

# Does the effectuation theory apply to expert entrepreneurs in a different setting? What drives the decisions of expert entrepreneurs?

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## ABSTRACT

*The goal of this paper is to investigate whether the effectuation theory applies to expert entrepreneurs in a different setting. Does the effectuation theory apply to all entrepreneurs that have experience and to entrepreneurs that founded more businesses or are other factors more of influence? Interviews were conducted with entrepreneurs who have more than 2 years of entrepreneurial experience. These interviews tried to investigate whether they were more intended to make use of their own resources (effectuation) or that they used a planned approach (causation). Defining an expert entrepreneur can be hard since their business they operate in can be of influence. Some entrepreneurs face highly uncertain unidentified markets where they must make decisions about an unknown future. Other entrepreneurs face a more routine business environment with well-known markets with less strategic decision making. The results showed that entrepreneurs are more intended to an effectual way of decision making, however the answers also indicated that it was a combination of the two theories and that every situation is different for each entrepreneur.*

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## Keywords

Effectuation, causation, uncertainty avoidance, decision making processes, entrepreneurship.

# 1. INTRODUCTION

What is entrepreneurship? Entrepreneurship is difficult to define, and reviews of available literature shows that there is no generic definition. Over the past years scholars from different backgrounds tried to conceptualize the term entrepreneurship. Entrepreneurs are the actors that are responsible for the success or failure of a business. A lot of research has been done in the past decade with researchers trying to investigate how entrepreneurs started their venture and how they make their first decisions (Davidsson, 2015; Shane & Venkataraman, 2000). The research of entrepreneurial experience rose significantly in the past years. When entrepreneurs first founded their venture, they coped with a lot of challenges that affected their firm's performance. One of the main problems that is being faced when starting a new venture is uncertainty. "Uncertainty is one of the main aspects addressed in the study of entrepreneurs' behavior" (Alvarez & Barney, 2005). "Entrepreneurs face the challenge of determining the right approach to achieve their goals and aspirations" (Brinckmann, Grichnik, & Kapsa, 2010). They must often make decisions about residual claims before the economic value of an associated market is known in advance. (Alvarez & Barney, 2005). Although there is a lot of uncertainty involved in the entrepreneurial decision-making process. This uncertainty did not stop potential entrepreneurs from trying to venture a firm. There has been an upward trend in the past ten years in the Netherlands. Despite the Covid-19 pandemic, which has been characterized by a lot of uncertainty due to the lockdowns, the total amount of companies rose with 8,5% in 2022 (CBS 2022) and the Netherlands passed the two million companies' milestone. However, there was a lack of confidence during the lockdown, the lockdown caused a low consumer and producer confidence in the Netherlands. The investments were also below the trend level during the lockdowns (CBS 2022).

There is an upward trend in the total amount of companies even in times of a unprecedentedly worldwide crises that affected every sector. What is the driver for this growth and how do entrepreneurs start with the decision-making process? There must be an explanation for this enormous growth in entrepreneurship. What makes potential entrepreneurs step into the world of the unknown faced with uncertainties and risks? Entrepreneurs could engage in extensive business planning, or they could just storm the castle by gathering resources together (Brinckmann et al., 2010). One theory that could explain the decision making is the effectuation theory from Sarasvathy (2001). Sarasvathy (2001) identifies two entrepreneurial behaviors for the dynamic strategic decision making of entrepreneurs: causation and effectuation. Causation is characterized with planned strategy approaches and tend to be a more responsive approach. Causation theory has been characterized by selecting a pre-determined goal, the entrepreneur must choose between means that he/she either needs to obtain or can select in order to achieve those goals. The key differences between the effectuation and causation theory will now be outlined with a short description. The literature section will further elaborate on these principles. (1) focus on short term business opportunities in an unpredictable future (effectuation) vs predicting of an uncertain future by predetermining the goal beforehand (causation). (2) a focus on what the entrepreneur is willing to lose (effectuation) vs a focus on the expected returns (causation). (3) emphasis on pre-commitments and strategic alliances to control an unpredictable future (effectuation) vs business planning and competitor analysis to predict the future (causation). (4) exploitation of environmental contingencies (effectuation) vs exploitation of

pre-existing means (causation) (Chandler, DeTienne, McKelvie, & Mumford, 2011, p. 377; Sarasvathy, 2001).

