but used to work with startups in a high-pace environment, and could manage both the formal communication he received though the formal role as a supplier, as well as the informal communication.

One of the team members of Mutewatch was located in the same place as the supplier, which helped to increase the level of informal communication. This was crucial. It took longer time than expected to raise the money needed. However, having Johan there to engage in small talk with James and his colleagues prepared certain processes so that actions could be taken once the funding was secured. He began the process-making that allowed everyone to become familiar with what was about to happen with the company.

James had a formal role during the ideation phase.

The match between James as an individual and with the role was a fit. The communication, even when the contract was activated, was still informal.

James had a positive effect on the company's ability to reach its goals from a product perspective. Mai-Li recalls that, "activating a factory is a big thing". This is especially true since Mutewatch was a new player with small batches; it was dependent on the previous established relationships that James had. James also gave Johan advice. However, he would have had even more impact if the contract would have been activated earlier and if the company would have been able to produce more formal reports.

Advisor type and Team Role

James was an active advisor who gave strategic advice regarding product development.

He was single minded, self-starting and dedicated. He provided input on a narrow front and in rare supply, which makes him a specialist according to Belbin's definitions.

John Diamond

Individual, role and communication

James Diamond is the founder of an innovative hardware technology company from Sweden that he founded directly out of the university. Mai-Li got to know John through a business network. Mai-Li approached him and asked if he wanted to sit in the board of the company.

John might have been the right individual for the goal.

He was an informal individual. The role was informal and the communication was informal.

John did not give any advice or make valuable introductions. He did not appear to take the role seriously and the discussions revolved around what potential compensation he could get.

The time and energy spend on the relationship was not worth the output. John did not contribute with value and so the relationship had a negative effect on the company's ability to reach the product goals.

Advisor type and Team Role

John was a passive advisor. He didn't come with any direct advise but contributed with value as he was a strong name and could open doors for Mai-Li through, for example, inviting her to dinners that he hosted.

As a team member John was a resource investigator. He had a background within technology but focused his main time on engaging people and searching for funding for his company. This made him outgoing with a high level of enthusiasm.

Team level - Product perspective

James was experienced in his role and was able to perform, even when Mai-Li could give him little material concerning product, thanks to his previous experience. John and Mai-Li had a good relationship on a private level and could understand one another. However, their personalities did not complement each other, which probably contributed to the feeling that there would have been more efficient groups if they took on different Team Roles.

3.4.3 Industrialization phase, financial perspective

In the industrialization phase, using a finance perspective, the goal is to finance the operations that will turn the prototype into a mass-producible product that the market is willing to pay for. The capital assumed to be most accessible for a startup in this stage is capital from private investors, governmental grants and loans in rare occasions. The advisors that we will focus on in the section are Lisa Lark and Anders Regert.

Lisa Lark, financial bank advisor

Individual, role and communication

Lisa Lark was the bank contact to the company. She decided that she wanted to help the entrepreneurs and suggested different strategies for building partnerships with the Export Credit Institute (EKN) and the governmental loan Institute ALMI. She also helped the entrepreneurs match the investment with private investors. This was all done to mitigate the risk of the bank loan, and enable the entrepreneurs to receive one. In December 2010, they managed to do it.

Lisa was the right individual for reaching the company goal and the entrepreneurs wouldn't have made it without her.

Lisa was an informal individual. The role was formal with reports and contracts regarding bank errands. Lisa and the entrepreneurs had frequent contact regarding different updates through, phone calls, text messaging and emails, which were informal. Lisa genuinely supported the company. They were constantly in contact, but the most intense period of contact lasted for about six months, during which the entrepreneurs were closing the bank loan. Lisa had a leading role in guiding the entrepreneurs in this process. She met them at different institutions and hosted meetings with the partners. Her efforts paid off, making the relationship with Lisa a positive one for the company's ability to reach the financial goals in the industrialization phase.

Advisor type and Team Role

Lisa was an active advisor. She gave Mai-Li strategic advice on how to partner up with different institutions in order to lower the risk and get a bank loan, even when a company is in the early stage and has no revenue.

As a Team Role she was a completer finisher and was very accurate in all undertakings, ensuring that nothing was signed off before it was perfect.

Anders Regert

Individual, role and communication

Anders Regert was the founder of a corporate investment company and the main owner of a strong fashion brand in Sweden. A woman, who used to run the incubator at SSE and knew Anders privately, introduced Mai-Li and Anders to each other.

Anders was the right person for the role, as the company needed someone who was experienced within finance and who also understood branding in the design and fashion industry. He was informal as a person. The communication with him was informal and he had a semi-formal role as an adjunct board member.

There was a mismatch between Anders as an individual and the communication and role. He didn't feel committed to the company and the company could not enjoy the synergies of his skills. He did not invest his time, energy and know-how. However, he invested money in the company. He would have been able to contribute much more, had he a reason to. Given the context, he had a positive impact on the company's ability to reach their finance goals.

Advisor type and Team Role

Anders was a passive advisor and contributed with value by being a strong name that supported the company. He probably would have been an active advisor if he had received material in a format that suited him.

As a team member Anders was a coordinator with typical leadership skills, since he had the ability to oversee exercises that have a high level of emotional intelligence and confidence.

Team level - Finance perspective

The relationship with Lisa had a good dynamic. The relationship with Anders was good on an individual level; however it was not very balanced or useful to the company. The two relationships didn't effect one another directly very much. Both Lisa and Anders agreed that financial statements were missing. Lisa helped the company apply for the first bank loan, and even though she went over and beyond to make it happen, it was her job as a bank employee to support the company. Anders probably had too much going on and couldn't prioritize time to contribute in the way Lisa could.

4 Analysis

We will analyze the empirical findings in this chapter. As the foundation in this study is effectuation and in expert entrepreneur's decision making in high-risk environments this does not necessarily mean financial means, but rather assets in terms of relationships or even stories. We will perform the analysis from an effectual point of view, seeing how the entrepreneur used effectual logic when handling the advisors. Effectual logic includes different techniques that enable the entrepreneur to remain in control even when the situation is high-risk. The following chapter analyzes the empirical findings from the pilot-in-the-plane, lemonade principle, bird-in-hand and crazy-quilt principles. After the main analysis the findings are summarized in two tables.

4.1 Ideation phase 4.1.1 Ideation phase, Market Perspective

Sara Korinski

Individual, Communication and Role

Summary

Sara was the right individual for the market goal of reaching innovators and early adopters, due to the fact that she was an early adopter herself, she had network of early adopters and she gave great advice. Sara was an informal individual. In Sara's case, the communication and information flow to her was both formal and informal. This was a mismatch since she could not absorb the formal information. However, it seems as though the informal communication "replaced" the formal communication and the match of informal communication to this informal individual had a great impact on commitment. The match and the increased commitment also led to a positive effect on the market perspective because innovators and early adopters were reached. Sara was an ambassador. The role given to Sara was a formal, advisory role and this was a mismatch to her informal individual. This had a negative effect on commitment and reaching innovators and early adopters.

The Bird-in-Hand Principle

Effectual logic, according to the bird-in-hand principle, stresses that a startup should start with existing means and to create new effects instead to discover new ways to achieve given goals. We define means as communication and role. We define the end as increased commitment and improvement in market, product and finance goals. Mai-Li elaborated on existing means by adjusting the communication to Sara's informal individual. Mai-Li also experimented with available means by not adjusting the formal role to Sara's informal individual. The bird-in-hand, in terms of handling and focusing on the means, creates different and novel effects on commitment. This leads us to the next principle of crazy-quilt.

