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# An action and interaction perspective to portfolio entrepreneurship

**Marius Våge**

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Supervisor: Roger Sørheim, IØT

Norwegian University of Science and Technology

Department of Industrial Economics and Technology Management



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Written by Marius Våge

Supervised by Roger Sørheim

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Department of Industrial Economics and Technology Management  
NTNU

## Problem description

Entrepreneurs who undertake simultaneous ventures are referred to as one example of many: portfolio entrepreneurs and are alongside serial entrepreneurs a sub type entrepreneur under the term: experienced, habitual entrepreneurs (Westhead & Wright, 2015). The general research call for a greater understanding of portfolio entrepreneur's vs serial entrepreneurs stems from their unique experience with engaging in simultaneous ventures. Further they have been found to have more developed cognitive abilities and access to a broader network which is linked to enhanced opportunity identification and evaluation. The field of portfolio entrepreneurship can be characterized as being well researched regarding benefits associated with engaging in the phenomenon, but much is still unknown, in regards of their unique approaches for developing opportunities. Where it is in general called for more accumulating research that takes a multiple individual and opportunity perspectives, and researches how opportunity process unfolds as a series of actions and interactions. Shedding light on these approaches is likely to bring new insights that could e.g. be used to increase the collective quality of new business start-ups and maximize investment returns, as well as shed light on the general wealth creation process (Drucker, 2014; Morrish, 2009; Robson et al., (2012a); Rosa; 1998; Shepherd and DeTienne, 2005; Westhead & Wright, 2015; Zahra and Wright, 2011).



## Preface

I would especially like to thank Roger Sørheim, Øystein Widding and the rest of the faculty at NTNU's School of Entrepreneurship, with the design and methodology of the two intense years. It has both tested and substantially challenged my abilities and knowledge of entrepreneurship. Throughout this process my entrepreneurial perspective has been expanded, towards the innovation-based and opportunity-based views of entrepreneurship which we have tested out in praxis in an ongoing manner. This has undoubtedly affected and will keep on affecting my entrepreneurial decisions, development and life.



## Abstract

A significant number of entrepreneurs engage in two or more simultaneous business opportunities and these individuals are responsible for a significant contribution to the world's wealth processes and economy in general (Morrish, 2009). From the opportunity-based view, portfolio entrepreneurship is regarded as having e.g., a broader experience, more developed cognitive abilities and access to a broader network which is linked to enhanced opportunity identification and evaluation. The field of portfolio entrepreneurship can be characterized at one level, as being well researched regarding benefits associated with engaging in the phenomenon. However, several topics is still unknown, especially in regards of their unique approaches for developing opportunities. Especially, research that takes the multiple individual - opportunity nexus as a perspective. This regarding how opportunities are developed as a series of actions and interactions. Thus, the purpose of this master thesis becomes to research how a portfolio of business opportunities is developed as a series of actions and interactions, and in a network perspective.

To fulfil the thesis purpose, the author has chosen an embedded and qualitative research design, with three selected out of a portfolios five ventures, as sub unit of analysis. These three were selected, through a preliminary interview, where the author were able to check selection criteria's that were defined to strengthen the data acquisition regarding research questions.

This study found that two of the portfolios entrepreneurs identified their initial business idea of their current ventures, in actions and interactions, that had no entrepreneurial intent. What followingly were found is that all the inherent ventures opportunity development processes, did not reach explorative market related activities of acquiring customer information, before the three business ideas (or customers problems), had socially been exchanged to third parties. Secondly, this study found that there were differences between actions and interactions, that 1) were concerned with initial business idea identification, and the actions and interactions, that 2) were concerned with identify a new portfolio venture. The main differences are regards to scenario 1), open-endedness and homophily and scenario 2) intelligent altruism and causational networking.

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## 1 Introduction

A significant number of entrepreneurs engage in two or more simultaneous business opportunities and these individuals are responsible for a significant contribution to the world's wealth processes and economy in general (Morrish, 2009). Research concerned about individuals engaging in simultaneous ventures have become widely acknowledged among researchers as an important topic for research, to supplement our collective understanding of how entrepreneurs develop business opportunities for creating economic and social changes (Carter & Ram, 2003). The phenomenon is described as an "ubiquitous feature in the economic landscape" (Carter & Ram, 2003), and is found in highly technological ventures as well as in commerce service ventures and farming industries. This broad field of interlinked simultaneous businesses are not new to academia. Behind it are decades of research elaborating on different levels and perspectives on the phenomenon, using the single firm as a unit of analysis, concerning both entrepreneurial and business- management, organization, and strategy scholars, which can be categorized as having reached its limits (Carter & Ram, 2003).

Entrepreneurs who undertake simultaneous ventures are referred to as one example of many: portfolio entrepreneurs and are alongside serial entrepreneurs a sub type entrepreneur under the term: experienced, habitual entrepreneurs (Westhead & Wright, 2015). The general research call for a greater understanding of portfolio entrepreneur's vs serial entrepreneurs stems from their unique experience with engaging in simultaneous ventures, which are one of the determinants that affect how they engage in the entrepreneurial process and its inherent key eventualities (opportunities, resources and individuals), with its subprocesses. Shedding light on the portfolio process is likely to bring new insights that could e.g. be used to increase the collective quality of new business start-ups and maximize investment returns, as well as shed light on the general wealth creation process (Drucker, 2014; Morrish, 2009; Robson et al., (2012a); Rosa; 1998; Shepherd and DeTienne, 2005; Westhead & Wright, 2015; Zahra and Wright, 2011).

In the opportunity-based view, portfolio entrepreneurship is regarded as having a broader experience and access to a broader network which enhances the ability of opportunity recognition and evaluation. To identify entrepreneurial opportunities, the enterprising individual must have an ability to discover new means-end relations, which arise from a given change in the environment. Even if the individual can discover new opportunities but fails to see new means-ends relationships

because visualizing these relationships is difficult, one will not connect the necessary links (Shane & Venkataraman, 2000). Portfolio entrepreneurs have been associated with better developed cognitive abilities which enhances their ability for opportunity recognition and evaluation. Better cognitive abilities are on the other hand related to the context of an opportunity. (Companys & McMullen 2007) distinguish opportunities into three categories depending on the environment origin. First, economic opportunities, which are situations that entail material resources and information in the discovery of new value-creating, means-ends relationships. Second, cultural cognitive opportunities are subjective situations that require interpretive processes for the enactment of valuable, new means-ends relationships. Third, socio-political opportunities are objective situations embedded in existing social structures that actors exploit to create new means-ends relationships. These different opportunities define the opportunity structure and therefore needs a corresponding cognitive ability to be identified. Portfolio entrepreneurs should be able to show more innovativeness, and higher exploiting activity (Robson et al. 2012) as this reduces the complexity of the portfolio process in various ways. For example, opportunity exploitation will be more difficult and costly for those individuals with less resource endowments who need to acquire the resources necessary for exploitation than for those who already possess such resources (Alvarez & Barney, 2004), which can explain why some people but not others exploit opportunities. Central in the opportunity-based view lies the relationship between means and ends, between the individual - opportunity nexus. This is key to understand but is yet to be fully understood. To better understand this area, Venkataraman (2012), calls for a nexus of actions and interactions. Seeing this in the light of portfolio entrepreneurship, this thesis draws a purpose to research actions and interactions that have led to forming a portfolio. Lifting beyond the single insight, has been argued bought in the general and portfolio field, to hold potential hidden insights to portfolio entrepreneurship.

## 1.1 Literature gap

There is a general call for further insight from research that takes a processual approach in elaborating on processes of interplay between factors during venture development, in a nexus of multiple individuals and opportunities (Alsos, 2016). (Muñoz and Dimov 2015) highlights: “venture development is a result of an interrelationship of different factors and never the result of one factor”. These sustainable development paths as he refers to should be highlighted by a

multiple of factors at play, where the complexity of these paths is related to how the factors enmesh together and not the numbers of factors of play. This is seen in a perspective of a portfolio of ventures and how these ventures are developed through a series of actions and interactions, and their inherent networking approaches in these entrepreneurial actions, (Dimo, 2010; Engel et al, 2017), which is in line with Venkataraman's plea for a nexus around entrepreneurial actions and interactions (2012).

## 1.2 Choice of portfolio

The portfolio case has been chosen, through a preliminary interview and the authors network. The portfolio is of Norwegian origin, and the main ventures of the portfolio is in the north-west coast of Norway and consists of five ventures. These ventures operate in different industries and are at different life stage of a business development. The oldest company in the portfolio has established a strong foundation through several decades in its industry and are itself a result of a joint venture from two other companies. All the different business is owned by several and different persons. The portfolio is regarded as having high technological competence and has been authorized different quality ISO certificates.

## 1.3 Research questions

This theoretical literature gap forms the background for choice of thesis and entrepreneurial portfolio, which have led to the following research questions:

1. How do portfolio entrepreneurs acquire new business opportunities in a perspective of actions and interactions?
2. How do portfolio entrepreneurs approach these actions and interactions in a networking perspective?

## 1.4 Content and structure of the thesis

The thesis consists of six main chapters. In chapter two the method for data acquisition is presented, where the data is acquired through an embedded case design, where three of the portfolios ventures, serves as sub units of analysis. The theory behind the thesis that are used to analyse acquired portfolio data, is presented in chapter three. Followingly are chapter four which

presents the acquired portfolio data. This data is analysed and reflected in the thesis theory, and elaborated in regards of the thesis research questions, in chapter five. Chapter six, holds the conclusion to research questions, which are followed references in chapter seven.

## 2.Method

To obtain data coherent with the research questions, the data is obtained by an embedded case and qualitative research approach to a single portfolio case in the initial phases of opportunity identification, and the contextual situations where this happens, with emphasis on how these situations gives rise to further actions. First, this chapter will elaborate on the research design and the logic behind the case study. Second, the means of data acquisition and selection criteria. Third, reflections of strengths and limitations of the method will be presented.

### 2.1 Research design

This section elaborates on the chosen research design. The design will be used as a framework for data collection and analysis, with the goal of answering the research questions (Bryman, 2008; Philiber, Schwab & Samsloss, 1980, Flick, 2015).

#### 2.1.1 Embedded single case study

An embedded approach is appropriate when studying entrepreneurial opportunity processes, which sees these opportunities as strongly influenced by its inherent social setting where they are effectuated (e.g. Dana 1995; Davidsson et al. 2006). This approach is used when a case study contains several sub-units of analysis (Yin, 2003). This is reflecting upon an entrepreneurial portfolio as the case and their inherent venture opportunity settings as sub-unit of analysis. This sub-unit categorization provides a structured option for a detailed inquiry in empirical form for descriptive studies, adopting a goal of describing features, contexts and processes of phenomena. This methodology is contingent with multiple sources of information, increasing breadth and depth in its data acquisition. To contribute to its validity, it is suggested to understand information through triangulation and the use of different information sources (Yin, 2003).

#### **Single case**

Consistent with Eisenhardt & Graebner (2007) and Suddaby (2006), a single case study is valuable

when one is trying to understand “how and why questions”. Therefore, this thesis adopts a single case study, due the context dependent situations where little is known. In addition, this will strengthen the thesis’ ability to identify case specific dynamics and processes (Westhead & Wright, 2015). This approach is a valid method for interpretive studies, which is used to develop and understand how the building blocks come together as the processes and dynamics unfolds and develop (Cope, 2011; Hjorth and Stevaert, 2004).

### 2.1.2 Qualitative research design

Consistent with Yin (2014) and Yin & Davis (2007), a qualitative case study is also appropriate when trying to understand “how and why questions”. This due to the need for in-depth understanding of this multi-sided contemporary process and its building blocks. This will strengthen the search for variables and building blocks that have affected the process creation, and the elaboration of its diversity and nuances (Eisenhardt, 1989; Flick, 2015).