Sarasvathy (2001) states that expert entrepreneurs are more intended to choose an effectual approach to their decision-making process. Dew, Read, Sarasvathy, and Wiltbank (2009) investigated expert entrepreneurs who already had success with multiple businesses and faced them with a new (hypothetical) business opportunity. The results of the study concluded that expert entrepreneurs are more intended to follow an effectual approach rather than a planned (causational) approach. This research will investigate the real business exploitation of expert entrepreneurs. What is an expert entrepreneur you could ask? Different scholars have used various definitions of expert entrepreneurs for several reasons. In section 2 the characteristics of experts in general will be discussed. Then the definition of expert entrepreneurs will be discussed according to different scholars. Lastly, the definition of an expert entrepreneur that this study is going to use will be given and elaborated.

This paper is structured as follows: the first section mainly contains literature relating to effectuation and the causation theory. It will explain how this literature started and what this literature implies for several types of entrepreneurs. There are five principles of effectuation theory that each will be discussed. The methodology section contains information about how this research is conducted. This section is followed by the results. Then there will be an elaborated discussion on the results with different implications for these results.

## 1.1 Research gap

Many researchers tried to identify the effects of causation and effectuation. Grégoire and Cherchem (2020) "encourage the development of new means of observations for more directly capturing the concrete manifestations that denote an effectual mode of action." Sarasvathy (2001) focuses on the difference between novice and expert entrepreneurs. However, some scholars have noted deficiencies on which effectuation theory is based, for example: Fischer and Reuber (2011) says that prior effectuation research has focused on entrepreneurs engaging in hypothetical startup processes such as Dew et al. (2009). Therefore, this study focuses on real-life business venturing and the decision-making process of expert entrepreneurs. Arend, Sarooghi, and Burkemper (2015) argue that the chosen sample from Sarasvathy (2001) is not representative for real expert entrepreneurs. Arend et al. (2015) argues that the sample skewed more older, male, and more educated entrepreneurs. The sample that was investigated included more high-tech startups and are not representative to general expert entrepreneurs (Arend et al., 2015). In other words, Arend et al. (2015) argues that the sample is based on outliers. Chandler et al. (2011) promotes empirical research that focuses on causation and effectuation by developing sound measurements and by providing evidence that support the reliability and validity of the research.

With the arguments from Arend et al. (2015) and Fisher (2012) a research gap has been identified, namely: does the effectuation theory apply to expert entrepreneurs in a different setting? Furthermore, do the principles of effectuation apply to expert entrepreneurs with actual venture creation instead of hypothetical startups that were used in the original work of effectuation theory?

To test this theory this research is going to use a broader definition of expert entrepreneur to test to what extent 'expert' entrepreneurs really use their own means as stated in the effectuation theory.

## 1.2 Research question

This leads to the following research question:

*“To what extent are expert entrepreneurs in an adjusted setting still making use of effectuation versus causation in new venture creation?”*

With regards to this question, this research makes effort to create insights into decision making processes of expert Dutch entrepreneurs with solid argumentation including implications for the entrepreneurs. The discussion will elaborate further on possible explanations for entrepreneurial decision-making.

This research will be a contribution to the work of Sarasvathy (2001) and Dew et al. (2009). This research will further investigate and test the arguments to the effectuation theory from Arend et al. (2015) and Fisher (2012).

## 2. LITERATURE

### 2.1 Effectuation

The idea of effectuation started off with the literature of Sarasvathy (2001). Think aloud protocols were used to gather data from 27 expert and 37 novice entrepreneurs. The entrepreneurs were faced with a hypothetical business-opportunity and the entrepreneurs had to show how they would face this opportunity.