The Crazy-Quilt Principle

The crazy-quilt principle suggests that first, there are committed and self-selected stakeholders and then, together with the entrepreneur, they decide what the direction and goals should be for the organization. The following description will analyze how the application of bird-in-hand (i.e. handling and focusing on means) has created effects on and led to crazy-quilt (i.e. terms of commitment). Hence, crazy-quilt in our analysis model is a natural follow-up to bird-in-hand. The handling of means regarding the match of communication to individual had a positive impact on Sara's commitment and hence, on the market perspective of reaching out to innovators and early adopters. Sara was an ambassador. The mismatch of role to individual had a negative effect on commitment and therefore on the market perspective.

Nora Wand

Individual, Communication and Role

Summary

Nora was the right individual for the goal, due to the fact that she was an early adopter herself, she had a network of mainly early adopters and some innovators and she gave advice. Mai-Li thinks Nora's advice (the what) and the communication (the how) both helped Mutewatch reach the target group. Mai-Li reflects that Nora's advice on how Mutewatch should get into networks, and the few introductions she arranged, made for a perfect match. Just like Sara, she was an ambassador. The creative advice was more important for the goal in Nora's case than in Sara's. Nora was an informal individual. In her case, both the communication and role was adjusted to her informal individual. This affected her commitment positively. This match and the increased commitment also

positively affected the market perspective of reaching out to innovators and early adopters.

The Bird-in-Hand Principle

According to Sarasvathy, effectual reasoning according to bird-in-hand principle uses means specification rather than goal specification to achieve a new effect. Mai-Li focused on the means by adjusting the communication and role to Nora's informal individual. The effect created on commitment leads us to the next principle of crazy-quilt. Hence, in our analysis model, crazy-quilt is a natural follower of bird-in-hand.

The Crazy-Quilt Principle

The match in communication and role to Nora's individual led to an increased level of commitment from her. The match in the means and the increase in commitment led to a positive impact on the market perspective of reaching out to innovators and early adopters.

Russel Stubbe

Individual, Communication and Role

Summary

Russel was the right person for the goal since he introduced the whole framework via the book, *Crossing the Chasm*. Russel was an early adopter himself but understood both sides of the bell curve, and who also had a broad network of innovators, late majority and laggards. Russel was an ambassador to Mutewatch. In addition, his advice was crucial. Russel's role in the Sting course enabled Oscar and Mai-Li to interact with mental pictures of the bell curve in *Crossing the Chasm*, which later was helpful to them in aligning the organization and knowing how to reach out to innovators and early adopters. Russel was both an informal and formal individual. He was informal as a person but had a formal role as a teacher. The communication with him was both formal, through the program, and informal, since Russel and the entrepreneurs had ongoing informal discussions. Hence, the communication was adjusted to his individual. The match of communication and role to individual increased overall commitment. This

match of individual, communication and role had a positive impact on the company's ability to reach innovators and early adopters.

The Bird-in-Hand Principle

Effectual logic, according to the bird-in-hand principle, stresses that starting with existing means and creating new effects, instead of discovering new ways is the way to achieve given goals. Getting the available stakeholders to self-select in to the process and decide upon the goals together with those goals is preferred over setting the goals first. In regards to the handling of the advisor, Mai-Li focused on the existing means by adjusting the communication to Russel's formal and informal individual. In addition, Russel both had an informal and formal advisory role, which was adjusted to his individual. Both these fits elevated commitment. Russel was an ambassador. Hence, the novel effect on commitment and market perspective that was created focused on means that were a result of applying the bird-in-hand principle. The effect on commitment leads us to the next principle: crazy-quilt.

The Crazy-Quilt Principle

Our analysis model of the bird-in-hand, with its focus on means, has a natural consequence in crazy-quilt which describes the effect of focusing on means on commitment and market perspective. The match in communication and role to Russel's formal and informal individual increased overall commitment. The following effect of the match and the enhanced commitment on market perspective of reaching innovators and early adopters was positive.

Conclusively, Mai-Li thinks it was a combination of the individual's match to the goal (the advisor being early adopter, network and the advice) and the match of communication (the advice) and role to the individual that contributed to the market perspective of reaching innovator and early adopters. For example, both Nora and Sara's network and advice contributed to reaching the goal. In addition, both Nora and Sara and Russel were ambassadors to Mutewatch and helped create and shape the market that was yet to be defined. This in turn positively affected a market perspective of reaching out to target groups.

Mai-Li reflects that when the advisors felt that their identity fit into the context of the company, they were able to look past the lack of communication and mismatch in role

because they felt like they could still really contribute. Mai-Li elaborates: "This is often the case with super-talented people - that they have a need to contribute and have a passion for spreading their knowledge, no matter if they are treated poorly. They just want to execute what they know."

According to the crazy-quilt principle, the committed and self-selected stakeholders decide the direction and goals of the organization, together with the entrepreneur. Stakeholders destroy uncertainty by contracting commitments along certain dimensions for the future. In addition, this principle also does not assume a predetermined market and hence de-emphasizes detailed, competitive analysis in advance. Sarasyathy also stressed the market formation as a process of exploration rather than exploitation. This is in line with the advice that Russel Stubbe gave ("true innovation does not have a market"). The definition of a market formation in *Crossing the Chasm* is when a product has reached out to early and late majority. In this ideation phase, Mutewatch only reached out to early adopters and innovators. Hence, just as the crazy-quilt principle prescribes, there was no pre-determined market. Indeed, the match between Nora and Russel's as individuals matched with the goal, as they were early adopters and their networks were able to reach out to early adopters and innovators more easily. Just as the crazy-quilt principle describes, Mai-Li tried to build partnerships with committed and self-selected stakeholders such as Sara, Nora and Russel who not only became early adopters of the product but spokespersons and ambassadors as well. In addition, the match of these individuals to communication and role also contributed positively to the company being able to reach out to innovators and early adopters.

Team level - Market perspective

The team within the market perspective during the ideation phase contained only relationships that worked well. Conclusively, the relations between Sara and Mai-Li, Nora and Mai-Li, and Russel and Mai-Li were value adding and were balanced from a team level point of view. The team was strongly complementary and high performing. One possible reason for this might be that when different individuals feel that they are fitting into a larger context they can more easily find their comparative strength. If you trust that a system is working it might be easier to discover how you can complement and execute. A prominent example of this is that the market perspective was the most

comfortable for Mai-Li (she had mastery in this area), which increased the chances for her to communicate important data points for the others while it also motivated her to spend more time on the goal on an individual level.

Analyzing the data on a team level from the perspective of the bird-in-hand principle, Mai-Li has been focused on the means. She handpicked both Sara and Nora and searched (via the Internet) for Russel, in order to create the product which is defined as "new effects" within this principle. The crazy-quilt principle is also applicable as the team members adjusted according to the company needs and their own comparable strengths in relation to other team members. Moreover, Sara and Nora contributed new partnerships by making introductions for Mai-Li.

4.1.2 Ideation phase, product perspective

Jan Nilsson

Individual, Communication and Role

Summary

Jan was the right individual for the goal. He was a formal individual. The combination was informal. The role was formal. The match between the individual and role was good. The mismatch between the individual and the communication made it harder to reach the full potential of the relationship and therefore negatively impacted the product goals.