### 2.1.3 Selection of case firm

When selecting a case firm for research, it is helpful to set up a criteria list that the selected case needs to fulfil (Bryman, 2008). The following criteria list was used to cross check and strengthen the validity of the acquired data and the analytical degree of being generalisable:

- The portfolio consists of 5 ventures that are or are developing towards market exploitation of the opportunity,
- One is a mature venture, one is in high growth and multinational, one is undergoing commercializing, two is under development of a market – product fit,
- The author had previously established a strong and trustful tie to the interview subjects,
- The lead entrepreneurs hold significantly different prior experiences.

### 2.1.4 Selection strategy

Coherent with the selection criteria, portfolio cases where evaluated towards a final choice on a portfolio of ventures in Norway, constituting five ventures at different life stages, in different markets and different industries.

	<u>Venture 0</u> (Lead player in metal processing & mechanical engineering)	<u>Venture 1</u> Growing player in automated gas tank product/service	<u>Venture 2</u> Smart solutions for high end leisure activities	<u>Venture 3</u> Smart solutions for urban homes and offices	<u>Venture 4</u> Technical facilities surveillance, regulation and control software
Life stage	Maturity	Early growth	Commercialization	Under development	Technical facilities surveillance, regulation and control software
Economics	Healthy	Healthy	In-need of production capital	In-need of development capital	In-need of development capital
Market	Norway	International	International	International	International
Employees	67	17	5	4	1

## 2.2 Data acquisition

After concluding with a portfolio case, a mental mapping of the portfolio was done through a preliminary questionnaire answered by phone. Based on the answers, follow-up questions were defined and executed through skype-meetings, all in the purpose of strengthening the author's insights and mental schemas over the thesis case opportunity (Shane & Venkataraman, 2000).

### 2.2.1 Theoretical framework

Before conducting the main interviews, there was established a framework of theories. This further strengthens the authors insight and ability to ask sharp questions, supporting the exploration of the portfolio and creation of necessary information (Yin, 2014).

### 2.2.2 Portfolio information gathering

Before the interviews, there was established a data collection protocol in line with Yin (2014). Ranging from resources needed for the interviews, schedule for collection of data to a backup plan if the interviews was intertwined by obstacles. The acquired data was sorted in the case study database, using Microsoft Word and Excel.

## Public information

Public information was gathered on the ventures constituting the portfolio, read and organized in the case study database. These sources consisted of websites, newspaper articles about the companies and their organizational environment, and financial records.

### 2.2.3 Interviews

Lead entrepreneurs in the portfolio, consisting of five ventures, were asked if they wanted to participate in the interviews, and a preliminary interview was scheduled to mental map the portfolio and to evaluate the likelihood of discovering critical social networking events that had affected the opportunity development. Main interviews were scheduled within a reasonable timeframe and conducted within two weeks. To ensure the quality of the data acquisition, the interview targets were set mainly to the lead entrepreneurs of the three of portfolio ventures, and additional interviews with two of the ventures lead entrepreneur's co-founders. This is due to the lead entrepreneur in venture zero, was unable to participate during the timeframe for the interviews, and the lead entrepreneur in venture five, excluded, due to limitations of the thesis' time frame. The lead entrepreneurs in the three other ventures were very co-operative and provided information beyond what was asked for.

	<b>Lead entrepreneur Venture two</b>	<b>Lead entrepreneur Venture three</b>	<b>Lead entrepreneur Venture four</b>
<b>Educational level</b>	Master's Degree	Master's Degree	Master's Degree
<b>Educational background</b>	Business and Administration	Business Strategy	Mechanical Engineering
<b>Prior Business Experience</b>	7 years	5 years	0 years, 20 years mechanical experience, 5 years freelancer.
<b>Prior Entrepreneurial experience</b>	0 years	2 years	0 years
<b>Geographical residence</b>	Rural area – Norway	Urban area - Norway	Urban area – Norway
<b>Current work relation</b>	Co-founder and CEO of entrepreneurial venture	Co – founder and CEO of entrepreneurial venture	Co – founder and working paid job.

#### 2.2.4 Preliminary interviews

Due to be a single author, there was conducted a preliminary interview, allowing the author to get insights to the portfolio before the main interview. This opened for a more detailed and customized interview, strengthening the quality of the thesis.

The author got insight to the product's hardware functionalities, its supportive software, ecosystem/IOT, opportunity and resource processes through the preliminary interview. This enabled questions with regards to hidden knowledge through the main interviews, which supported the degree of insights into the gathered data. The total perspective was a stronger overview of the case dependent processes, which allowed for a more unique data acquisition.

#### 2.2.5 In-depth interviews

The interviews were semi-structured, with a duration of approximately one hour and one hour and 30 minutes. With a prepared questionnaire the author conducted the interviews to access portfolio information regarding how the portfolio had approached main events leading to portfolio creation, and these events pre and post actions and interactions, and which factors had been present and affected these processes.

Keeping the interview semi structured allowed the author to obtain reflections, activities, factors and behaviours that was not covered by the theoretical based interview guide. This allows for a stronger flexibility and an opportunity to capture more personal answers (Bryman, 2008).

Between the answers from the interview guide/questionnaire, there were asked several follow up questions. After the interviews there were approximately 15 minutes of free dynamical talk, which was used as a technique to open the subjects, for providing additional information, the author nor the questioner had thought of.

### 2.3 Limitations

Sine this thesis is conducted by one author several limitations comes in to play, that in a case of multiple authors would have been avoided. This is in regard to several authors conducting interviews, are likely to enhance the acquisition and analysis since, multiple authors would allow for multiple perspectives and is known to increase the creative potential of the study (Eisenhardt, 1989). Having multiple perspectives provides different insights, due to experiences and knowledge

that constitutes the authors mental schemas (Shane & Venkataraman, 2000). Which would allow for different follow questions during the interviews. This would also allow a more dedicated focus on the tasks in regards of interviewing, e.g., one author could focus upon observing body language and taking notes, and another could focus upon the interview questions (Eisenhardt & Bourgeois, 1988).

As the method draws on historical timeline of data, they interviewed suffer from operating from a selective recall memory, just as in the case of serial entrepreneur's vs portfolio entrepreneurs. This implies that the trustworthiness and accuracy of the gathered data are strengthen in the newest actions and interactions of the entrepreneurs. As this series of data gathered are from situations that are under a month old, on date of data acquisition.

## 2.4 Trustworthiness

Lincoln and Guba (1994) describes four criteria to evaluate the trustworthiness of a qualitative study; credibility, transferability, dependability and confirmability. These criteria and methods taken to strengthen the quality of thesis are showed in the table below:

Trustworthiness		
Credibility	Description	Means that results are perceived believable by participants
	Actions	Triangulation: was used to research and understand several data sources: Including websites, financial records, news articles of all the ventures, preliminary interviews, in-depth interviews, business documents and other internal case information accessed through the entrepreneurs.
Transferability	Description	Reflects if these results can be generalized or transferred across contexts.
	Actions	The thesis cases and their actions and interactions has been described in detail. This increases transferability of the study
Dependability	Description	Means if the research can be reproduced or not
	Actions	The process of information acquisition consists of an iterative process, to some degree, cross checking acquired data with the lead entrepreneurs.
Confirmability	Description	Reflects a degree of neutrality, if the results can be confirmed by others and the authors bias
	Actions	Triangulation with credibility increases the confirmability. In addition, actions and interaction which involved lead entrepreneurs from different ventures, have researched from both entrepreneur's perspective.

## 3 Theory

Various explanations have been offered in the opportunity-based literature, trying to fill the multitude of gaps in the quests for understanding processes of opportunity development when dealing with how creations of new means-ends relations are constructed in an environment of uncertainty and lack of information. To strengthen the contribution of this thesis in regards of constructive empirical data and analysis, two different influential frameworks are used as the main structure of this work, which involves processes and interplay of determinants with the emergence and development of opportunities, as good research should scrutinize phenomena through different theoretical lenses (Weber, 2003). This is because a single theory will provide a limited view, and value is found in shedding light through various phenomena through different perspectives and theories (Davidsson *et al.*, 2001).

Firstly, an overview of portfolio entrepreneurship will be given, which is followed up by the conceptual framework of Shane & Venkataraman (2000), that will be used as a background to reflect data analysis upon. Following the theories of Dimov (2007, 2010), will be presented and will be used to shed light on the social and creative processes that are involved in development processes actions and interactions with stakeholders. Lastly, strategic networking strategies from Engel et al (2017), extensive literature review will be presented and used in the analysis to shed light on the literature gap of how portfolio entrepreneurs approach their actions and interactions, that constitute significant events in their portfolio processes (e.g. Opportunity identification, interactions leading to portfolio formation).

### 3.1 Portfolio entrepreneurship

*Ever since the study of entrepreneurship evolved from looking at groups and firms to focusing on the individual, the field of portfolio entrepreneurship has accumulated attention* (e.g., Carter, 1998; Ucbasaran et al., 2003a; Westhead & Wright, 1998).

Benefits and limitations of engaging in simultaneous business opportunities can be defined as well researched, which have further stimulated interest in the field. To recent date, cases of portfolio entrepreneurship are often seen in the light of a contextual dependent situations. Which seemingly have evolved the portfolio area to be constituted of a series of context dependent strings of research that can be categorized in different sections, with an overall broad definition of portfolio

entrepreneurship as “ownership of multiple businesses” (Carter & Ram, 2003). The first of these sections is concerned with additional business activities, in both rural and urban areas, where entrepreneurs engage in multiple business activities to increase additional sources of income, where especially researched is the determinant of resource transferability, family and their household and how these relational ties affect their business activities (e.g. Alsos & Carter, 2006; Carter, 2001). The second section is concerned with the perspective of the firms under the term business groups and their characterizations because of the portfolio entrepreneurs experience lays grounds for variances and unique approaches via e.g., teams to develop business groups (Carter & Ram, 2003).: (Iacobucci & Rosa, 2010). The third section is in general concerned with exploring differences between novice and habitual entrepreneurs and to some extent differences between male and female entrepreneurs. This is mainly done by differentiating between e.g., their individual characteristics, their gestation process and venture features (Alsos & Kolvereid, 1998; Alsos & Isaksen, 2006; Westhead & Wright, 1998; Ucbasaran et al., 2003; Iacobucci & Rosa, 2010). Section four covers portfolio entrepreneurs in an international context, where concepts of opportunity processing (Dimo, 2010) have been further developed and found to withhold new processes for opportunity portfolio development (Chandra et al., 2014). These newly found processes are a result of moving beyond the single – individual opportunity nexus, and elaborate on portfolio opportunity development, and how these opportunities unfold over time as the entrepreneurs interact with stakeholders.

### 3.1.1 Definitions of portfolio entrepreneurship

Portfolio entrepreneurship can be described as the ownership of several businesses (Carter & Ram, 2003), and is a term used to describe a variety of multiple-business dynamics, ranging from business groups (Iacobucci & Rosa, 2010) to entrepreneurs involved in additional business activities outside their core foundation (e.g. Alsos, 2007; Alsos & Carter, 2006). Portfolio entrepreneurs are defined as multiple venture entrepreneurs, parallel business owners, multiple business founders, parallel business founders, habitual founders, or expert entrepreneurs (Alsos & Kolvereid, 1998; Morrish, 2009; Rosa & Scott, 1999; Westhead & Wright, 1998). What they all have in common is that they are entrepreneurs engaged in simultaneous business activities and/or relations at the same time (Carter and Ram, 2003), by exploitation of several business opportunities

(Wiklund and Shepherd 2008), or through diversification of the entrepreneurial process (Rosa,1998).