Sarasvathy (2001) identified two behaviors that cause the decision-making processes and venture creation of entrepreneurs. After the work of Sarasvathy (2001), many researchers further investigated the topic of entrepreneurial decision making (Chandler et al., 2011; Fisher, 2012; Grégoire & Cherchem, 2020; S. Read & S. Sarasvathy, 2005).

Read and Sarasvathy (2005) states that causal rationality is a goal driven approach. The opposite of the causation theory is effectuation and is a means driven approach. S. Read and S. Sarasvathy (2005) also proposes that effectuation inverts every aspect of causal rationality. Effectuation focuses on to what extent we can control the future, rather than to what extent we can predict the future for the causal rationality.

Sarasvathy (2001) gives an example of the difference between causation and effectuation. A chef is assigned to prepare a meal. The chef who would choose a causation approach would determine the dinner beforehand and would create a list of ingredients that he/she would need to cook the dinner. He/ she uses a predetermined goal while selecting the means to achieve the goal. Predetermining goals before starting something indicates a causational approach.

However, the chef who is asked to prepare dinner while using an effectuation approach would look to the available ingredients and utensils to prepare the dinner. He/she would search for available ingredients in the fridge, and he/she is going to make a meal that he/she already knows. The dinner in an effectual approach is thus dependent on the available means. Not only do the means depend on what is available in the fridge, but also the chefs' cognitive means.

Of one characteristic of effectuation that is stated in (Sarasvathy, 2001) is that the process of effectuation creates more or several possible effects that were not intended before the start. It allows the decision maker to change his or her goals by using contingencies that may arise over time. Furthermore, even the ambition to start a business is not a starting point of effectuation. Several business and companies were successful without the initial purpose of venturing a new firm.

## 2.2 Principles of effectuation

### 2.2.1 Bird-in-hand principle

The first principle of effectuation is the Bird-in-hand principle. This principle focuses on the means of an entrepreneur and asks several questions to determine the starting point for creating a new venture or exploiting a new idea. The means can be categorized in three categories: identity (who I am), knowledge (what I know) and networks (whom I know) (Sarasvathy et al., 2014). This forms the primary set of means that decision makers must identify to determine their objectives. This is in contrary to the causal logic of having pre-determined goals and then choosing between different means or trying to get access to other means to achieve those goals. Effectuation encourages entrepreneurs to anticipate to new opportunities while using their own means to anticipate on these opportunities.

### 2.2.2 Affordable loss vs expected return

Risk is an important factor for entrepreneurs when they face decision making. Entrepreneurs who follow an effectual approach to their decision-making process focus on the maximum amount they can lose/ are willing to lose when making decisions. They maximize the use of their own resources to avoid additional expenses. The use of partnerships is also a characteristic of the affordable loss principle because using partners allows entrepreneurs to limit their expenses. The opposite of the affordable loss principle is the expected return. The expected return focuses on what can be earned from a specific deal or contract and its origins lies in the causational rationality. The focus lies on the return in combination with the probability of it. One benefit of using the affordable loss principle is that an entrepreneur can easily calculate how much he/she is willing to lose (Sarasvathy et al., 2014). The effectual entrepreneur who uses the affordable loss principle focuses more on incremental steps of a project or new business venture.

### 2.2.3 Crazy quilt principle

An entrepreneur who uses effectual decision making is intended to make use of its own means to start a business. These means can vary from different perspectives. An entrepreneur may form partnerships and coalitions to expand resources. They can for example collaborate with other companies to expand their services (Sarasvathy et al., 2014). This may bring new directions to the company and sometimes partnerships can lead to a joint venture.

The opposite of this principle focuses on planning and selecting stakeholders on a predetermined goal. Entrepreneurs following an effectual approach are more intended to contact people they already know where their new business can benefit from.

### 2.2.4 Lemonade principle

This principle is derived from a saying: “If you have a lemon, make a lemonade.” What is meant with this saying is that you should use the resources you have easily access to and exploit these resources to a new product or service.