The Pilot-in-the-Plane and Lemonade Principle

We start by analyzing the relationship using the pilot-in-the-plane and lemonade principles. The uncertainty was very high in this stage, especially from the product perspective. Jan had similar experiences, as he was a first-time entrepreneur with a rather complex product, and was therefore a good match experience-wise. The formal role in the advisory board suited Jan well. Formal, more detailed reports regarding the product probably would have been better. When the communication suits the individuals we suspect that this impacts the clarity, commitment and therefore there was positive impact on the goals. The entrepreneurs remained in control, according to the pilot-in-the-plane principle, by cutting the intensity in relationships down to a minimum upon discovering that there would be no return on the relationship. As the entrepreneurs didn't leverage the entire situation, the lemonade principle is therefore not applicable.

The Bird-in-Hand Principle

By analyzing from a bird-in-hand perspective we can answer the question: Did Mai-Li use existing means available? The entrepreneurs did not know Jan from the beginning. He was a public figure but by using the Internet, Mai-Li reached out to him and got a reply. If we see the Internet as a mean and that Mai-Li executed on this available resource, then the bird-in-hand principle can be applied.

The Crazy-Quilt Principle

From the crazy-quilt and partnership perspective, the relationship didn't have much of a deep understanding, and due to the poor communication there was a lack of clarity regarding goals that made it hard for Jan to commit and to formulate new goals. For this reason, the crazy-quilt principle cannot be applied.

James Norgren

Individual, Communication and Role

Summary

James was the right individual for the product goal. He was an informal individual. The communication was informal. The role was informal. The match between the informal individual and communication and role made reaching the product goal possible.

The Pilot-in-the-Plane and Lemonade Principle

First of all, we will analyze the relationship from the principles of pilot-in-the-plane and the lemonade. These principles state the entrepreneur can remain in control even when operating in a highly insecure environment. Putting hardware into production was something new for the entrepreneurs and they operated in high uncertainty. From the beginning, the entrepreneurs would have preferred to have James in a more formal role. Even if things didn't go according to plan since James didn't want a formal role, in accordance with lemonade principle, the entrepreneurs stayed in control; in accordance with the pilot-in-the-plane principle they also reshaped the circumstances based on the understanding so that there was a match between James's role and communication. James felt that his world view was being respected when the entrepreneur shaped reality based on his needs so that there would be a match regarding the role and communication. This is illustrated by the entrepreneurs coming over to James's office for an informal meeting

over coffee. James had a deep commitment, which had a positive impact on the product goals.

The Bird-in-Hand Principle

The second approach is the use of the existing means or, the bird-in-hand principle. The company received a governmental contribution. The company that received the money was announced during a ceremony where previous "winners" were attending. Instead of only seeing the ceremony as an award ceremony, they took the opportunity to mingle, which is how they met James who was holding a speech at the even about his previous experiences. James suggested them to contact a supplier within product development and was amazed how fast the entrepreneurs followed and executed his advice.

The Crazy-Quilt Principle

The last and third approach will be the crazy-quilt and the partnership perspective. James was self-selected and had a deep commitment to the company. He set goals for the company, both individually and together with the entrepreneur, regarding different ways to work and with whom to work with. Considering these parameters we assume this situation to be a partnership where the crazy-quilt principle is applicable. James made valuable introductions to the product development partners and contributed indirectly to several "patches" in the quilt.

Marcus Green

Individual, Communication and Role

Summary

Marcus was the right person for the product goal. He was an informal individual. The communication was both formal and informal. The role was formal. The match and mismatch of informal individual, and informal and formal communication had a positive impact on reaching the product goal. The mismatch of this informal individual and formal role did not affect product goals negatively in the long run. But, it did in the short term.

The Pilot-in-the-Plane and Lemonade Principle

The first perspective, the pilot-in-the-plane and the lemonade principles, enabled the entrepreneur to remain in control of the future in high-risk environments. Marcus was a

designer and the design was the first parameter, even before prototyping, that was developed. The uncertainty was therefore high. The entrepreneurs did not have the money to pay the fee. Mai-Li and Oscar instantly had a good relationship with the designers and were easily able to come up with creative solutions how to decrease the costs and split the payments into three divisions, so that collaboration could take place. This proves that despite the obstacles, the entrepreneurs would always find solutions how to move forward. The pilot-in-the-plane and lemonade principles can therefore be applied.

The Bird-in-Hand Principle

The second perspective is bird-in-hand principle. The founders did not know any designers when starting. Mai-Li was introduced to Marcus after updating her Facebook status that she was looking for an industrial designer. By using what she had (i.e. her social network as existing means) she could find what she was looking for. The bird-in-hand principle is therefore applicable.

The Crazy-Quilt Principle

The third perspective is the crazy-quilt concept. There was a deep understanding between the Marcus and the entrepreneurs. Both parties set goals, individually and together, and communication was adapted so that it would match with Marcus's. Marcus was very used to working in formal roles, and even if he was an informal person in this context he was still a fit. Marcus was very committed and gave the project everything he could. His commitment and experience drastically lowered the risk mentioned in the first perspective.

Team level - Product perspective

On a team level, using a product perspective during the ideation phase, the two relationships between Mai-Li and the specialists, Jan and James, did not work efficiently. One of the reasons why there was still team balance and the team from a product perspective managed to create great results, in terms of an attractive product, is probably because the relationship with Marcus worked so well. The lack of proper communication about the product features was much more damaging to the relationships with the specialists. Marcus was a resource investigator, just like Mai-Li, and managed to find ways to make Mai-Li and the rest of the team express themselves, e.g. through workshops that highlighted the fact that Mai-Li had never developed a product before.

Normally, complementary Team Roles create a team that is highly productive. However, with lacking communication skills it was crucial to have an individual like Marcus to create an efficient team.

From a bird-in-hand perspective, the three advisor relationships were intangible products from different parts of Mai-Li's network. She focused on using what she had in order to create new effects, therefore making this principle applicable. From a crazy-quilt perspective, the three individuals came from different backgrounds and tried to adjust their roles on a team level. James also opened the door to the factory, which became an essential partner to the company.

4.1.3 Ideation phase, Finance Perspective

Joe Andersson

Individual, Communication and Role

Summary

Joe was the right individual for the goal of obtaining soft money. Joe was a formal individual. The communication was both informal and formal. Joe had a formal role. The match of the formal individual and the formal communication had a positive impact on obtaining soft money. The mismatch of the formal individual and informal communication unexpectedly had a positive impact on obtaining soft money. According to Mai-Li, due to the complex context and the fact that you can't write everything on a paper, the informal communication was a crucial complement to the formal one. Having both the formal communication with structured feedback and small informal iterations was very helpful because one needs both feedback and support. Joe was committed, which had a positive impact on obtaining soft money.

Pilot-in-the-plane

According to the pilot in the plane principle, in a problem space of Knightian uncertainty, goal ambiguity and environmental isotropy, we need an entrepreneur to deal with contingency and uncertainty by refusing to trust predictions. We can see in Joe's case that the context is complex. Mai-Li refused to trust predictions that formal individuals should be treated with formal communication and took the unusual route of only slightly

adjusting communication with Joe. The outcome of this maneuver is considered to have a positive effect on market dimension.

Lemonade

Effectual reasoning according to the lemonade principle has a loose notion of goals. The effectuator leverages uncertainty by treating unexpected events as an opportunity to exercise control over the situation at hand. In Joe's case, instead perceiving the complex context with a high level of uncertainty as a hindrance, Mai-Li treated the circumstances as opportunities and complemented the formal communication with an informal one.