There has been emphasised that ongoing experience and venture creation in business start-up is a key determinant (Florin et al., 2003; Ucbasaran et al., 2009). Having access to established assets and liabilities, but also to ongoing experiences of trial and error will help with the process of developing the portfolio and single business opportunities. Prior experience may also aid in the exploitation of new opportunities and to run the businesses with more care and efficiency (Rerup, 2005). Prior failure is pointed out as an entrepreneurial asset (Rosa & Scott, 1999) due to the consequential ability to recognise pitfalls, and thereby not only increase the chance of survival (McGrath, 1999), but increase the chance of healthy growth (Alsos et al., 2006; Ucbasaran et al., 2003a; Westhead, Ucbasaran, & Wright, 2003). In summary, engaging in portfolio entrepreneurship promises increased likelihood of growth and the benefit of an iterative trial and error process between the businesses in the portfolio. (Carter & Ram, 2003).

### 3.1.2 Perspectives of portfolio entrepreneurs

Earlier researched established that both serial and portfolio entrepreneurs also can be divided in a subcategory dependent on the determinants of their primary motives. Serial entrepreneurship can be differentiated by the desire to increase the profits or to exploit the accumulated human capital, knowledge, experience, and skills. Where the latter can be a mode of action where serial entrepreneurs attempt expanding their business opportunity in an optimal perspective and does an exit strategy at an optimized beneficial point of the development process. Sequentially the serial entrepreneur repeats the process in a new business opportunity. Where the primary motive is to accumulate wealth.

The latter of portfolio entrepreneurs are concerned about exploiting accumulated human capital (knowledge, skills, and experience) in any given time and in any given environment, during the development process. In some communities these entrepreneurs are deemed as less educated craftsmen than serial entrepreneurs, but among these are also highly educated academic entrepreneurs who make a wide range of unique careers in varying ways of self-employment and salaried employment. This can reflect a person's attempt to find an entrepreneurial way through different trial and errors and /or success.

Portfolio entrepreneurship is known as both a lateral growth strategy and survival strategy of a venture. Innovative and growth-oriented entrepreneurs may take proactive actions when approaching and exploiting business opportunities. A common characteristic is with a status aspiration (Huovinen 2007). When they engage in simultaneous ventures, they are often known to prefer to work in teams, with the purpose to share responsibilities and increase growth. Commonly they are also differentiated from other entrepreneurs on the notion that failure is only one situation in their entrepreneurial process, and not its end.

### 3.1.3 Opportunity based view of portfolio entrepreneurship

*Opportunity based view* in a perspective of portfolio entrepreneurship can be said at one level to be concerned with how portfolio entrepreneurs identify and exploit a seemingly higher number and more complex opportunities and explaining why portfolio entrepreneurship is a potentially more fertile ground for opportunities.

Following the arguments from Schumpeter one sees that different conjectures of resources are dependent on experience and access to information. Where portfolio entrepreneurship is regarded as having a broader experience and access to a broader network which enhances the ability of opportunity recognition and evaluation. To identify entrepreneurial opportunities, the enterprising individual must have an ability to discover new means-end relations, which arise from a given change in the environment. Even if the individual can discover new opportunities but fails to see new means-ends relationships because visualizing these relationships is difficult, one will not connect the necessary links (Shane & Venkataraman, 2000). Portfolio entrepreneurs have been associated with better developed cognitive abilities which enhances their ability for opportunity recognition and evaluation. Better cognitive abilities are on the other hand related to the context of an opportunity. (Companys & McMullen 2007) distinguish opportunities into three categories depending on the environment origin. First, economic opportunities, which are situations that entail material resources and information in the discovery of new value-creating, means-ends relationships. Second, cultural cognitive opportunities are subjective situations that require interpretive processes for the enactment of valuable, new means-ends relationships. Third, socio-political opportunities are objective situations embedded in existing social structures that actors exploit to create new means-ends relationships. These different opportunities define the

opportunity structure and therefore needs a corresponding cognitive ability to be identified. Portfolio entrepreneurs should be able to show more innovativeness, and higher exploiting activity (Robson et al. 2012) as this reduces the complexity of the portfolio process in various ways. For example, opportunity exploitation will be more difficult and costly for those individuals with less resource endowments who need to acquire the resources necessary for exploitation than for those who already possess such resources (Alvarez & Barney, 2004), which can explain why some people but not others exploit opportunities. Central in the opportunity-based view lies the relationship between means and ends. This is key to understand but is yet to be fully understood.

### 3.2 Entrepreneurial opportunities

From the origin of the single opportunity nexus (Shane & Venkataraman, 2000), and up to current date, the opportunity-based view of entrepreneurship has evolved toward the multiple individual opportunity nexus, constituting a series of different theories and perspectives. Where some see opportunities as recognized through a process of information search (Caplan, 1999; Ucbasaran et al., 2009), some see opportunities as discovered in the market, based on alert individuals (Kirzner, 1985), some see them as created through an abductive process (Sarasvathy, 2011), and some see them created through a creative and social process (Dimo, 2007, 2010). The commonalities among these are the cross section and close link between individuals and their inherent business opportunity, which formed the individual opportunity nexus (Shane & Venkataraman, 2000) and coherently how the opportunities are developed through processes and subprocesses, to ultimately constitute a fit to their industry and market.

#### 3.2.1 Existence of Entrepreneurial Opportunities

One of the key building blocks when engaging in entrepreneurship is entrepreneurial opportunities. Entrepreneurial opportunities are viewed as objective phenomena that occur in different situations, whether someone has identified the opportunity or not (Shane & Venkataraman, 2000). This requires a fit between two or more entities. E.g., Entity (1): “a new technology”, that can have the potential to solve problems for entity (2): “customers”, whether individuals have the knowledge of the technology's existence or the potential of it in market situations. So, for entrepreneurship to take place, one must have individuals with access to information. Information changes the

entrepreneurial situation and is an essential part of the opportunity identification- and its relative evaluation process. In this view;

- Opportunities are viewed as objective phenomena (Shane & Venkataraman, 2000).
- Entrepreneurs recognitions of opportunities are subjective (Shane & Venkataraman, 2000).
- Realization of opportunities involves at least two entities or phenomena: (1) opportunities and (2) enterprising individuals with access to information (Venkataraman, 1997).

As with other opportunities, entrepreneurial opportunities come in a variety of forms. Casson, (1982) defined entrepreneurial opportunities as situations where new goods, services, raw materials and organizing methods can be introduced and sold at a greater price than their cost of production, additionally they can be found in different markets, e.g., product markets and factor markets (Schumpeter, 1934; Drucker, 1985). Entrepreneurial opportunities differ from the general mix of opportunities and research on them have especially been done in products markets. Drucker (1985), describes three different entrepreneurial opportunities within product markets:

- (1) Creation of new information, e.g., invention of new technology;
- (2) Exploitation of market inefficiencies which are a result of information asymmetry;
- (3) Shifts in the relative cost and benefits of resources alternative uses.

What further distinguishes entrepreneurial opportunities are the uncertainty connected to the relative range of exploitation options and its inherent range of consequences that are unknown before exploitation take place. This leads to the notion that entrepreneurial opportunities cannot be exploited through an optimization process which is achieved by mechanical calculations drawn as a result from a fixed set of alternatives (Baumol, 1993). This is what distinguishes entrepreneurial opportunities from other opportunities for profit, especially opportunities to maximize efficiency of existing goods, services, raw materials and organizing methods, because this means optimization through a new means-end relationship within an existing means-end relationship (Kirzner, 1997). Thus, entrepreneurial opportunities

- Involves the creation of new means-end relations outside existing means-ends relations (Kirzner, 1997).

- Are identified in an environment of uncertainty, that collectively currently lack information.

If all individuals sat on the same information and thus had the same opinion of the opportunities and their value potential, individuals would all compete to capture the same entrepreneurial profit, to the point where the incentives to pursue the opportunities were removed (Schumpeter, 1934). When an individual makes the conjecture that an opportunity can be exploited through a resource that could be put to better use serving the new opportunity than its currently usage, an entrepreneurial discovery has been made (Shane & Venkataraman, 2000). When individuals hold different conjectures of the potential of the opportunity or resource valuation, they make different assessments which can affect which markets that are targeted, which markets should be created, how the resources are transformable to another state, or otherwise how the entrepreneurial discovery will be brought to realization (Kirzner, 1997; Shane & Venkataraman, 2000). Secondly, the subjective valuation of resources affects the entrepreneurial profit in the sense that individuals must have different valuations of resources. Otherwise the resource owners would price the resource at the same level as the entrepreneur, which would leave no entrepreneurial profit to be made (Shane & Venkataraman, 2000). Thus;

- An entrepreneurial discovery is made when individuals make the conjecture that a resource could be put to better use than its current state.
- Entrepreneurship depend on asymmetry on information.

To summarize, an abstract to more concrete shapes of situations and things can be perceived by individuals as entrepreneurial opportunities, that take place in the environment around us and its inherent nexus of phenomenon. These phenomena are discovered by individuals that hold a preconditioned belief, constituted by different sets of knowledge or insights, which is on a broad level a necessity for entrepreneurship to occur.

### 3.2.2 Discovery of entrepreneurial opportunities

As preconditions for the discovery of new opportunities has been described, the essential question to discovery of opportunities is why some individuals discover new opportunities, and what affects their ability to discover them.

Several explanations have been suggested which constitutes two broad categories of factors outside the null hypothesis of blind luck: “*the possession of prior information necessary to identify opportunities and the cognitive properties necessary to value them*” – Shane & Venkataraman, 2000.

### 3.2.2.1 Information corridors

Individuals possess and have access to different information, and these sets of information are referred to as mental schemas. The different mental schemas affect how individuals perceive different situations and opportunities. For an individual to recognize an opportunity, he or she must have prior relevant information in stock, which triggers an entrepreneurial conjecture (Kaish & Gilad, 1987). Since information is not equally distributed among individuals, but rather a random distribution after the unique life circumstances, no individual holds the same stock of information and mental schemas at the same time (Shane & Venkataraman, 2000).

### 3.2.2.2 Cognitive abilities

Possessing the relevant information to identify a new entrepreneurial opportunity is inadequate if the person cannot see the new means-ends relations to the opportunity. History is full of examples where inventors failed to see the commercial potential in their invention.

After the discovery an opportunity, further enactment on the opportunity can be described in what is referred to as opportunity processing, where the entrepreneurs engage in a series of actions and interactions as a creative social process of exchanging information, interpreting information etc. (Dimov, 2010).

## 3.3 Opportunity processing

Given opportunities as an objective phenomenon that requires a subjective process of opportunity recognition and an ability of constructing a new means-ends relationship, the following quest must be aimed to further understand how opportunities are moved beyond the initial state it withholds when being identified. Various explanations have been offered in the opportunity-based literature, trying to fill the multitude of gaps when dealing with how the creation of new means-ends relations are constructed in an environment of uncertainty and lack of information. One of the more influential works comes from Dimo Dimov (2007) who contributes to the conceptualizing of

opportunity development as a creative process. This process of opportunity development stresses that an entrepreneur is actively involved in information and value exchange with a surrounding environment or community that affect and gradually polish and develop what was initially an unpolished opportunity not configured to an exact fit for exploitation. To study and understand this process of how an opportunity is developed from its initial state, Dimov exert the need to:

- Capture its ephemeral beginning and sustenance to avoid survival bias,
- Reconcile the positivist and constructivist accounts of the nature of opportunities,
- Incorporate the involvement of stakeholders beyond the individual entrepreneur (Davidsson, 2003; Dutta & Crossan, 2005; Gartner, Carter, & Hills, 2003).

Opportunity development that takes place in the potent feature of entrepreneurship: the beginning and presence of uncertainty and the need to act towards it in a creative manner where a multitude of insights arise that reinforce, modify and/or contradict each other, as the entrepreneur tries to resolve and deal with the uncertainty. This act of resolving the uncertainty is emphasized around situational and social influences that continuously affect the opportunity development by:

- Redirecting attention,
- Providing new information and interpretations,
- Reinforcing or weakening beliefs,
- Etc.