Sarasvathy (2001) states that entrepreneurs who adopt an effectual approach embrace the unknown, instead of using scenario approaches to ask questions such as “what if”. Entrepreneurs who use an effectual approach view unmet needs in the markets as opportunities to create new products or services.

### 2.2.5 Pilot in the plane

This principle was later added to the effectuation theory. This research may also be considered a non-predictive control as an overarching logic which was covered in the 4 other dimensions above. This dimension emphasizes the role of

human beings rather than trends in determining the outcome. Effectual entrepreneurs who face a highly certain environment are more likely to transform and reshape the environment rather than updating their probability estimates what a causational entrepreneur would do.

## 2.3 Causation

Sarasvathy (2001) defines that in new venture creation involving a causation approach, the objectives of the venture are clearly defined with a systematically search for an opportunity in an existing market.

Causation models often include planned models that involves recognizing an existing market and its competitors. Two studies that propose a planned approach that are often elaborated in management studies (Wiltbank, Dew, Read, & Sarasvathy, 2006) are the Ansoff matrix (Ansoff, 1957) and the five forces model from Porter, both the five forces model and the Ansoff matrix are tools that can be used by firms which include systematical analysis and integrative planning (Wiltbank et al., 2006).

The rational planning view predicts that as uncertainty increases, organizations that work more diligently to analyze and predict more accurately the changing situation in which they operate will outperform those that do not (Wiltbank et al., 2006). Casson and Wadeson (2007) gives a critic point against the causation theory, Casson and Wadeson (2007) states that the easiest recognizable opportunities are likely to be discovered first, however the costs of each additional discovery increases as more potential entrepreneurs search for these opportunities. Moreover, Casson and Wadeson (2007) defines that there is a misunderstanding for the reason why existing opportunities have not been discovered yet, they state that this misunderstanding arrives because the costs of the discovery have been ignored.

## 2.4 Novices' vs expert entrepreneurs

Sarasvathy (2001) states that expert entrepreneurs are more intended to use an effectual way of thinking compared to that of novice entrepreneurs. According to Sarasvathy (2001) novice entrepreneurs are more intended to focus on the goals and search for means to achieve the goals.

What is the definition of an expert and novice entrepreneur according to previous literature? We start with giving a definition of a novice entrepreneur that was used in the sample from Sarasvathy (2001) on which the modern effectuation theory is based. Then an expert entrepreneur will be defined followed by the definition from Sarasvathy (2001). Lastly, the definition that this research is going to use will be given with an explanation why it is deviating from the original literature.

According to Dew et al. (2009), a novice entrepreneur is considered as a person who has enough experience in basic business knowledge to understand the problems, they had to face during the researching phase. All the 37 novices that were interviewed were trained in causal thinking in MBA school and had now different jobs in managerial roles on different departments in large and complex organizations.

### 2.4.1 Expert entrepreneur

There are a lot of differences between novice and experts in every possible field you can imagine.

What makes an expert an expert? According to Foley and Hart (1992), in engineering, an expert is considered as an individual who has attained a high level of performance in the domain, as a results of years of experience. Giving an example from other domains: an expert athlete, chess master, nurse or medical

doctor is expected to perform its task at virtually all time with little preparation (Ericsson, 2008).

The definition that was used for the foundation of the effectuation theory in Sarasvathy (2001) her work was as follows, an expert entrepreneur is a person who founded on his own or in a team one or more companies, remained with one company for over ten years, and then taken it public (Dew et al., 2009). Normally public taken companies are of a great size and cannot be easily accessed to compared to other companies. Therefore, a different definition of expert entrepreneur will be used in this research.

This study wants to research expert entrepreneurs using a broader definition of expert entrepreneurs. In this way this research maximizes its effort to explore to what extent the effectuation principles apply to entrepreneurs that are more accessible and more recognizable to every person.