The Bird-in-Hand Principle

Effectual logic, according to the bird-in-hand principle, stresses starting with existing means and creating new effects instead of discovering new ways to achieve given goals. In Joe's case there was both formal and informal communication. Mai-Li and Oscar slightly adjusted the communication to Joe's formal individual, but due to the complex context, Mai-Li thought the informal communication was a crucial complement to the formal one. Mai-Li appreciated that they used formal communication when structuring feedback and small iterations. Doing this was very helpful because you need feedback, looping and support to have good formal communication. Here, we can see that in the handling of the advisor there was both a match and mismatch of the means in relation to communication to the individual. Both these points had a positive impact on the market perspective of obtaining soft money. So, we can see that just as the bird-in-hand principle prescribes, Mai-Li experimented with the existing means by simultaneously adapting and not adapting communication to Joe's formal individual. The effect from the two ways of handling the advisor in the market perspective is overall positive. In terms of role, Mai-Li adjusted the role to Joe's formal individual. This had a positive impact on the market dimension. Hence, Mai-Li again used the means available and certain effects were created as a result of that.

The Crazy-Quilt Principle

The match and mismatch of the communication to individual had a positive impact on Joe's commitment. So here, we can see a crazy-quilt is a result of bird-in-hand since Mai-Li's experimentation and focus on means, with both adjustment and non-adjustment of communication to individual, led to commitment. We can also deduce that crazy-quilt is

a result of the lemonade and pilot-in-the-plane principle when we observe that commitment came as a result of Mai-Li leveraging a complex context as opportunity and complementing the formal communication with the informal one. The strong commitment had a positive effect on the finance perspective.

Anna Gabrielsson

Individual, Communication and Role

Summary

Anna was the right person for obtaining soft money. Anna was an informal person. Communication was informal. Anna had an informal role. The match of Anna's informal individual, the informal communication and informal role was crucial for obtaining soft money.

The Bird-in-Hand Principle

The bird-in-hand stresses creating something new with existing means rather than discovering new ways to achieve given goals.

In Anna's case, both the communication and role was adjusted to Anna's informal individual. This had a positive impact on the market dimension. In accordance with the bird-in-hand principle, Mai-Li expanded the means by adapting the communication and role to individual. This in turn created profound and crucial effects on finance perspective.

Russ Porey

Individual, Communication and Role

Summary

Russ was the right person for the goal. Russ was an informal individual. Communication was mostly informal. Russ had an informal role. Mai-Li reflects that "We had a good communication and he liked his role. He invested a lot of time for many years. His commitment was very good". The match of Russ's informal individual, informal communication and informal role had a positive effect on obtaining soft money.

The Bird-in-Hand Principle

Effectual logic, according to the bird-in-hand principle, stresses starting with existing means and creating new effects instead of discovering new ways to achieve given goals. Similar to Anna's case, Mai-Li adjusted the communication and role to Russ as well and used existing means to create an effect. The impact on finance perspective was positive.

The Crazy-Quilt Principle

Since there was a match of means to individual, Russ seemed to understand the communication and role. This made him committed. This commitment could be interpreted as having a positive impact on finance perspective and on obtaining soft money. Hence, just as the crazy-quilt principle prescribes, the match in means contributed to commitment. This affected obtaining soft money positively and in a way, we can see that the increase in Russ's commitment contributed to passively deciding the direction and goals of the organization. In addition, the crazy-quilt principle can be used together with the bird-in-hand principle in stressing means-driven, rather than goals-driven action. Here, we can see that the active focus on existing means helped shape and create the effect on finance dimension.

Team level - Finance perspective

On a team level the relationships between Mai-Li and Anna, as resource investigator, and Mai-Li and Russel, who was a sharper, worked well. The commitment and team balanced were considered good. The communication and understanding was on a high level that made people want to stay and continue to contribute. The relationship between Joe and Mai-Li also worked well. The results from a financial point of view enabled the team to take it further, but were not very impressive in general. One of the reasons for this was probably the economic environment and the capital market at the time. Another reason is the fact that Mai-Li had no previous experience in running a company of that size. Looking at it from that point of view, the high-performing team and working relationships were probably the reason why Mai-Li succeeded in raising money.

Analyzing the data on a team level from an effectual logic perspective, we observe that Mai-Li put together the team based on the connections that she had: she re-assigned Anna as a mentor, contacted Russel via the poker society that Anna founded, and re-connected with Joe though her school. This makes the bird-in-hand perspective applicable. The

individuals adapted to each other on a team level and introduced Mai-Li to people outside the aforementioned group. Russel, for example, introduced Mai-Li to other potential investors, which made the crazy-quilt principle applicable.

4.2 Industrialization phase

4.2.1 Industrialization phase, market perspective

Michael Sider

Individual, Communication and Role

Summary

Michael was the right individual for reaching the goal. He's a formal individual in his professional role. Communication was informal. He had an informal role. In terms of the area of mismatch, Michael's formal individual and the informal information were not synchronized. Despite the mismatch of the individual to communication and role, Michael helped Mutewatch reach early adopters and innovators, which is because he was "the right person to contact". So Michael was the right person for the goal. But there was a mismatch of communication and role to individual. Mai-Li explains: "The match of the person is stronger than the mismatch of communication and role to individual. Mai-Li explains: "The match of the goal in terms of network and advice is more important than individual's match with communication and role. In conclusion, he contributed but he could've contributed even more. So the advice matters more than the ways of communication. *What* you say is more important than *how* you say it. The mismatch of the formal individual and informal role affected the market goal negatively.

The Bird-in-Hand Principle

In Michael's case there was a mismatch in the informal communication to his formal individual. The lack of reports caused him to misunderstand the concept, the idea and the informal communication. This affected his commitment negatively. Despite this fact, we can say that Mai-Li focused on elaborating on existing means. The interesting thing here is that the affects created on commitment and the general market perspective is different from Joe's case. Whereas in Joe's case the match and mismatch of communication leads to commitment and positive impact from a finance perspective, but the same non-

adjustment of informal communication to Michael's formal individual leads to negative effects on commitment in a market perspective. The defining difference between Joe and Michael's case is that in the former the informal communication is a complement to the formal one, whereas in the latter case there was only informal communication. Perhaps the complementarity of formal and informal communication to formal individual is what differentiates the effect created and the outcome on commitment as well as the overall perspective. Here, we can really see that when experimenting with existing means, in light of communication, there is a greater chance that it will lead to novelty in the effects created, and that there are different outcomes depending on how you experiment with the means. In addition, Joe's case there was also a complex context. Furthermore, there might be differences in the effects depending on what perspective (market or finance) the advisor is viewing from. There was a mismatch in the informal role to Michael's individual, which affected market perspective negatively. So the outcome created is expected. Just as in Joe's case, the match of role to individual creates a positive impact on perspective. We can therefore say that the mismatch of role to Michael's individual has a negative effect on the perspective.

The Crazy-Quilt Principle

The Bird-in-hand principle, with its focus on means that create new effects, has a natural impact on crazy-quilt in terms of the effects on commitment. Moreover, the effects on commitment vary depending on how the entrepreneur chooses to experiment with the means. Hence, the effect of the mismatch of communication and role to Chris's individual had a negative impact on his commitment.