Rather than being the act of a single enterprising individual, entrepreneurial opportunity development encompasses a social learning process where new information continuously emerges from interaction with the environment, trying to resolve the uncertainty inherent to different stages of opportunity development. Through this embedded process, opportunities are developed through different sub processes, discussing them and interpreting them, to the point where a business idea is elaborated, refined, changed or discarded (Dimo, 2007). This conceptualization of opportunities allows for a view of entrepreneurial opportunities as:

- A stream of continuously developed ideas, driven and shaped by social interaction, creative insights, and action at the inherent different stages.

This view of entrepreneurial opportunities opens for various new perspectives for elaboration and understanding how opportunities are developed beyond single-person, single-insight explanations. As this thesis is views the perspective of an entrepreneurial process for opportunity development as a series of sequential actions and interactions with share and stakeholders.

### 3.4 Opportunities in various perspectives

In 2010(Pub. 2017), Dimov laid out a suggestion for the structural framework on study of opportunity where three different definitions, or perspectives on opportunity as a phenomenon is presented. Without disparaging the value and importance of the other perspectives, emphasis has been put on “Opportunity as expressed in actions” in this work.

#### **Opportunity as Happening**

By modelling an opportunity as a living organism, one assigns to it an inherit drive to grow and develop. This is a well-known metaphor (Cardon, Zietsma, Saporito, Matherne, & Davis, 2005), and has several attributes that fits well with real scenarios. The birth of a venture idea, something new, fragile and full of potential, is depicted as an embryo: the beginning of all life, soon to develop into something vital and real. The distinction between the stages is the potential, the probability, the weight it delivers with regards to survival, the likelihood of it developing further (Dimov, 2010(2017)). With this perspective, the venture takes on the development in its own right, driven forward by the pre-set genetic code, and cares little of the external forces acting upon it, so long it does not kill it. This perspective can be projected upon ventures that develop out of older and established ventures, joining a portfolio of businesses as a new sibling, designed out of the structure of older generations.

As Dimov (2010) describes an opportunity as compared to an embryo lacks the explanation of how an idea develops into a venture. An embryo is “self-propelled by virtue of being alive”, whereas an opportunity is not. An idea, remaining in that state is suitable research material for those who study creativity i.e., “the production of novel and useful ideas” (Amabile, 1996). Entrepreneurship scholars are brought to the table when actions are introduced, driving the idea into a venture development through the movement towards those evaluated as beneficial and feasible (cf. McMullen & Shepherd, 2006). This leads to actions being defined as the “empirical footprints of opportunities”, a necessary precursor for the idea to be defined as an opportunity and focus on

what the action is rather than why it is executed is emphasised (Dimov, 2007b).

### **Opportunity as expressed in actions**

Defining an opportunity as the actions undertaken to develop an idea into something real and concrete, directly implies that an idea cannot be labelled “opportunity” unless acted upon (Dimov, 2007b). This perspective puts the differentiating factor onto the entrepreneur and its actions, limiting the definition of an opportunity to be introduced after some kind of action has been carried out, in contrast to the happening perspective, where the idea in and of itself is enough to define an opportunity.

### **Opportunity as Instituted in Market Structures**

Opportunities as future unoccupied spaces in the market are defined as neither real or guaranteed to be earmarked for the entrepreneur, but to be seen as available through actions, and “elbowing” gestures into the market space (Dimov, 2010 (2017)). The entrepreneur's initial interactions with the market and early relationships with other market actors slowly builds up to become a permanent part of the market through growing influence through exchange and business deals. In this perspective, the opportunity in and of itself is not the action undertaken by the entrepreneur, but rather the potential space it can occupy in the future market.

## **3.5 Entrepreneurial networking**

Entrepreneurial networking is defined as the act of producing ties, new or pre-existing, that may or may not contribute to the development of one’s own present or future ventures. There is value in distinguishing between the various approaches to networking as a strategy. *Causational networking* bases its approach to new and existing ties on a pre-set goal of the venture, relying on a clear division between valuable and invaluable ties (Hallen and Eisenhardt, 2012). *Effectual networking* uses its pre-existing ties as a starting point for the development of the venture and uses the assets available to form a more mouldable goal (Sarasvathy, 2001).

### **3.5.1 Networking with existing ties**

In the initial, uncertain stages of networking, the entrepreneur is faced with the question of who to approach first, and the simplest answer is those contacts where already existing ties are established, as Baker et al. described as an entrepreneur's network bricolage (Baker et al., 2003; Sarasvathy,

2001). The benefits of reaching out to already established relations are tied to the convenience of homophily and likeness, whether it be on geographical, cultural or informational terms (Hite, 2005; Hite and Hesterly, 2001; Rogan and Sorenson, 2014). In other words, the fact that an existing tie is indeed present and available is more important than what they can potentially contribute to the venture (Engel et al. 2017). An early aim of such a networking scheme might emerge from the question: “what we can do together” (Engel et al. 2017), and the process that follows ultimately shapes what kind of commitments, if any, that are established.

### 3.5.2 Forming new ties

In addition to reaching out to existing ties, there is almost a constant necessity for the creation of new ties (Wiltbank et al., 2006). Returning to the ever-present uncertainty surrounding the development of a venture, an entrepreneur never knows when a necessary resource appears, who offers it, or what it will be (Newbert et al., 2013: 284), and very rarely does it happen that a venture only relies on pre-existing ties throughout its lifespan (Hallen and Eisenhardt, 2012). Consequently, an opportunity arising from a network activity may not clearly announce its presence, and the entrepreneur might be oblivious to it until it already has been acted upon or in some cases, missed (Dimov, 2007b). Several studies have been conducted on the benefits of entrepreneurs roaming in new territories where no existing ties are present (Elfring and Hulsink, 2007; Vissa, 2012; Dyer et al. 2008). Dyer et al. even suggests that the differentiating factor of innovative entrepreneurs is the act of “idea networking”, i.e. the act of forming webs of ties spanning a large range of ideas and perspectives, setting the stage for a merge of radically different ideas and strategies. The reason for this can be found in human’s social behaviours and interactions, where especially behaving altruistically has proven to be beneficial.

### 3.5.3 Intelligent altruism

Part of the explanation for the altruistic behaviour exerted by entrepreneurs in networking processes is rooted in human evolution. It has been favourable for individuals in a group to act altruistically when collectively engaging in the battle of survival of the fittest (Simon, 1993). When helping others, the chances of receiving help, now or in the future, increases. These tendencies are observed in the networking strategies of entrepreneurs (van Gelderen, 2013): satisfying another individual's needs while opening for the possibility for them to help back is a commonly used

opening strategy (van Gelderen, 2013). It is described by Van de Ven et al. (2007: 359) as the “dual drive for self- and collective interests” and was documented empirically by Vissa in 2012 (Vissa, 2012). The fact that behaving altruistically influences others to reciprocate creates a space in which entrepreneur’s benefit, in the long run, from sacrificing something of their own to help others (Sarasvathy and Dew, 2008; Van de Ven et al., 2007; Porter and Woo, 2015). In addition, in first-time interactions, the uncertainty of whether it will be a single or repeated interaction forces the entrepreneur to choose how to invest in the situation, based on little to no information. It turns out that human beings in general prefer to treat these kinds of interactions as a potential repeated interaction, implying that investing time, attention and energy is more beneficial than choosing not to (Delton et al., 2011). In addition to small sacrifices in the name of networking and altruism, ensuing measures must be taken to potentially develop the tie into something even more useful.

#### 3.5.4 Pre-commitments

Entrepreneurs build their web of networks to develop their venture and looking at how a tie goes from being a mere relation to one where concrete favours and services, i.e. means, are being exchanged, creating the ventures first stepping stone towards business opportunities, is important. As Sarasvathy and Dew put it (2003), pre-commitments create self-imposed non-negotiable constraints on our future choices, and can be thought of as an informal deal that enriches the venture with the combined weight of what the two parties are willing to commit to the agreement, within the limits of affordable loss for both parties (Sarasvathy and Dew, 2003). This kind of relationship between entrepreneur and stakeholders opens up for a dynamical relationship, where the stakeholder may or may not have the influence to shape the development of the venture in exchange for advice, financial aid, new and influential connections and so on. It therefore becomes apparent that developing a tie into a pre-commitment is an inherent goal of networking, but not a necessary consequence of every interaction with every tie. There are several outcomes and approaches to forming a pre-commitment and hence a business opportunity, and focusing on the effectual approach to networking, serendipities are particularly interesting.

#### 3.5.5 Serendipity

Serendipity is a fortunate outcome from an unforeseen event. With regards to entrepreneurial networking, it is characterized by “a combination of search (directed effort), contingency

(favourable accidents) and prior knowledge” (Dew, 2009). It is by definition impossible to predict a serendipity, one can even draw comparison to the Heisenberg uncertainty principle from the field of physics, stating that there is no way of precisely knowing a particle's velocity if its location is known, and vice versa. The same can be said for a moment of serendipity: there is no way of knowing when a serendipity will occur without removing its inherent power of unexpectedness.

### 3.5.6 Contingency

A necessary precursor to serendipity is the formation of contingency: a future event relying on conditions that cannot be predicted. These kinds of unexpected events can occur by accident, that is, the entrepreneur did not seek out to generate the contingency (Harmeling and Sarasvathy, 2013: 715), or they can, to a certain extent be staged by the entrepreneur through effectual networking and the purposefully introduction of randomness that nourish the potential for contingencies (Austin et al., 2012; Perry et al., 2011; Sarasvathy and Dew, 2005). In contrast to causal networking, effectual networking values contingencies as an asset to be invested in, crucial to the success of the venture (Harmeling, 2011; Sarasvathy, 2001). As emphasised by Dimov (2010), there is great uncertainty in knowing whether a current situation constitutes an opportunity, and the answer to that question is unanswerable in the present, only to be realised and confirmed in hindsight (Dimov, 2010 (pub. 2017)).

### 3.5.7 Harvesting serendipity

As emphasised by Engel et al. (2017): “*The heart of the matter becomes how entrepreneurs leverage unexpected contingencies arising from both networking activities and exogenous sources*”. The presence of contingency is essential, though it is the approach and attitude of the entrepreneur that transforms a contingency into a serendipity (Engel et al. 2017). However, without disparaging the importance of skill and intuition from the entrepreneur's side, the picture painted of the entrepreneurial process and venture development is often glorified in the literature (Kirzner, 2009), and attributed to a certain group of gifted individuals (Shane & Venkataraman, 2000; Venkataraman, 1997), where no uncertainty or doubt is involved in the decision-making process. With the perspective of linearity projected onto the development process, describing the events without uncertainty and doubt, where all opportunities acted upon seems obvious in hindsight rather than one in a handful of choices, deems the conclusive

representation of development somewhat flawed (Dimov, 2010 (pub. 2017)).

Due to this unexplored side of networking, opportunity building and venture development, especially with regards to empirical data, emphasis has been put on the uncertainties encountered by the interview object, with the understanding that hindsight introduces an inevitable bias.

In relation to entrepreneurship, networking and venture development, defining business opportunity as a phenomenon is practical. First, distinguishing between the perspective of hindsight and that of foresight, deciding which end of the time line the research takes its stands introduces the formal and substantive perspectives of opportunity. Looking back at a venture development, one can pin point crucial actions and opportunities that elevated the venture, increasing its survival possibility, and a linear path can be carved out and tied to theoretical grounds, is called a formal perspective. Taking on the perspective of the entrepreneur in development and mapping out what information, situation, action and interaction that might lead to a fruitful opportunity is less straight forward and referred to as the substantive perspective of opportunities. As pointed out by Dimov (2010 (2017)) an opportunity is so far only empirically definable in retrospect, hence deeming the *in-situ* study of aspiring entrepreneurs inoperable. He lays out three (previously mentioned in the opportunity section) new approaches to the substantive perspective of opportunity which potentially lays new grounds for studying, in real time, the entrepreneurial process with regards to opportunity discovery and handling (Dimov, 2010 (2017)).