In this study, we will refer to Mitchell (1996, p. p. 54) to define an expert entrepreneur. Mitchell (1996) defines an expert entrepreneur as someone who "had either started a business which had been in existence over two years, or started three or more businesses, at least one of which was a profitable, ongoing entity." The methodology section includes more information about the chosen sample. We deviate from the definition which was used by Sarasvathy (2001).

## 3. METHODOLOGY

### 3.1.1 Sample

The final interviewed sample consisted of 5 entrepreneurs in various businesses. The businesses were operating in various industries.

The first entrepreneur (53 years) is involved in business consultancy. The entrepreneur is involved in cost-price calculations and prediction of future turnover. The second entrepreneur (23 years) is owner of an e-commerce business and is a reseller of products. The third entrepreneur (48 years) sells fresh products, namely flowers. This entrepreneur restocks multiple times per week to resell these flowers to other clients. The fourth entrepreneur (49 years) is involved in Artificial intelligence consultancy and sells software to their customers. The last entrepreneur, entrepreneur 5 (55 years) founded multiple companies. The most profitable company was involved in global internet solutions and the entrepreneur faced highly uncertain environments.

All the interviewed entrepreneurs were males. The education levels vary between university level education to high school education.

### 3.1.2 Method

This study uses qualitative analysis to investigate the undertaken decisions from entrepreneurs.

The entrepreneurs were asked 11 questions about the start of their company and about the decisions they made back then and the decisions they are faced with in their day-to-day decision making. The questions are developed in a dichotomous way, they contain two theories which were discussed in the literature review section. The questions are designed in so that the answers can be viewed as either effectual or causational reasoning or a combination from the two. It may also be possible that neither of the two theories are being followed.

I have got in contact with different entrepreneurs through several ways. I met three entrepreneurs with the help of my family / friends. I met the last two entrepreneurs through a socializing drink. The interviews were recorded, and the

interviewees were informed that their data will be published objectively without company name.

There are 11 interview questions, they are structured with the 4 dimensions of the effectuation theory. The first question is a stand-alone question that will have multiple, (not stated in the Appendix sub-questions) asking for basic information about the entrepreneur such as the age and origin from the entrepreneur, and more important about the start of the company. The entrepreneur will not be told about the dimensions beforehand to avoid creating bias. Informing the interviewees beforehand could lead to other answers and unintentionally framing answers in a way that the entrepreneur thinks someone should make decisions. The following dimensions are all derived from the effectuation principles and will be discussed below:

The first category of question (question 2 and 3) are about the **Means vs Goals dimension** from Sarasvathy (2001). These two questions ask for the initial goal of the company and the initial usages of their resources.

The second category of questions covers the **Affordable loss vs Expected return** dimension (Sarasvathy, 2001). This category consists of two questions and the first question is about the entrepreneur's strategy on the entrepreneurs view about maximum loss vs maximum possible return.

The third category are questions about **Preference for partnership vs Competitive market analysis**. The first question is about business planning, asking whether the entrepreneur has a detailed plan about the future. The second question in this category is whether the entrepreneur approached potential customers before the company existed.

The fourth and last category is about **Preference for acknowledge vs Overcome the unexpected**, this dimension covers the future of the company as well as the question whether the company was founded as a gap in the market or not.

### 3.2 Analysis

The reason why interviews are chosen is that you can have a deeper conversation about sensitive subjects such as financial losses and damage on their personality.

According to McGrath, Palmgren, and Liljedahl (2019), qualitative interviews afford researchers to explore an in-depth manner that are unique to the experiences of the interviewees. This is also the case of entrepreneurs. Each entrepreneur makes different decisions that influence their success and future.

Appendix A contains a table containing information whether the entrepreneur answered in an effectual (E) or causational (C) way. Sometimes the question was not relevant for the entrepreneur, or the entrepreneur did not answer the question in a way that could lead to one of the two answers. For the questions that could not be considered as effectual or causational the character X will be used. The answers on the questions could lead back to one of the two theories. Studying the effectuation theory gave me a better understanding on how to sort of "code" the questions and lead it back to one of the theories. For example, asking about the **means vs goals** dimension, I was listening for words such as "my own knowledge or profession started...", this indicates an effectual way of thinking. An opposite phrase for example that indicates a causational way of thinking could be: "I planned to have a turnover of..." So, word such as "planning" or "our goal is to have this..." can then be coded as causational and words like "my own", "collaborating with partners" can be coded as effectual.