Chris Söderlind

Individual, Communication and Role

Summary

He was the right person to help the company reach its goals. In his professional role, Chris is a formal individual. Communication was informal. It was the actual advice that Chris gave more than the way of communication which was informal and that helped the entrepreneurs to reach innovators and early adopters. He had an informal role. Concerning the mismatch of the formal individual and informal communication, Mai-Li thinks that Chris could have done a lot more: "Similar to Michael Sider, Chris contributed because he was right for the position. Also similar to Michael Sider's advice on Colette, Chris Söderlind's advice on distributors and retailers made Mutewatch reach out to innovators and early adopters, despite the mismatch of the individual to communication". So, the advice is again more important than the ways of communication. Mai-Li believes that if the communication would have been formalized and adapted to Chris's formal individual then it would have made it easier for Chris to commit. This would have helped Mutewatch to reach out to early adopters and innovators. Despite the mismatch of formal individual to informal communication, the crucial advice that Chris gave was actually during an informal meeting; the advice and the informal communication helped reaching the market goal. The mismatch of formal individual and informal role affected market goal "not positively". He could've contributed way much more if he would've had a formal role, and a better informal connection.

Pilot-in-the-Plane Principle

Mai-Li implicitly suggests that at this phase the problem space is similar to an effectual one in a high-risk environment with a lot of ambiguity. She feels that formal individuals with causal reasoning will have problems adapting: "These guys aren't use to high-risk environments, they will be stressed and stress the ones who can handle ambiguity." Just as the pilot-in-the-plane principle suggests, the entrepreneur acts as the window to opportunity and provides the key to outliving disasters. Mai-Li dealt with uncertainty by refusing to trust the predictions of formal individuals such as Chris.

The Bird-in-Hand Principle

Effectual logic, according to the bird-in-hand principle, stresses starting with existing means and creating new effects instead of discovering new ways to achieve given goals. In Chris's case, Mai-Li focuses on means by experimenting more than the adjustment of the communication to individual. In addition, the role was not adjusted to the individual. The effect created on commitment and market perspective is similar to Michael Sider's case, which is negative.

Just as in Michael Sider's case, Chris Söderlind had difficulty committing because he did not understand the style of communication. Mai-Li explains that, "I definitely believe that if we would've been able to put the idea in front of him in a logical way, I probably would've persuaded him more easily; he couldn't see it so he couldn't connect". Mai-Li believes that if the communication would have been formalized and adapted to Chris's formal individual then it would have made it easier for Chris to commit. This would have helped Mutewatch to reach out to early adopters and innovators.

However, just as in Michael Sider's case, despite the mismatch of the individual to communication, Chris Söderlind's advice on distributors and retailers made Mutewatch successful in reaching out to innovators and early adopters. Hence, the advice was more important than the way of communication on the market perspective. So, despite the mismatch of communication that led to less commitment, the advice rather than the way of communication was what had a positive impact on market perspective.

The Crazy-Quilt Principle

Just as mentioned above, crazy-quilt is a natural follower of bird-in-hand in terms of how the focus and experimentation of means leads to effects on commitment.

Team level - Market perspective

On a team level the team dynamics can be considered bad during the industrialization phase with a market perspective. Both the relationships between Mai-Li and Chris Söderlind and Chris Sider had a lack of commitment. They were both monitor evaluator and could challenge Mai-Li as a resource investigator which made the advise that they gave still very valuable to the business. They were not convinced about the business model and team with a lack of commitment as a consequence. The relationships took much energy from Mai-Li as the entrepreneur.

Analyzing the team level data from an effectual logic effectuation and the bird-in-hand principle was applied in both cases how Mai-Li found them; through an introduction by her neighbor and through a previous project. The crazy-quilt principle was however not applicable in neither of the two cases.

4.2.2 Industrialization phase, product perspective

James Strand

Individual, Communication and Role

Summary

The communication was both informal and formal. WSI, the company James was working with had a formal process and had conducted preliminary research to become a supplier. James, along with his CEO (who was very supportive) and Johan, a Mutewatch team member, had a desk at the WSI facility - both contributing to informal communication.

The Pilot-in-the-Plane and Lemonade Principle

To start off, we will be analyzing the relationship with James using the pilot-in-the-plane and lemonade principles. James was the right person for the position. With the formal individual it would have been better to activate the contract earlier. When the funding process took longer time than expected, the team member Johan moved to the supplier where James worked. This way, Johan could handle the informal conversation equally as good as formal communication, and could start working with James before the formal contract started. From this perspective, the lemonade principle is applicable as Mai-Li leveraged the unexpected. Having Johan at this office created several synergies, one of them being that he formed a close relationship with James. Making sure to have close relationships with the desired people is a great way of staying in control; the pilot-in-theplane perspective can therefore be applied here.

The Bird-in-Hand Principle

The next step is to analyze the relationship based on the bird-in-hand principle. Mai- Li and Oscar were introduced to James Strand though James Norgren. James and his company, WSI, was the only electronics partner at the time for Mutewatch. Seen from a limited means perspective, the bird-in-hand principle is applied.

The Crazy-Quilt Principle

At last, we analyze the relationship based on the partnership or crazy-quilt principle. James was hired by a supplier and once the contracts were signed, James had both an informal and formal role as well as formal and informal communication. This as James seemed indifferent in the specific formats of the role and communication and even though he might have preferred informal seemed understanding based on previous experience which made it a fit on bot role and communication. This created clarity and commitment between the company and James, which positively impacted the product goals; the product consisting of the packaging of both tangible and intangible elements.

John Diamond

Individual, Communication and Role

Summary

John had the wrong attitude and didn't seem to respect the business and was therefore not a good fit. Most of the energy invested into this relationship was spent on transaction costs, such as discussing stock options.

The Pilot-in-the-Plane and Lemonade Principle

In this part, we are analyzing the relationship with John Diamond from using the pilot-inthe-plane and lemonade principles. When the relationship began not to work, Mai-Li ended the relationship and made the effort to separate as friends. We assume that Mai-Li remained in control, even though the relationship didn't turn out to be value-adding; the pilot-in-the-plane theory can therefore be applied. The founders took the relationship as a learning experience for the future. From this perspective, the lemonade principle can be applied as well.

The Bird-in-Hand Principle

Mai-Li knew John from a business and poker network where he was the only one handling hardware. Mai-Li used the network she had and tried to leverage the potential possibilities. From this perspective the bird-in-hand principle is applicable.

The Crazy-Quilt Principle

When looking at the relationship with John from a crazy-quilt perspective, there is not much of a match regarding role and communication, which caused uncertainty about the goals, level of commitment; there were no goal initiatives from John. We consider that no value was added to the company. The crazy-quilt principle is not applicable to the relationship with John.

Team level - Product perspective

Analyzing the data on a team level the team dynamic point of view could be considered bad during the industrialization phase with a product perspective. James was a specialist and John was a resource investigator just like Mai-Li. James was professional and committed as a paid advisor. John was not committed at all. James contributed with value. The relationship with John was not value adding to the company.

Analyzing the data on a team level from a perspective of the effectuation theory both advisors were found with a effectual logic. Mai-Li met John through her poker society and James through the introduction of the advisor with the same name in the ideation phase. Effectual logic, and crazy-quilt principle, could be applied on the relationship with James and he was committed but however not on John who didn't feel committed.