#### 4 Portfolio data

In “dealing with the elusiveness with entrepreneurial opportunities” Dimo, (2010), suggest three different methods for elaborating on processes of opportunity development: Opportunity as expressed in actions: as expressed in market structures; as expressed as a happening. The questions are not about which better method of elaborating on opportunities is, but that there needs to be consistency with research questions and aspects in how information is used to highlight inherent settings in the process. This will increase the relevance and generalization to the rest of the research field.

Thereby the method for presenting historical data, will be done in line with Dimo (2010): Opportunity as expressed in actions: To understand processes of opportunities, one can more

productively focus on the form and the elements of the actions involved in the process. This is done by directing attention to the material, final and formal causes behind an action, which represents the means through how and opportunity is expressed in actions. For entrepreneurial actions, this means to look at the underlying enabling resources and to some degree are under the entrepreneurs control and is the ingredients to an action. E.g. *“Signing a lease or establishing a customer contact can be seen as enabled by the entrepreneur’s financial resources or social contacts” Dimov, (2010).*

Followingly, is a set of interactions between stakeholders, which constitute a vital part of opportunity processing, which is argued to hold the key, for information exchange, processing perspectives through different mental schemes, interpretations. Together these to eventualities, serves as a framework, for where phenomenon’s or determinants, which affect the processes, will be reflected upon.

#### 4.1 Portfolio venture one

The company’s idea was identified back in 2011, as a result from interactions between an established company and a previous customer, who in this interaction had a new need. The idea was followingly recognized during a job interview for a MGMT position, by the current entrepreneur and CEO, of the company which are built upon this business idea. The business idea has been brought from the mentioned interaction, to a finished product and market commercialization, that has grown to a multinational company, since the company was registered in 2013. This includes customers in Norway, Sweden, Finland, Germany, in addition to current customer negotiations in England and France, through a B2B customer platform. Their business develops, produce and sell machineries for effectively and securely handle and dispose pressurized gas tanks. Followingly the company’s development and operational departments consists of IT-, automation-, electronics-, mechanics-, finance- and management competence and have become a vital part of sharing tangible and intangible resources in their rural areas technology cluster, i.e. Techno Hub.

##### 4.1.1 Business idea - Opportunity identification - actions and interactions

The business idea was first heard by the current Entrepreneur and CEO of the business, in a job interview in his rural area in the early spring of 2011. He mainly applied for a job to get further

experience and supplement in his economic situation, and was not there by an intention, to find a project.

### **Interaction one – Job interview**

He says the interview is characterized with a good tone, where they discussed everything from spare time subjects, their general interest in different technologies, to products that the interviewer's employer company was constructing, and the specific solutions the company had become known for in their rural area. During these conversations the business idea "sprung" out of the interviewer, who followingly, after some talk, reacted with seemingly doubting thoughts, that the business idea had to be held confidential. He assured the interviewer that this would be the case and no informational leaks would happen. Sequentially, interactions evolved towards technical functionalities on how a product that constituted this business idea could be defined. This definition constituted a rotational mechanism that was perceived as the core principle, on how the machinery would automatically handle pressurized gas internally.

### **Second-hand interaction**

He says the business idea had come to the interviewer's company, through a customer interaction, who had recurrently done business with them. Where this B2B customer needed a solution for a new problem. The company had discussed solutions with the customer to their problem but had not been able to land a defined solution with the customer, and nothing had been developed. Seeing that this customer had come to the company some time ago, mechanical employees have been discussing this idea in various settings, including during lunches, where the interviewer had participated from time to time. Initial discussion with the customer had been in regards of emphasizing an automated key trait with the product. He says this was done with a reasoning, for time efficacy for customers who would be handling /using the machinery.

### **Previous interaction on the business idea**

Previously, before the meeting, the current entrepreneur and CEO had heard about a similar product idea. This was elaborated to him from a friend, who he randomly discussed new business ideas with, which were from the same rural area. This acquaintance was a technically interested friend, who had frequently visited him at his last job, - "a guy from around the area, which frequently kept coming around their production facilities and talking to people", - "he was known

there”. The entrepreneur used to indulge him and kept discussing ideas etc. with him. During these conversations they discussed the same kind of idea, that he later had become familiar with during his job interview. He says he liked the idea at that time also, but “didn’t take the guy to seriously to be honest”, and I just never initiated work with him: - “It was always in regards of talk and discussions”. “He has several good ideas, but...”.

The entrepreneur speaks of the discussions during the job interview, regarding the same business idea, in terms of, “the idea seemed more refined and had specific technical suggestions to different key attributes of the idea solutions (e.g., user process, mechanical rotational devices (key-core technical function)”. This was in addition to discussions regarding named electronic components). The entrepreneur also highlights the potential customer insight, that there was a need for the idea, i.e. the idea was connected to a specific problem, who had been verified by a potential customer.

Further, highlighted was the fact that the interviewer company had established itself and completed a wide range of engineering solutions beforehand and was known for quality products. He also mentions access to economic capital, human capital etc.

In general, he says he liked the project in terms of technical level and he believed in the initial layout of the concept, that was discussed in the interview. In addition, it seemed more real, when he had a door opened to the interviewer firm, which made it seem more achievable. Followingly, he leads to thought patterns, involving, that “he just wanted to try it out” – “he had “always” been thinking of doing a project on his own.

### **Followingly phase of long term actions:**

The interviewer and the current entrepreneur decided that the entrepreneur would work with the business idea for a while to “see what came out of the process”. It was at an initial ground; the company had not done any work besides discussing it. So, he started from scratch besides the discussions on technical solutional and one customers, identified need. When not working his part time job, and spending time with his wife he worked on researching the business idea. He highlights this phase regarding the “usual stuff”; talking to potential customers; talking to engineering firms (Especially electrical engineering) web searching; documenting what he found. He formed a belief, that there was a potential market for this idea, beyond the initial business customer segment which he had set out to explore. He can’t remember the specific situation where

this occurred, but somewhere throughout these exploring interactions and research, he formed a belief for a business to consumer market. I.e. a new market and the initial market it had seen in the beginning, which originated from a customer. Which seemingly “just” would need an alteration to how the machine was accessed by customer.

Along this process he applied for soft funding and started to travel internationally. Especially emphasized how he had found a business group in Sweden, where one of the daughter companies operated with technology that handled pressurized gas. At this point in time he initiated reoccurring conversations and information exchange with the interviewer’s company, on a general level. Somewhere along the lines of where he constituted a strong belief in the market potential of the project, he also initiated an on-going and various conversations to the firm where he had applied for a job. Where he emphasis keeping up to date is important, and involve them in discussion along the way, to increase the commitment.

As he formed a stronger belief in the market, the entrepreneur decided to approach the interviewers firm again. This time for an official meeting where he would try to obtain resources, to further develop the product concept.

### **Pre-interaction preparations.**

Before the meeting the gathered research was used to make a market plan and business model, emphasizing potential in the market, his newly found market, units sold, revenues and resources needed. He emphasises, that he played focus on a plan for the practical setup of the planned company: “All will be much easier for them then”. -> When they are able visualize, how the revenue is generated, how does transportation happen, what activities will become the company’s main activities, what activities will the company need external partners for, etc. He also, didn’t have a big plan of action, “just keep in mind som activities, in case that the people you are meeting, asks”. “It’s good to seem prepared and a good way to increase ownership, by making the stakeholders participate, in forming a plan of actions”. “That way, a part of them gets included in the process”. Prepared with market potential, customer insights, and a model for the business, he approached the initial firm where he applied for a job. What the firm emphasized, in its evaluations was the amount of research that had been put to play, the market potential and how they could use resources already established in their firm.

## 4.2 Portfolio venture two

### 4.2.1 Business idea - Opportunity identification - actions and interactions

He says a business idea was formed, after he heard of a problem, from an acquaintance. Followingly he got curious because he related to the problem and had seen the problem himself, without thinking more of it at the time. He took note of the issue and started talking to people he met in the time afterwards, curious to see whether it resonated with others as well.

He got to work and formed an idea that could potentially solve the issue. He used what he had experienced through work in previous ventures and talked to potential customers (resellers) directly and received positive response. He says this was mainly in the form initial ground clearing: how they would or could be interested in reselling such a product, and how they saw a market for the business idea. Throughout this process he approached business acquaintances, who he believed was up for the challenge. He had identified a problem, come up with a business idea, and gathered initial responses from customers, and was looking for a team of competent individuals. He attracted three acquaintances, who started work on the business idea, in the form of talking to customers and conceptualizing the product. One of the team members had contacts that was used for the product conceptualization, having a technical education and several years of work experience with product development. Throughout this period, they continuously worked with customers and developed a product on “paper”, resulting in several small-scale, simple prototypes, to test key mechanical functionalities in practise. In general, this initial phase was constituted by a series of actions and interactions with customers and acquaintances that led to an initial understanding of the customer market and how the product should be functioning.

After gaining soft funding and business angel capital, they moved to develop their first fully functioning prototype. Even though one of the team members was a product developer, the CEO and his team decided to engage with a developing company, which they had found through internet searches. He says they had done evaluations of them by information provided on their website and initiated a first meeting to establish a relation. He says the meeting was quite tense, but they had agreed on a strategy and the total framework of the product that was to be constructed.

He says his first impression of the company and representative engineer was divided. He seemed polite and detailed oriented – “just the way you think a good engineer should be”, but at the same

time he seemed nervous. This he found odd, seeing he was a senior engineer with many years of experience. They kind of “hit it off”, during their meetings, where they had good and constructive discussions. He emphasis he was always on time and well prepared to their meetings. In addition, he got to build a relation with him, because he sometimes talked about his personal life and what was going on besides his work. They had seen eye to eye, during an ongoing problem with one of the developer company’s (engineering) subcontractors, which they had a “problem process” going for over a period of several months. They had eventually solved the problem, which he believes strengthen their relation and might be one of the main factors for why they kept in touch after this project was over.

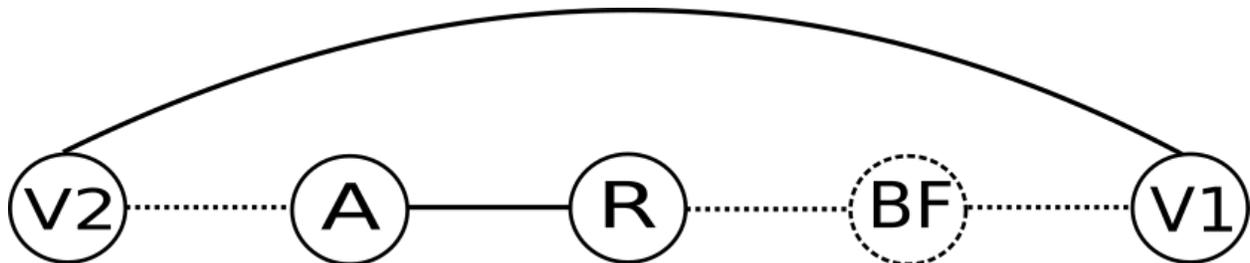
### 4.3 Actions and interactions between venture one and venture two

This section elaborates on the actions and interactions involved in the two ventures initial connection, through an acquaintance, and how the two ventures followingly preceded to interact, to the point where they reached a conceal agreement to establish a new link in the portfolio.

#### 4.3.1 Interactions leading to first meeting

##### **Interview by Venture two**

The entrepreneur of venture two says the interaction started in form of acquaintance of his, whom he had been talking to in regards of his venture on private and unprofessional level. The acquaintance of his, had a relative whom had been in business contact with the entrepreneur of venture one. This was due to a venture that the relative had been developing, and they had met a business fair. (NB: His venture is established in none of the portfolio ventures, urban or rural areas).



\*V2=Venture two, A=Acquaintance, R=Relative, BF= Business fair, V1= Venture two

The entrepreneur of venture two had followingly talked to the relative, who mentioned that he had met the entrepreneur of venture two, at an industry fair, and they occasionally (rarely) talked to

each other, “just keeping up to date on what was happening”, after the industry fair.