## 4. RESULTS

The results table can be found in the Appendix, here the question numbers are states on the x-axis and the y-axis contains the entrepreneur. During the interview there were some entrepreneurs who had clearly chosen for an effectual side for decision-making. Now, the entrepreneurs will be discussed. I will go through each entrepreneur and discuss the results and mention their business there are operating in as well as their age and educational level.

The first entrepreneur E#1 started the company in 2020. The business where the entrepreneur is operating in is Business consultancy. This varies from data management, cost consultancy, and power BI services. The entrepreneur is a male with the age of 53. The entrepreneur followed a Bachelor of Industrial Engineering Management at the University followed by two masters. The reason for E#1 to start his own company was to pursue the positive activities of his former job. The knowledge to start the consultancy company is connected to the past. In the past this entrepreneur worked for several companies in financial and director jobs. For the first dimension, **means vs goals**, the entrepreneur answered in a more effectual way. The own means were the starting point of the company, especially the Excel skills in combination with analytical thinking are a crucial part for this business. The entrepreneur believes that by forming partnerships with competitors you can both benefit from it. "Instead of taking a slice of the pizza you can all make an effort to make the pizza bigger". He advocates working together so that you can create a bigger market where both parties can benefit from.

The second entrepreneur E#2 is 23 years old and has an e-commerce company. The entrepreneur started his company in an effectual way by analyzing the market prices and offering lower prices instead. The education he followed did not contribute to his entrepreneurial career. However, his internship was very important because in this period he identified a gap in the market in which he now operates. The father of E#2 is also an entrepreneur and he helped him by creating routine for the employees and for himself.

Asking whether he thinks that the market is predictable of not he gives the following answer: *"People are so unpredictable, one day you can sell 100 of the same products and a few days later this you are stuck with the inventory"*. The questions on the **preference for partnerships vs competitor analysis** gives an interesting answer. Competitive advantage in this company is gained by a lower price than its competitors, therefore competitors are constantly monitored by their pricing. Furthermore, not only the price of the competitor is monitored, also the price quality ratio is a critical point for this e-commerce company. Asking questions about business planning gives interesting answers, on the question whether the entrepreneur is actively involved in business planning gives the answer that: "Business planning is not used to plan the future, it's used to expand our business because it's growing at a huge pace."

**Q7 (cost reduction vs maximum gains)**. The entrepreneur is and was not afraid of takings risks, the beginning of the enterprise was when he was still living at his parents' house, so the risks were minimized. Now that the entrepreneur has capital goods, the risks are increased, asking the entrepreneur if he is afraid of taking new challenges gives the following quote in which he believes:

*"You have to take risks to earn some money, it's the same with the crypto market, entrepreneurship without taking risk is no entrepreneurship"*

The third company consists of a family-owned company with multiple entrepreneurs E#3. The founder of the company had an age of 70+ and the two who carry out the most activities nowadays are about 50 years old. The company distributes flowers and plants to smaller companies. The company sometimes buys new products. Sometimes they follow trends of other parts in the country. *“Normally our region lags behind the other part in taste so we can sort of “predict” a future product that we expect that will be popular.”* This quote can lead back to opportunity recognition. The founder of the company saw a gap in the market because he had to bring flowers in the second part of the past century to the other part of the country. While doing this he recognized a gap in the market and saw the chance to conduct his own business in this part of the country. This is an effectual way of thinking since he used his own means to continue the business, he was in.

On Q4 and Q5 (**Affordable loss vs Expected return**) the entrepreneur says that they know what normally sells to their customers, this product can be seen as a routine product. They always look at what they can earn for this part because they know it will sell since it is their primary product. Sometimes they buy products that are not part of their main products, when they do this, they look at the maximum loss because they cannot predict whether these flowers will sell or not, these products are considered as “niche” products according to the entrepreneur.