4.2.3 Industrialization phase, Finance perspective

Lisa Lark

Individual, Communication and Role

Summary

Lisa was very crucial for obtaining soft money because she was the one who "made the dominos fall in the end". Lisa was her normal job, but chose to take on some extra risk. Lisa also helped Mutewatch connect with financial partners/institutions such as Exportkreditnämnden (EKN), who covered half the risk of the loan based on Mutewatch's orders. Both Lisa's advice and network had a positive effect on the finance perspective. Lisa also convinced ALMI (a governmental lender supporting high-risk entrepreneurship) to get on board. Lisa was an informal individual. The communication was mostly informal but also formal. Mai-Li recalls: "We met her in a formal setting, but it was very informal the way that we communicated. Lisa was an internal ambassador and was passionate about helping us succeed". Lisa had two roles, as Mutewatch's contact person at the bank and an advisory role, which was very informal.

The Bird-in-Hand Principle

Effectual logic, according to the bird-in-hand principle, stresses starting with existing means and creating new effects instead of discovering new ways to achieve given goals. Mai-Li definitely elaborated on existing means when she adjusted the communication

and role to Lisa's informal individual. The effects created on commitment are unambiguous as the next chapter will show. In addition, Lisa's advice and network had a positive effect on the finance perspective in regards to the match of communication and role to individual. Here, just as with Michael Sider and Chris Söderlind, we can see that the match of the individual with goal, in terms of advice and network, is more important (or at least equally important) as how the individual matches with communication and role.

The Crazy-Quilt Principle

The informal dynamics of the relationship with the informal individual, communication and role induced a sense of trust and enhanced personal chemistry, which convinced Lisa to work with them. So, the effect on commitment is positive. This in turn resulted in Lisa going outside her mandate, and to push boundaries. According to Mai-Li, entrepreneurship is about creating new markets and pushing boundaries and this is why these passionate internal ambassadors are so important. We can see that Lisa believed in the concept, in a similar way that Nora and Sara did, and that together they all proved their commitment and became ambassadors for Mutewatch. The difference is that the objective of the market and finance perspectives is not the same. In Nora and Sara's case, the ambassadorship and commitment made Mutewatch reach out to early adopters and innovators. In Lisa's case, her engagement made Mutewatch obtain soft money. But, the effect on these two perspectives is the same: positive.

Anders Regert

Individual, Communication and Role

Summary

Anders is a formal individual. Mai-Li got to know him on a more informal basis, which is why he changed from this initial role. Since he invested in the company more by force than will, and due to persuasion from Mai-Li, Anders only invested his money rather than his time, energy and know-how.

In addition, the mismatch of Anders's formal individual and his informal role was also crucial for him to invest money, because he did not want to have a formal role and invest time and energy as well. Anders did, despite his lack of commitment time, energy and knowledge, want to set goals for the finance perspective and make requirements on the reporting system.

The Bird-in-Hand Principle

Effectual logic according to the bird-in-hand principle stresses starting with existing means and creating new effects instead of discovering new ways to achieve given goals. Communication and role was not adjusted to Anders' formal individual. Just as bird-in-hand prescribes, Mai-Li used existing means and the effects created are varied.

The Crazy-Quilt Principle

Similar to the formal individuals, Michael Sider and Chris Söderlind, there was a mismatch of Anders's formal individual to informal communication. This affected the commitment negatively. Mai-Li elaborates: "Since these people were very negative, complained and did not passionately commit, it would probably have been better to have someone who believed in the project. But, Anders did invest soft money into the company, so, in a way, he contributed positively". Mai-Li believes that the ultimate driver in the finance perspective for obtaining soft money was her own power of persuasion. In addition, the mismatch of Anders formal individual and his informal role was another factor as to why he invested money; he did not want to have a formal role and to commit his time, energy and knowledge. This was due to the fact that he did not understand the concept. In comparison, James Norgren, who also was an informal advisor and had passion and a personal chemistry very the entrepreneurs, had a clear understanding about the purpose and goal of Mutewatch, which led him to trust Mutewatch. He therefore could commit and contributed with time, energy and knowhow, but not money. He also helped set the organizational goals together with Mai-Li.

According to crazy-quilt, it is the committed stakeholders that get to decide the direction and the goals of the organization together with the entrepreneur. According to Sarasvathy, "In fact, effectuators do not choose stakeholders on the basis of preselected ventures or venture goals; instead, they allow stakeholders who make actual commitments to participate actively in shaping the enterprise" (Sarasvathy, 2008). Furthermore, input from stakeholders who actually make commitments to the venture should be taken into account without regard to opportunity costs, since possible stakeholders may or may not come on board later (Sarasvathy, 2008). wanted to set the goals. James, on the other hand, had the inverse relationship and committed time, energy and knowledge but not his finances. He also aided in setting the organizational goals with Mai-Li. Mai-Li concluded in the interview that, just as crazy-quilt prescribes, the committed ones are the ones that get to set the goal with the entrepreneur. So here, we can see that for the cases of Anders and James crazy-quilt is an appropriate description of commitment and goal-setting as it is the committed people that get to set goals.

Sarasvathy states that commitments from key stakeholders destroy uncertainty by contracting specific dimensions of the future; as the stakeholders act on those contracts and the network grows, the future begins to look like the contracts agreed upon (Sarasvathy, 2008). The future is hence not set but emerges out of the interactions of contracting between the entrepreneur and the stakeholders. James's commitment destroyed uncertainty and as a result, he designed goals with entrepreneur. Anders's lack of commitment time, energy and know-how amplified uncertainty and proved that he was not fully committed, despite that he wanted to set goals. This had a negative effect on the finance perspective. In conclusion, we can see that Anders's financial investment was positive for the finance perspective whereas James's commitment time, energy and know-how was positive for the product perspective. So, the different types of commitments both had positive effects on the two different perspectives.

Team level - Finance perspective

Looking at the empirical data from a team level perspective during the industrialization phase with a financial perspective the team dynamics was average. Lisa had a high commitment but Anders did not. Lisa was an active completer and Andres was a passive coordinator.

Mai-Li noticed that Lisa was very helpful and engaged in the project during bank meetings and Anders was introduced to Mai-Li through a common contact through the university incubator. Analyzing the data from a effectual logic both advisors were engaged from the start with a logic that fits bird-in-hand principle. Mai-Li sensed the kind of commitment from Lisa, which made the crazy-quilt principle applicable. Since Anders was not very committed the crazy-quilt principle was not applicable in his case.

Analysis overview

The following tables are overviews of the analysis. The first table (Table 1) provides an overview of the relationship between individual, communication and role and gives a summary of how the effectuation principles are applied. The rows section provides the applied theories while the columns section entails the Modified Process Model with two phases and three perspectives. There are therefore six columns. The advisors are summarized by first name per phase and perspective. The abbreviation "E." stands for "entrepreneurs".

We can see that what stands out in Table 1 is that when communication and role is adjusted to individual, there is a positive impact on commitment and perspective goals, as in Nora and Russel's case. When communication and role is not adjusted to individual, there is a negative impact on commitment and perspective goals, as in Michael and Chris' case. However, when there is a mixture of adjustment and non-adjustment of communication and role to individual, the effect on commitment and perspective goals is ambiguous: sometimes it's positive as in James' case, sometimes it has two effects, positive and negative, as in Sara's case.

The second table (Table 2) walks through the analysis of the individual relationships as well as the analysis on a team level in terms of advisor type and team role. The rows section entails the applied theory in terms of effectuation and Belbin's Team Roles. The columns section deals with a certain perspective; market, product or finance, and within a certain time phase; ideation phase or industrialization phase. The abbreviation "Eff" stands for "effectuation" and "Cau" stands for "causation". The abbreviation "Pass" and "Act" stands for the advisor types "passive" and "active". The abbreviation "TW" stands for the Team Role "Teamworker", "P" stands for "Plant", "S" stands for "Specialist", "C" stands for "Coordinator", "RI" stands for "Resource Investigator", "ME" stands for "Monitor Evaluator" and "CF" stands for "Completer Finisher".