The relative, informed venture two about venture one, in regards of, how he believed that products both constituted mechanical, software and electrical engineering, and the system principles behind the product layout had similarities and he followingly believed there could be a good resource match.

### **Interview of venture two.**

The acquaintance told venture two about venture one’s business idea product. The CEO and his partner became interested, because it was relatively new business experiencing international growth, and that they themselves were looking for investments and more technological competence to bring the venture to “the next level”. Further attention was created because their product seemingly was built on a similar technological principle as their own, and the CEO believed that there could be several defining perspectives on the product in addition to evaluations and choices of technological components. As well as experience and knowledge about how the bigger lines on how to commercialize and set-up a business instituted to its market, on the different levels in their value chain. He also emphasized that he recognized that this too was software-based, and with a potential fit to scalability to their own product, potentially and significantly reducing the development costs.

Before engaging in the meeting, they sent over their business and market plan, and summary of their dialogues with customers who had been participating in knowledge sharing, with regards to revenue models, factors between the product and market fit, preferred product feature factors and practicalities about how the product would be integrated and operated in its environment.

### **Meeting one**

An unofficial meeting took place in Oslo, which was post to an evaluation of venture two’s business plan and market research, by two of the entrepreneurs of venture one. The entrepreneurs from venture one says that he got the impression that it was an exciting project in terms of market potential and that it was up their alley with regards to competence and resources needed, and he was excited about engaging in a meeting with venture two. However, this impression changed rapidly when the meeting unfolded. The representative of venture one (now a former co-entrepreneur) described the entrepreneur of venture two as a socially “nice guy”, but “his business

sense wasn't there". (The entrepreneur didn't want to elaborate further on this), but he says it ruined the potential of the project from their perspective. The entrepreneur of venture two has a relatively positive attitude when talking about the meeting. To his knowledge they talked about business perspectives, and that their venture was to follow up the meeting. He called and asked for a new meeting, where they would travel to their rural area, and present their case further. The entrepreneur from venture two, says that when venture one called for a meeting, they chose to have a meeting out of pure courtesy and politeness.

### **Meeting two**

The CEO of venture two says they arranged a meeting with the intention of creating a general interest in their venture, in addition to get an impression of the entrepreneurs behind venture one and to evaluate if there was a -fit- between them that could hold the potential for a valuable co-operation on a human level. He also says that they were looking for someone who could be a potential active involved co-owner, even though this served as secondary objective of the meeting.

During the meeting they discussed the technological solution from venture one, both in regards of its strengths and challenges for further development. Venture one participated with a board member, the CEO and head of development. During the meeting interactions led to a multitude of new thoughts, both with regards to revenue models and who the customer was and could be. Discussions were held on how the ventures worked with customers. Further, questions on how the business set-up customers be in particle terms (e.g., how service would be done, how would the revenue model for service work, warranties etc) were asked, discussed upon and answered.

The CEO of venture two emphasises how venture one kept mentioning that they did not participate in ventures where they did not own at least 34% of the stocks. After the meeting they received a tour around the development and productions facilitates, described as "really impressive" by the team of venture two.

### **Reflections and perspectives after the meeting, by entrepreneur from venture two:**

He says the team had in general a good impression of venture one's company, facilities and two of participants in the meeting, but he had a feeling that they should have done a lot more pre-research about them before the meeting. The dynamics of the meeting was for the most part controlled by venture one, "in meetings, information is power", he emphasises, never expecting

the team of venture one to be that informed and advanced with regards to machineries etc.

The meeting ended with a goal, regarding the different revenue models that had been discussed: venture two was to test the market further and return with 3 new customer deals, and a revenue model. This model had been evaluated previously, but not included during their customer interactions due to the revenue model's high capital risk. To realize this model, they would need to «bind» a great deal of capital in futuristic commercialized venture operations (i.e., working capital).

What the CEO of venture two emphasized was experience and weight of the team of venture one, who during the meeting had contributed with thoughts and shared experiences that shed light on their process in a completely new way. In addition, he gained a perspective on how the ventures co-infrastructure could be accomplished, in form of customer and maintenance service, and maintenance of products in the market. Also, that in this way, a company could establish closer control of production and its inherent product warranty and economical risks associated with this.

### **Reflections and perspectives after the meeting, by entrepreneur from venture one:**

An absolute crucial factor of the second meeting was the impression the CEO of venture one obtained of the other guys behind venture two, creating a new confidence in the group. “They made the whole project interesting again”. Other crucial factor was especially new insights they received from evaluations of market potential, customer research and good income opportunities from several possible business set-ups: perspectives on how the business would be institutionalized in its market structures and inherent key activities, income models, etc. They did not see any links of potential synergism between their markets, which also made the case interesting, as they could learn about new markets. They did see cost synergisms, links with regards to national and international transportation, service and customer acquisition. “The service model is a secondary key revenue generating factor in their business model, and even though it wasn’t planned for at that time, there was a great development potential with regards to this”. Coordinating personnel, travels and integrations to software on this level, would absolutely be cost efficient.

On the technical side they saw strong links. This was also quite important for the evaluation, seeing use for their new and existing software systems and platforms. They were developing a mobile application as well, where the app functionalities could be tweaked to fully match venture two's

needs. This would eventually speed up the growth phase considerably when launched in the market, in addition to considerably reducing cost.

#### 4.4 Portfolio venture three

Venture three's business idea was identified as a problem in its environment by an engineer back in 2014, who is now a co-founder of venture two. He is also working as an engineer freelancer and has a part time job. The business idea emerged from being frequently exposed to the same environment when cycling back and forth between his job and home through Oslo city's urban areas. This venture was first conceptualized in 2017 and has through cooperation with people in venture two been exposed and tested in different markets and to different customers. This work has led to agreements with customers and is currently in a phase of retaining people to test a prototype in interactions with customers. The business idea is constituted by mechanical and -industrial design, and software and – electronic engineering. The engineer and current entrepreneur has left this employer due to cutbacks, rooted in difficulties in the Norwegian oil and gas industry, which served as a key-customer segment for this business.

##### 4.4.1 Business idea - Opportunity identification - actions and interactions

While cycling back and forth between work he identified a problem in his nearby urban area. Thereafter, and during his ongoing trips back and forth between job and home he had been continuously thinking about and observing the problem in its environment. This concerned around the potential of the problem with regards to market size, how and if other perceived the problem, were the other problems associated with this problem, and how would a solution work etc. Over time he kept noticing the problem in other urban areas, as he used to cycle different routes.

Another aspect that he mentions that were connected to starting with an independent project, was regarding his employed work and family, that both demanded time and energy. As time went on, he never got around to working on it. He mentions this was also connected to the fact that he was not sure about this opportunity and the market potential, or how potential customers experienced this problem.

##### 4.4.2 Pre-leading actions and interactions between venture two and three

Through a consultant job he met venture two. He had contributed with industrial design and some core mechanical functions on a technological product development project by request from venture

two. He says the project was rather under budgeted and as a result they had to cut back on hours. He works regarding the mechanical aspects of the product went as planned, as well as electronic systems and components. What suffered the cutbacks was software development, which resulted in simple and basic functionalities.

As he worked with the technical development, he interacted with the entrepreneur of venture two through meetings of various kinds, through telephone and mail, in additions to face to face, discussing development challenges and how the project was keeping scheduling.

He also highlights that they had met outside scheduled work during this time span, they had carpoled to town and on one occasion they had gone for beers. He describes the entrepreneur of venture two as one who kept control of situations, even in situations under time and financial pressure. In addition, he perceived him as down to earth guy, with one thing in his mind: to realize his venture.

#### 4.4.3 Actions and Interactions leading to commitment between venture two and three

During the next few months the entrepreneur and the engineer kept in touch per telephone and mail, discussing the development progression and feedback from the market. This was especially concerned around the electronics and integration of the customer via software, and how it behaved during testing. He had given feedback and advice for further changes, based on the key attributes and functions that had been especially tested. The following months was constituted by a series of interactions to keep up to date with progression of the project, the engineer's professional life and both of their private lives.

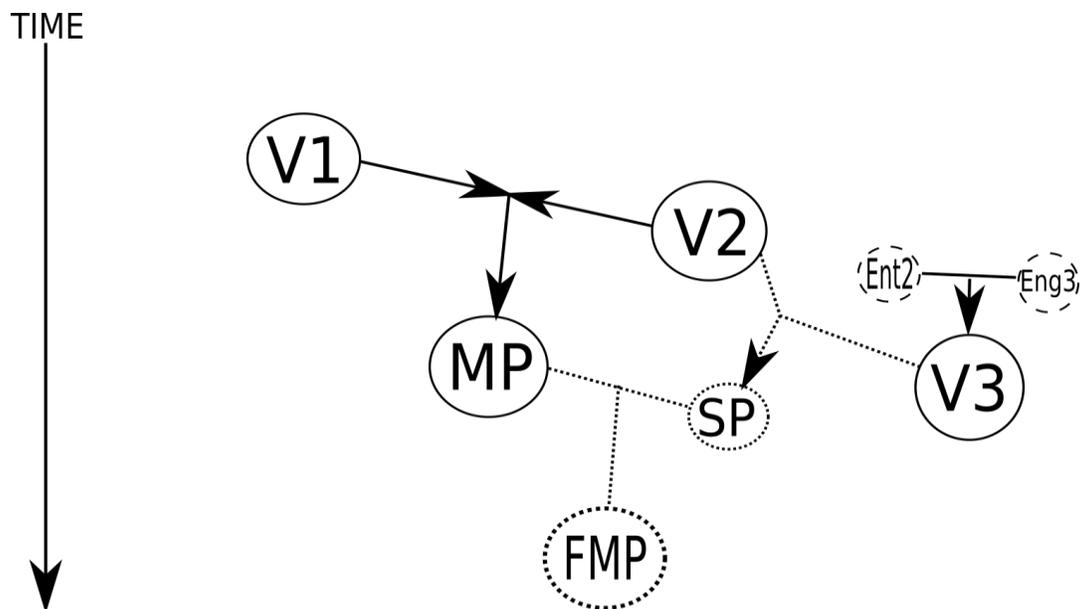
After leaving his part time job, he gained some spare time and started working with a conceptual technical design to his idea, which he presented to the entrepreneur of venture two, and kept him up to date with the development. He expressed his ambitions regarding moving forward, and how he was capable of handling everything apart from electrical- and software engineering, towards development of a product, and that he had no skills regarding business or customer interactions. He wondered whether the entrepreneur would be interested in being responsible for the mercantile side of a venture.

#### 4.5 Committing interaction between venture two and three

The entrepreneur of venture two, says he was approached, by the engineer who had worked for their venture by phone and told the entrepreneur that he had been thinking about a business idea. This is the problem that the engineer had identified when he was cycling to work. The engineer had elaborated on how he had kept seeing it everywhere, and he believed that this could be something with market potential, and referred, to what he had seen. The engineer emphasized that he had control of the technical development but described himself as not a businessman and a “business meeting kind of guy”, with no idea on how take it to market and everything that was involved in this, from a business perspective. Where the engineer asked the entrepreneur if he could be interested to develop the business and market side.

The entrepreneurs perspective on it, was that he saw potential in the idea - “they need this in every city in Europe”. The entrepreneur says he draw belief in his team's experience from developing venture two and engaged in a series of market actions to research and get first-hand information from potential customers. The entrepreneur also emphasized how developing and producing its product, had a technical and resource fit, to the other ventures in the portfolio.

#### 4.6 General overviews of actions and interactions, that created a fuel for portfolio creations.



Figurative timeline, outlining the formation of established venture development (solid lines), and potential future developments (dotted lines). V1= Venture one, V2 = venture two, V3 = venture three Ent2 = entrepreneur of venture two, Eng3 = engineer of venture three, MP = main portfolio, SP = side portfolio, FMP = future main portfolio.