We can see what stands out in Table 2 is that when effectuation is applied and the team involved was diverse the likelihood of creating a good result was the highest. With team we include the entrepreneur who was a Resource Investigator (RI) and the advisors who had strongly complementary roles such as Plant (P), Coordinator (C) and Teamworker (TW). Even though the advisor Anna had the same profile, RI, as the entrepreneur, her

experience complemented the younger entrepreneur. When we say complementary team we do not only mean skillset but also a mixture of active, meaning strategic advisors, and passive, in terms of door-openers. When causation was applied the result was bad in the case study. However, in some cases the fall-out was still average thanks to strongly effectual individuals with a commitment and experience that compensated other individuals in the team.

Modified Process Model	Ideation			Industrialization		
Applied Theory	Market	Product	Finance	Market	Product	Finance
Pilot-In- the-Plane		Jan: E. remain in control despite uncertainty. James: E. stay in control despite uncertainty. Marcus: E. stay in control despite high risk.	Joe: E. refuse to trust predictions by not adjusting com. to individual.	Chris: E. refuse to trust predictions regarding formal individuals	James: E. stay in control by having good relationship s. John: E. remain in control by ending relationship	
Lemonade		James: E. stay in control despite uncertainty. Marcus: E. stay in control despite high risk.	Joe: E. treated complex context as opportunit y.		James: E. leverage the unexpected. John: E. took the bad relationship as a learning experience.	
Bird-in-the- Hand (elaborated with existing means)	Sara: E. adjust com. and not adjust role or individual. Nora: E. adjust com. and role to individual. Russel: E. adjust com. and role to individual.	Jan: E. not adjust com. and adjust role to individual. James: E. adjust com. and role to individual. Marcus: E. adjust and not adjust com. to individual. Not adjust role to individual.	Joe: E. adjust and not adjust com. to individual. Adjust role to individual. Anna: E. adjust com. and role to individual. Russ: E. adjust com. and role to individual.	Michael: E. not adjust com. and role to individual. Chris: E. not adjust com. and role to individual.	James: E. adjust and not adjust com. to individual. Adjust role to individual. John: E. adjust com. and role to individual.	Lisa: E. adjust com. and role to individual. Anders: E. not adjust com. and role to individual.

Crazy Quilt (effect on commitmen t)	Sara: Positive/Negati ve Nora: Positive Russel: Positive	Jan: Negative/Positi ve James: Positive Marcus: Positive	Joe: Positive Anna: Positive Russ: Positive	Michael: Negative Chris: Negative	James: Positive John: Negative	Lisa: Positive Anders: Negative
Affordable						
Loss Effect on Market Goal	Sara: Positive/Negati ve Nora: Positive Russel: Positive			Michael: Negative Chris: Negative		
Effect on Product Goal		Jan: Positive James: Positive Marcus: Positive/Negati ve			James: Positive John: Negative	
Effect on Finance Goal			Joe: Positive Anna: Positive Russ: Positive			Lisa: Positive Anders: Negative/Positi ve

Table 1 Analysis Overview of Individual, Communication and Role

Modified	Ideation			Industrialization		
Process Model / Applied Theory	Market	Product	Finance	Market	Product	Finance
Bird-in-the- Hand	Sara: Eff Nora: Eff Russel: Eff	Jan: Cau James: Eff Marcus: Eff	Anna: Eff Russ: Eff Joe:Eff	Michel: Eff Chris: Eff	James: Eff John:Cau	Lisa: Eff Anders: Eff
Crazy Quilt (commitment)	Sara: Eff Nora: Eff Russel: Eff	Jan: Cau James: Eff Marcus: Eff	Anna: Eff Russ: Eff Joe: Eff	Michel: Cau Chris: Cau	James: Eff John: Cau	Lisa: Eff Anders: Cau
Advisor Type and Team Role	Sara: Pass TW Nora: Act P Russel: Act TW	Jan: Pass S James: Pass S Marcus: Act P	Joe: Act C Anna: Pass RI Russ: Act S	Michel: Pass ME Chris: Pass ME	James : Act S John: Pass RI	Lisa: Act CF Anders: Pass C
Team Level Interations per Perspective	Good	Average	Good	Bad	Bad	Average

Table 2 Analysis Overview of Advisor Type, Team Role and Team Level Interactions

We hope that the overview will make it easier to follow the conclusion below.

5 Conclusion

The main purpose of this thesis is to investigate a framework that supports entrepreneurial management so that entrepreneurs can make better, strategic decisions in high-risk environments. This creates value to the entrepreneurship ecosystem and the economy, and world as a whole. The method has been illustrated by how the entrepreneur makes decisions when handling external advisors. Our research question is "How do entrepreneurs handle external advisors and what effect does it have in different phases in an early stage startup company?"

Individual, Communication and Role

We have, in this thesis, used effectuation theory as our analytical structure in order to lay the ground for analyzing the empirical data. We have, in a consecutive order, used the pilot-in-the-plane and lemonade principles to address the uncertainty and ambiguity in a high-risk environment. Secondly, the bird-in-hand shows how the entrepreneur has focused on existing means by handling advisors with the adjustment of communication and role to individual. Lastly, the crazy-quilt shows that it is the committed and selfselected stakeholders, together with the entrepreneur, who decide which direction and goals of the organization. Ultimately, we have analyzed the impact that the match or mismatch between communication and role to individual and the level of commitment, has had on the overall perspectives of market, product and finance.

Starting with the pilot-in-the-plane and the lemonade principle we find evidence to support this principle in several phases. For example, in the ideation phase-finance perspective, Joe Andersson's case has a "complex context" so these principles are applicable; in the industrialization phase-market perspective, Chris Söderlind's case shows "a high-risk environment with a lot of ambiguity" and so these principles were also valid.

If we go on to the bird-in-hand principle, we can see that all six chapters focus on the means to create new effects, which has taken its form when the entrepreneur has experimented with, adjusted, or made no adjustments to the communication and role to individual. The effects were felt both on commitment and the overall perspective. When there has been a match of communication and role to individual, this has affected the

market, product, and finance perspectives positively. If there has been a mismatch, in regards to individual, the impact on the perspectives has been negative. For example, in ideation phase-market perspective, the entrepreneur adjusted the communication and role to Nora Wand's informal individual, which this resulted in a positive effect on commitment. Contrastingly, in industrialization phase-market perspective, the entrepreneur did not adjust the communication and role to Michael Sider's formal individual, which decreased his commitment and resulted in a negative effect. However, in Michael's case, his advice rather than the mismatch of means to individual, contributed to reaching the market objective of reaching innovators and early adopters.

With the crazy-quilt principle, we see that focusing on means according to the bird-inhand principle has different effects on commitment. Generally, if there has been a match between communication and role to individual then there has been increased commitment and if there has been a mismatch in the means to individual then there has been decreased commitment. The examples of Michael Sider and Chris Söderlind in industrialization phase-market perspective and of Anders Regert in industrialization phase-finance perspective were clear-cut cases where we see that formal individuals could not understand the informal communication and hence did not believe in the concept. This affected their commitment negatively. One exception to the theory that match of communication to individual leads to increased commitment is shown in the ideation phase-finance perspective with Joe Andersson; the entrepreneur complemented the formal communication with informal communication, which led to increased commitment. We speculate that it is the complementarity of these two types of communication styles (i.e. the focus on means) that leads to novel effects on commitment.