## 5 Analysis

### 5.1 Portfolio venture one

#### 5.1.1 Interactional idea background

The initial idea that was formed came from an unsolved problem identified by a customer of the interviewer's company. This customer had previously done business with the company and sought to the company for help with this new issue, implying that the relation between the parties in the B2B interaction was good, and that the company had previously invested enough time and resources into their customer to make them want to return. A satisfactory solution was never found during the B2B process, but the engineers in the company had kept the problem solving going amongst each other, motivated by the engineer's various motivations: pure interest, intentions to follow up with the customer etc.

An underlying reason allowing for the idea to be initially acted upon, lays in the customers insight to information regarding a problem in its market structure, that through a previous satisfactory strong relation, is brought to the interviewer's company (i.e. reputation and experience). This serves as a necessity for an individual identification process (Kaish & Gilad, 1987). At this point in time, it can be argued that it is part of a process that constitutes supply and demand, as normal business actions, but the information set is brought forth to the entrepreneur through a set of interlinked interactions. As the problem reaches individuals with different competence and different mental schemes, this starts a process where the problem is moulded towards a solution, due to the different perceived perspectives of a problem - solution (Kaish & Gilad, 1987).

From the point where the solutions are discarded by the customer, it is noted that the engineers continue to discuss and evolve a solution over time, where it arguably goes through a social creative process, driven by different mental schemes, informational exchanges and interpretations (Kaish & Gilad, 1987: Dimo, 2007).

The problem - solution idea comes along at a later stage, through interactions with a MGMT/Human resource individual, which conducted a job interview of the current entrepreneur

and CEO of the venture.

### 5.1.2 Interview interactions

Throughout this interview a series of interactional and social dynamics was unfolded:

The current CEO, without any entrepreneurial intentions or goals, attended the job interview, where the idea came up spontaneously, through the interviewer. The interviewer did not plan for it either, in the light that the setting in general is pre-defined to general business and strictly speaking does not directly open for the kind of interactions that took place in this case. This open-ended approach by both individuals, is argued to be crucial for the creation of a contingency and a potential serendipity and quoting Engel (2017) who proposes: “entrepreneurial networking to require a more altruistic approach to interpersonal interactions and openness to unexpected contingencies as networking activities stimulate serendipitous goal formation and transformation.”

It is emphasised that they conversed about common interests, technological solutions and personal hobbies. This indicates that they got along on several levels, not just on a professional one. This is referred to as homophily between the two individuals and is emphasized by Engel (2017) as one of the important factors for initial networking. One could of course argue that this was because of common courtesy from both ends, but in any case, this still ended up making the both comfortable enough to open and reach out towards these initial grounds of the venture.

The interviewer expressed insecurity regarding the confidentiality of the idea, which he “burst” out uncontrolled in the interaction, and followingly emphasized that it had to be kept confidential. The entrepreneur assured the interviewer that the idea would stay confidential, and kept his word, and kept on talking, which can be identified as an act of intelligent altruism (Engel et al. (2017).

These interactions are a good example of how, out of two non-intending individuals, the initial ground of a venture is formed, and a pre-commitment is established through a series of interconnected interactions, and actions. Where different mental schemes and social interactional processes transforms an idea to a different state. Where an alert individual with an altruistic and open-ended approach to an interaction, beyond what is predefined as the interactions purpose, receives information and identifies its potential. This implies that the identification and initial grounds of the current multinational venture is at one level a consequence of serendipity (Engel, 2017).

These processes can also be seen in a perspective where it was first perceived within an existing means - ends relations, and through a series of interacting individuals and “social creative processes” it is brought to an individual, by networking phenomenon/strategies, whom by a previous identified entrepreneurial will/dream/wish, is alert enough to recognize the potential, and thereby starts exploring, outside the existing means - ends relationship.

What is interesting to look at is that both parties, the interviewer and his company, and the entrepreneur had both visited the idea before the job interview and the “official” identification of the business opportunity.

The entrepreneur had heard the idea from a man who came by his workplace and often discussed ideas. The entrepreneur emphasised he liked the guy but didn't take him to seriously. In contrast, to the interaction with the interviewer's company, where he emphasised that the idea from the interviewer's company seemed more refined, and was in state consisting of product attributes, key functionalities and specific components. Both scenarios constitute a third hand idea source, an innovator if you will. None of them had acted on it, and what the data indicates as a differentiating factor between them is a more concrete and refined idea, which arises in the situation where the entrepreneur would have, without emphasising it to the author, easier or at closer range, access to various resources from the interviewer's company. This fuelled a series of following market exploratory actions (Dimo, 2010 (2017)). Which in addition can be linked to an easier process of visualising a means - ends relation (Shane & Venkataraman, 2000).

Combining this with the fact that the entrepreneur had visualised himself starting something of his own on several occasions, and therefore harboured a lot of potential or drive to kick-start an opportunity development process. In addition is the fact that both parties had previously touched upon the idea and acquired thoughtful momentum and came together in an open-ended and light-hearted job interview rigged for a situation where a problem, had become an idea, which was decided to act upon and followingly a business opportunity was born, with informational momentum.

*As a last note*, one can define the idea as an opportunity though Dimov's definition as *Instituted in a Market Structure*, or just an idea that came from a customer need, or that had not yet been acted upon, and hence was not an opportunity by the definition *as expressed in action* (Dimo, 2010 (2017)). The answer depends on how one chooses to define an opportunity regarding Dimov'

definitions of opportunities. One could arguable say, in this case that both definitions are needed to conclude both the phases or processes, of how a problem to be “fixed” and exploited is recognized in a market contextual setting and how the problem - solution nexus is followingly acted upon, towards a process of acquiring information that is transformed/moulded through a series of actions and interactions, towards exploitation of the perceived opportunity.

## 5.2 Portfolio venture two

### 5.2.1 Business idea - Opportunity identification - actions and interactions

The idea of venture two came about during a conversation between the entrepreneur and an acquaintance, where the acquaintance complained about a problem, in a leisure setting (i.e. on the spare time). Followed, by curiosity, the entrepreneur remembers this issue, and brought the theme up in following conversations with close and distant relations. In this, he exercises open-ended networking, which resulted in confirming that the problem, at least to some extent, was a common one. Common enough for him to subjectively perceive it valuable enough to continue action on it, on behalf of the implied information that has been exchanged in the social interactions (Shane & Venkataraman, 2000; Dimov, 2010). Networking with existing ties is simple in the sense that no initial action needs to be undertaken to approach the tie, usually being the initial form of networking action in the uncertain beginnings of a venture (Baker et al., 2003; Sarasvathy, 2001). Where, homophily creates the grounds for which the acquaintance recognises the space to vent about a certain problem. This is again emphasised by Engel et al. (2017) as nourishing for both existing and new tie formation when an entrepreneur engages in networking actions and helps open for conversations. Again, it can be argued, that the “venting” of a problem was not intended towards business idea or opportunity, but because alertness to entrepreneurship, and arguably previous experience, that could be linked to some sort thoughtful searches, the entrepreneur recognizes it as potential entrepreneurial opportunity, contingent in some favourable accidents and prior knowledge (Dew, 2009; Kirzner, 1985), which is known as serendipity (Engel, 2017).

In total, it is clear how the entrepreneur participating in networking, in a relation constituted by a combination of social and business intentions, with existing strong ties, and indirect and weak ties, that access along the lines of his process of “bringing up the identified problem them” in other interactions. Which are linked to a networking intention that “individuals interact with others not

only because, they try to obtain benefits, but also because human interactions are a part of being human (Engel, 2017; Klyver et al., 2011:152).

### 5.2.2 Longer phase of actions

After the initial stages with the entrepreneur exercising, which can be characterized as effectual networking (Engel et al, 2017), he switched into a more goal-oriented, causal approach with potential customers and business acquaintances, and attracted interested parties from both ends. This implies reducing the uncertainty associated with the venture development and filling the gaps with regards to the market through informal deals with potential clients while also attracting capable business partners who contributed with technical and business competence concretised the venture even further. The entrepreneur capability to gather information, potential clients and a team of interested and competent partners under the relatively large uncertainty regarding the venture is of crucial importance in the early stages of the development. In contrast to the entrepreneur in venture one, who decided not to act on the idea with his friend from work, seeing too large a risk or uncertainty, the entrepreneur in venture two had a different approach, and starts the venture anyway. Looking into why some entrepreneurs decide to go the long way and build a business from scratch, and others wait until they can partner up with someone already established, is interesting due to the differences in what kind of networking strategies they use, and in which periods of the development they apply them.

In venture one, the entrepreneur had to “impress” and convince the established stakeholders that the idea was worth investing in, performing a lot of research and work in his spare time. His networking strategy was open-ended and effectual until a deal was signed by the interviewer and his company. In venture two, the entrepreneur started with the idea and builds a team and a portfolio of potential customers relying on the potential of the venture, changing to a goal-oriented networking approach quite early in the process.

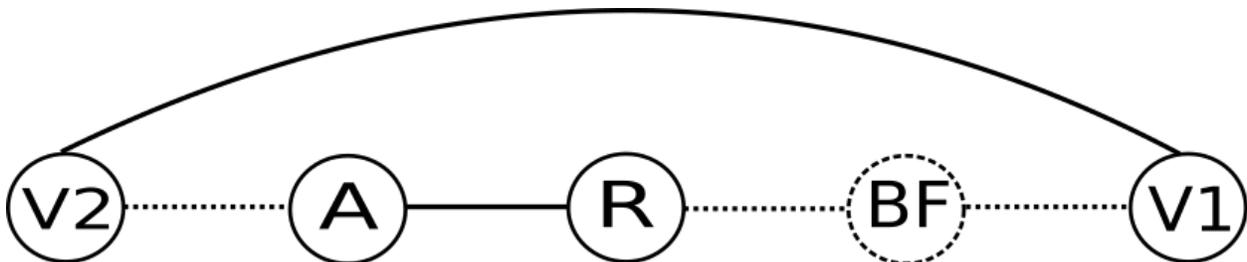
**Different networking strategies:**

Time	Venture one	Venture two
Pre-opportunity identification	Open-ended Intelligent altruism	Open-ended Effectual
Post opportunity identification	Causational Pre-commitment	Goal-oriented Causational

**5.3 Actions and interaction between venture one and venture two**

**5.3.1 Interactions leading to first meeting between venture one and venture two**

The entrepreneur of venture two says the interaction started in form of acquaintance of his, whom he had been talking to in regards of his venture on private and unprofessional level. The acquaintance of his, had a relative whom had been in business contact with the entrepreneur of venture one. This was due to a venture that the relative had been developing, and they had met a business fair. (NB: His venture is established in none of the portfolio ventures, urban or rural areas).



\*V2=Venture two, A=Acquaintance, R=Relative, BF= Business fair, V1= Venture two. Dotted line represents weak tie, solid line represents strong tie.

First, the relative, himself being an entrepreneur, gives a prime example of intelligent altruism, introducing two similar ventures and lays the ground for a potential cooperation. Exercising what Engel et al. (2017) points out as one of the main effects in entrepreneurial networking; spreading the word and making use of his own established network, helping both ventures in their development process. It is also underlined that these two entrepreneurs had over time formed a continuous relation, talking to each other, “just keeping up to date on what was happening” after the industry fair, exercising open-ended networking (Engel et al., 2017). It also underlines the importance of business fairs and staged networking events where entrepreneurs gather, to

causationally, effectually, goal orientate or not, network with new and existing ties. Venture one acts by attending the business fair, leading to a series of interactions, one leading to venture two.

Second, the relative informed venture two about venture one, motivated by how he believed that their products both constituted mechanical, software and electrical engineering, and the system principles behind the product layout had similarities. He followingly believed there could be a good resource match. This implied a complementary resource match between the venture, which can be argued to hold a potential synergism towards a portfolio formation between the two ventures. This serves as an evident reason, at one level, for what fuelled these interactions towards an action of a new meeting between the two ventures (Dimo, 2010).