We have also seen that there is a difference in the type of commitment in respect to different advisors across different phases and perspectives. For example, in ideation phase-product perspective, James Norgren had commitment, time, energy and know-how to contribute positively towards the objective of the product perspective. This objective was the product, namely the packaging of intangible with tangible elements into a whole product. Contrastingly, in the industrialization phase-finance perspective, Anders Regert's commitment was only in the form of soft money and not time, energy or advice.

Despite this different type of commitment, Anders's way of committing also contributed positively to the finance objective of obtaining soft money.

The overall pattern we can see is that if there has been increased commitment it has affected market, product and finance perspectives positively and if there has been decreased commitment this has affected the perspectives negatively. This is evident in all of the cases.

Another thing that we found, which may be outside the scope of the analysis, is that many times it is not *only* the match of communication and role to individual that leads to a positive effect on perspective. Sometimes, the individual's match to the goal (the advisor being early adopter, network and the advice) is equally important in order to reach the objective of the perspective. For example, in ideation phase-market perspective, the fact that Sara Korinski, Nora Wand and Russel Stubbe were early adopters themselves and had a network of early adopters made their advice crucial in reaching the objective of the market perspective (e.g. innovators and early adopters).

In addition, the actual advice is often equally or more important than the type of communication (informal or formal). As seen in industrialization phase-market perspective with Michael Sider and Chris Söderlind; both these advisors' actual advice was more important for reaching out to innovators and early adopters than the mismatch of informal communication to formal individual.

Lastly, we can see that the ambassadorship that Nora Wand, Sara Korinski and Lisa Lark had was positive for the different objectives of the ideation phase-market perspective and industrialization phase-finance perspective.

Team Level

In this section, we examine the startup on a team basis. Each team was divided into the advisors who performed certain tasks in order to reach a specific goal in a particular phase. The two phases were defined as ideation phase and industrialization phase. We distinguished that is a positive correlation between the degree of successful relationships within a team. If there was a tendency that other relationships worked well an inefficient relationship didn't impact that result as much as if there were several suboptimal relationships.

We distinguish that when effectual logic was applied on a team level the team was more

likely to have a successful outcome as well as when the team that performed the best had complementary Team Roles, according to Belbin's definition. If the teams were biased towards a more homogeneous group of individuals this could be compensated by having key individuals who could empower the entrepreneur with experience within communication. With the effectual logic, we could see that the bird-in-hand principle was the most dominant principle on a team level. Many advisors acted on a more independent level with Mai-Li, who served as the main contact in the organization. Even if there were oftentimes commitment on an individual basis, the lack of contact with the remaining group resulted in a smaller sense of commitment on a team level. The crazy-quilt principle within the effectual logic was not always obvious as the bird-in-hand principle. Regarding the risk aspect, if we would have elaborated on the risk of the entrepreneurial process we have studied and not delimited it, then in what way would it impact the conclusions we have drawn? Firstly, when adjusting the communication and role to the individual, we see the reduction of risk. Secondly, on a team level, building complementary teams with different skill-sets and behaviors will result in the team having a greater ability to guide the entrepreneurs through a variety of decisions, which in turn lowers the level of uncertainty. We have analyzed the team's functionality in terms of the market, product and finance goals. This can lead us to propose certain actions that will lower the market, product and financial risks. We believe that our conclusions most likely would not have been significantly different if had we chosen to treat risk more explicitly.

We believe that the results reveal that we discovered some patterns that help us in answering our research question. We also hope that the above findings can fulfill our purpose of enabling decision-making for entrepreneurs in high-risk environments and act as a platform for future research to elaborate on.

6 Managerial Implications and Future Research

From the results in this study, we conclude that handling startup advisors is a complex process with that can be potentially very valuable to the team. There are many aspects that affect the relationship, which the entrepreneur must deal with. As we can see, relationships affect other relationships and advisors can help a company succeed. However, if the relationships are handled in a suboptimal way then they have the opposite effect. It's important for the entrepreneur to keep in mind that relationships are, to a certain degree, interconnected; by being aware of this the entrepreneur can act proactively to a larger extent. Even though there are many ways that entrepreneurs can handle advisors, there are three aspects of the handling process that we'd like to highlight. In the study, we could see a positive correlation between the success of the relationship (in terms of value creation) and how well the role and communication of the advisor suited his/her personality type. We therefore suggest that entrepreneurs take this advice into consideration and either adapt the roles and communication to the individuals and/or try to recruit the advisors that will easily fit into a suitable role and communication style. Furthermore, since the relationships seem to be interconnected and show correlation, we recommend entrepreneurs to take care of dysfunctional, advisor relationships as fast as possible and either make them efficient or end them. The results in this study indicate that if the entrepreneur fails to find a fit for the advisor the relationship could possibly have a negative effect on the success of the company, especially considering the alternative costs of the entrepreneur. This means that the entrepreneur potentially would be better off without these relationships if they are not benefitting him/her.

We see success in the relationship increase when the entrepreneur handles the role-setting and communication-classification in a skillful way. We do not know why this is the case and we therefore suggest the following topics for future research:

Is commitment a key, value driver?

We could see a positive correlation between successful and value-creating relationships with the advisors and the fit between the communication and role that was offered to the advisor and him/her as an individual. We do not know what might be the reason for this correlation. Some of the results indicate that if the communication and role fit with the advisor then there was a larger degree of commitment. One assumption is that commitment is created by clarity. For future research, we would recommend to examine the different factors influencing success in a relationship.

Does effectual logic increase the chances for a better individual match regarding communication and role?

According to the thesis, there is an increased chance of a positive impact if effectual logic is applied, for example if the advisor and the entrepreneur already know each other, as well as if the advisor self-selects him/herself into the process. We do not know if this applies to this study, or if it's easier for the entrepreneur to adapt the role and communication when they already know each other; it's could be easier to find a fit when the relationship is mutual form the start because the entrepreneur already cares about the advisor, and vice versa. This pre-relationship could increase engagement and help in finding a communication and role that fits.

Final words

The process of handling startup advisors is one detail within entrepreneurial management. We hope that, by shedding light upon this topic, we will increase the visibility around startups advisors as a valid complement to the team. This is done in the hopes of increasing the likelihood that entrepreneurs will create successful teams, prospering businesses and add speed to innovation.

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8 Appendix

Below is the set of questions we used to when Stella interviewed Mai-Li. The interview questions were edited and iterated several times and the set of questions below is the final set of questions used.

Interview questions:

1. Goals

What were the market, product and finance goals of this phase?

Questions regarding the advisor as an individual;

Was this the right or wrong individual for the goal?

What kind of person were they?

Informal or formal?

Personality, background and skills?

2. Communication

Does the individual have access to the right information from the entrepreneur? (Education)

Is communication adjusted to the individual?

How is communication adjusted to the individual?

Information flow to advisor? Meetings, reports and informal information (emails, phone calls and text messages)

Information flow from advisor? Meetings, reports and informal information (emails, phone calls and text messages)

3. Role

Does person have a formal or informal advisor's role?

Is the role adjusted to the individual?

How is role adjusted to the individual?

4. Match

Is the communication and role adjusted to the individual?

Is there a match between the individual and the communication and role?

Does this match or mismatch of individual and communication affect the market, product and finance goals in a negative or positive way? How?

Does this match or mismatch of individual and role affect the market, product and finance goals in a negative or positive way? How?