Third, it is also important to emphasise that the entrepreneur of venture two actively reached out and was looking for potential investors and actors to join his venture, used his existing ties, and in the process enables himself to create a contingency in his network, which he later exploits through a series of actions and interactions (Dimo, 2010).

### **5.3.2 Meetings between venture two and venture one**

This process of actions and interactions from first connection, to formal agreement of forming a portfolio constituted by these ventures, happens to a multitude of actions and interactions, but due to limitations of this study, the actions and interactions is narrowed down to the initial beginning of the interactions and the inherent meeting to this beginning. Secondly, interactions that is rooted in a meeting, that was referred to as a key or critical meeting from both entrepreneur, are elaborated upon.

The knowledge about an established company that developed similar technology made the entrepreneur of venture two curious and he identified an opportunity in them as: advice givers, investors, or even partners. Through networking, an opportunity arose quite randomly through a series of strong and weak ties:

#### **Meeting one between venture one and venture two**

The first official meeting between venture one and venture two can be regarded as a failure for venture two, especially with regards to the social aspect of the interaction. The entrepreneur failed to create an interest from venture one, on an individual level, who did not see the worth of investing more time and energy in the cooperation. Venture one regarded the entrepreneur of venture two as

“not business oriented enough” and decided not to follow up. However, venture two, in good spirit, calls and asks for a second meeting which altruistically is accepted by venture one. This act of politeness, deciding to host venture two during their visit, spending energy and time on them without any obvious potential for cooperation goes to show how altruistic behaviour plays a crucial role in entrepreneurial interactions. Accepting the meeting, not with the intention of giving benefit of the doubt, or a conscious act of altruism, aligns with what entrepreneurship scholars write about altruistic behaviour in entrepreneurial interactions (Saravathy and Dew, 2008; Van de Ven et al., 2007; Porter and Woo, 2015). It is also worth noting that the enthusiasm of the entrepreneur of venture two is important. The act of following up and asking for a second meeting proves to be essential in this story line.

### **Meeting two between venture one and two**

The second meeting between the two ventures is largely characterised by technical discussions. Venture one digs into venture two’s business strategies and technical solutions with regards to development and customer handling, and puts the project under scrutiny, testing its foundations.

### **Reflections and perspectives after the meeting**

The two ventures entered the meeting with different expectations, however, venture one spots potential in the other team members of venture two, and interest in the project is nourished back to life throughout the meeting, demonstrating how the human aspect of entrepreneurial business is just as important as the objective details and viability of the project. In addition, though the mechanical solutions, and the research that were presented by venture, which was regarding the solutions fit to its market. In addition, this was evaluated upon, a multitude of revenue models and futuristic economic potential, which in this case can be drawn to opportunity evaluation towards a market structure, defined by Dimov (2010). The project’s potential is through these factors strengthened as venture one uses their mental schemes to evaluate the information (Shane and Venkataraman, 2000). By highlighting these dimensions of the project, venture two demonstrates the business-oriented mentality that was missing in the first meeting, reducing the uncertainty of the perceived opportunity, encouraging the formation of a pre-commitment (Engel et al. 2017). Even without the extensive experience venture one possesses, venture two hit major and important points, convincing venture one of their capability.

The entrepreneur of venture one points out the potential he identified in the opportunity with regards to its fit or potential in a market structure (Dimov, 2010). New ties can be formed, different perspectives and experiences can be obtained, and new opportunities can arise (Engel et al. 2017). This is hypothesised by Dyer et al. (2008) as: “the most important distinguishing characteristics of these individuals (read: innovative entrepreneurs)” and demonstrates the experience of venture one as an established venture.

The change of opinion venture one undergoes is crucial in venture development, demonstrating their open and mouldable attitude, which Engel (2010(2017)) argues is one of the building blocks for creating contingency and harvesting potential serendipity. The negative impression from the first meeting does not overshadow meeting two. Additionally, had the entrepreneur of venture one passed on the request for a second meeting, choosing a non-altruistic approach, the opportunity of the venture, and a possible portfolio formation, would be missed.

#### 5.4 Portfolio venture three

Venture three's business idea was identified as a problem in its environment by an engineer back in 2014, who is now a co-founder of venture two. He is also working as an engineer freelancer and has a part time job. The business idea emerged from being frequently exposed to the same environment when cycling back and forth between his job and home through Oslo city's urban areas. This venture was first conceptualized in 2017 and has through cooperation with people in venture two been exposed and tested in different markets and to different customers. This work has led to agreements with customers and is currently in a phase of retaining people to test a prototype in interactions with customers. The business idea is constituted by mechanical and -industrial design, and software and – electronic engineering. The engineer and current entrepreneur has left this employer due to cutbacks, rooted in difficulties in the Norwegian oil and gas industry, which served as a key-customer segment for his employer's business.

##### 5.4.1 - Business idea - Opportunity identification - actions and interactions

The initial idea was spotted as a problem, in the rural areas of Oslo, as the engineer was cycling back and forth between his job and home, implying that the first identification was in a perspective of its market structure (Dimo, 2010). At this initial point it can be argued that the uncertainty of

how the individual perceived the problem or market opportunity was high, but as he continued to identify the problem in other areas of Oslo, he emphasizes that he started to “work” on the problems with regards to a solution. Most of it was in a thought perspective (i.e. not on paper or physical construct). At this point the process was in terms of his knowledge corridors and mental schemes, based on his engineering background (Shane & Venkataraman, 2000). Connected to his perceived degree of uncertainty and how the process was not fuelled at this point for further action, as he emphasises, due to obligations to family and work (Dimo, 2010). A second reason could be connected to the fact that he at this point had very little information of its market potential and e.g. how potential customers perceived the problem, as the engineer mentioned, was a part of his thought processes. It is also worth noticing the fact that because of cycling back and forth in Oslo his mental schemes were repeatedly filled with perspectives with regards to the problem he identified. In total, this lays the grounds for prior information, that upon a meeting with an acting entrepreneur, to be perceived as an opportunity to be acted upon (Dimov, 2010). Once again, this identification process, can be linked to some sort of degree of alertness in the individual who is able to recognize the problem or not exploited opportunity in its market (Kirzner, 1985)

#### 5.4.2 Actions and Interactions leading to commitment between venture two and three

Without any actions besides thought processes, the engineer engages in a project at work, which is arranged by the entrepreneur in venture two. Their actions and interactions are intuitively and initially on a professional basis, i.e. a business relation. What constitutes their relational actions and interactions is professional problem solving and project MGMT. During these processes, the engineer and entrepreneur interact frequently: they got along well, both interested in technological solutions, and filling the gaps in each other’s interests. This implies, that more than a business relation was established, as he emphasised, they carpoled and had a beer on town. This homophily, that evolved between the entrepreneur and engineer is vital for the creation of a strong tie (Engel, 2017), which acts like an incubator for contingencies.

#### 5.5 Committing interaction between venture two and three

The relationship between the engineer and the entrepreneur of venture two is described as friendly and relaxed, to the extent that the engineer reaches out to the entrepreneur and invites him to develop his venture idea. Both had invested time and efforts into the relation, not necessarily to

nourish a future venture development, but to establish a tie to another capable individual. Again, by treating a tie, established by networking activity, with investment of time, energy and care, a contingency is formed, and a pre-commitment is established between them, crucial for venture development, especially concretising an idea into further development processes (Engel et al. 2017).

## 5.6 Summarizing

The identification of the portfolio's opportunities comes from different actions, where two of them is a result of engaging in interactions, and one of them is spotted in its physical contextual market setting. (i.e. where the transaction of value exchange occurs). What is interesting here, is that both entrepreneurs in venture one and venture two acquires insightful information through their networking ties, where this interaction can be characterized as a critical and founding brick of the ventures. The venture, established in its unique form into what it is now, would never have happened if it weren't for networking actions and interactions. One cannot say with certainty that the ventures problems and solution fits wouldn't have been discovered by another enterprising individual, or e.g. if the interviewers company would have found another way to develop the opportunity themselves. In this case it makes networking critical for the entrepreneur, but not for the opportunity itself. This goes for the entrepreneur in venture two as well, who acquired insightful information through his network that was later acted upon. The different case is with the entrepreneur of the third venture, whom himself identified the problem and started a process to mould a solution to it. Nonetheless, as he reported, he was not a guy for the business part of it (i.e. talking to customers and starting the entrepreneurial process of pushing the idea towards market exploitation), which implies at this point that it was a necessity to acquire contact with the entrepreneur of venture two. At least this was how he perceived it at the time, not aware of what could have come to cause if the entrepreneur of venture two had accepted.

The opportunity of creating a portfolio arises from the network of the two ventures. Venture one is already established, known in the national and international network. Venture two is fresh and relies on existing ties and a strong effort of establishing new ones to expand the reach of their network. Through interactions with strong and weak ties, see figure 1, venture two is informed of venture one, and by acting on this opportunity by setting up a meeting, a portfolio opportunity is created. Venture one was at a business fair, interacted with a common tie. The opportunity of

creating a portfolio consisting of venture two and three arises from the strong tie established through a business relation, where the main actors of the two ventures goes through a series of interactions leading to the opportunity identification of venture three. Due to the synergies between the technologies of the two ventures, the entrepreneur of venture two recognises the venture opportunity and chooses to take part in the development.

## 6 Concluding research questions

The intent of this section is to answer the research questions:

1. How do portfolio entrepreneurs acquire new business opportunities in a perspective of actions and interactions?
2. How do portfolio entrepreneurs approach these actions and interactions in a networking perspective?

### **Answering research question 1:**

*1. How do portfolio entrepreneurs acquire new business opportunities in a perspective of actions and interactions?*

What is interesting to note, is that two of the portfolio's entrepreneurs did not identify their business idea themselves in the idea's market structures but were provided this information from second and third-degree relations. Both entrepreneurs identified and acquired insights, that is subjectively deemed valuable to act on, when they were both in action and interactions, which cannot be described to have entrepreneurial intent. This is evident from the job interview of entrepreneur in venture one, and the spare time interactions which were the grounds for venture two. One can also note that both entrepreneurs had been previously engaged in either entrepreneurial thoughts and the entrepreneur of venture two had first hand entrepreneurial experience. Followingly, both entrepreneurs engaged in market related actions and interactions where they acquired additional information that further fuelled their opportunity development process. In total these entrepreneurs engage in a social processes of information exchanges, constituting the bottom line of how the entrepreneurs acquired their business opportunities.

An interesting pattern emerge when viewing the mentioned engineer's processes, in the light of the entrepreneur of venture three. This engineer identified a problem in its market structure directly and had not approached any market related interactions for information acquirement, before he

met the entrepreneur of venture two. One can then speculate about the potential fuel in information exchanges with market actors, that value Dimov's perspective on opportunity development as a creative and social process.

**Answering research question 2:**

*2. How do portfolio entrepreneurs approach these actions and interactions in a networking perspective?*

What these entrepreneurs have in common is that the grounds of actions and interactions, that one can argue to "set the wheels" in motion for the ventures, are interactions with other individuals. In these interactions, the analysis section shows that networking plays a crucial role for acquiring momentum for resource acquirement. Two of the entrepreneurs first identified the business ideas through several layers of unconscious or conscious networking strategies, which again opened for the phenomenon of serendipity to happen. What is interesting to notice in this perspective, is that there can be drawn a difference between the actions and interactions that involve the initial identification of the ventures new business idea, and those actions and interactions that evolved around identification of a potential portfolio formation. The last mentioned here can be drawn a line of the important networking strategies of intelligent altruism, causational networking and strong existing relations. Whereas on the initial opportunity identification of business idea and its inherent problem, where networking strategies in regards of open-endedness, homophily and relational positive social vibes.

## 7 References

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