Entrepreneur E#4 is involved in data analytics and consultancy of AIoT infrastructures, this company is considered as a tech company. The entrepreneur is 49 years old and originally lived in Great Britain. He followed multiple studies and got a PhD in Data science and AI algorithms. Ultimately E#4 moved house to the Netherlands. In Great Britain he was involved in jobs involved with data science. Q1 and Q2 gives an effectual answer. He received freelance projects from his former work from Great Britain and in this way, he got in contact with other potential clients. Entrepreneur E#4 thinks that the tech industries are missing so much potential by not collaborating. *“They are fighting like warriors”*. Instead of working against each other, he advocates collaborating with each other, that would be more fun, and the work would ultimately be better. For the dimension **affordable loss vs expected return**, E#4 indicates that he would never take a project that he was not able to amortize in case of default. Furthermore, he says that he always seeks the middle way in potential gains vs the maximum amount he is willing to risk for a specific project. On Q8 the entrepreneur gives an interesting answer. Asking whether he exploited a gap in the market he indicates that he has a scarce and valuable skill. There is demand for skills to work with mathematics and programming.

Entrepreneur E#5 is 55 years old and followed university education. E#5 is an entrepreneur who founded multiple successful businesses. The first two businesses were involved in global internet solutions for multinationals. After selling these companies the entrepreneur ventured a business following another hobby and passion and is now organizing sailing trips around the world. The entrepreneur had the intention to start a company before he recognized an opportunity to act on. On Q8 the entrepreneur answered that he did not see a gap in the market, he rather defines the starting point as an opportunity. For the **affordable loss vs expected return dimension**, the entrepreneur said that he did not use an external funding. From his point of view, he thinks that there are downsides on using external fundings. The first downside is that sometimes you must sell a part of your company to guarantee that the money will be returned. The second reason is that E#5 thinks that you are more careful with your own

money. For the prediction of the future dimension, E#5 says that he was constantly looking for new trends and reacting on these trends.

#### 4.1.1 Other interesting findings

E#4 origins lays in Great Britain, when he moved to the Netherlands, he learned the Dutch language. He says that you are not taken seriously and that it is very hard to conduct business if you do not speak the language fluently. E#4 also says that it is very easy to start a business in the Netherlands and that the bank system works very well. You go to the bank, and you instantly can open a bank account. This is harder in other countries. Starting a business is also easy because you go to the chamber of commerce, and you instantly register your company.

Another interesting finding what entrepreneurs 4 and 5 mentioned is that multinational companies take a long period for paying their invoices. Both entrepreneurs mentioned that this sometimes-caused problems in their cash flow. Another interesting finding is that both entrepreneurs 4 and 5 have an aversion against external funding. They both say that they were/are not willing to give away a part of their company in exchange for a funding.

## 4.2 Summary of findings

After conducting five interviews on five totally different entrepreneurs all having different businesses gives us interesting findings. For the first dimension **means vs goals**, all the entrepreneurs answered in a more effectual way. Despite some entrepreneurs set some incremental goals beforehand, most entrepreneurs relied on their own means. The second-dimension **affordable loss vs expected return**, we received some mixed answers from entrepreneurs. 4/5 entrepreneurs indicate that both dimensions are important but that they would never accept a project that they could not afford to lose. All entrepreneurs indicate that they do not want to expose themselves too much to risks. Some entrepreneurs tend to have a combination between receiving money and accepting new projects which can be seen as a combination between the two theories. The third-dimension **preference of partnerships or competitive market analysis** the entrepreneurs tended more towards an effectual way of thinking with sometimes a combination of scanning competitor prices and behavior. Some entrepreneurs also were collaborating with competitors to create bigger markets. For some entrepreneurs, this question was difficult because some see their collaborations with other companies more as a natural phenomenon rather than a planned collaboration. The last dimension **preference for acknowledge vs overcome the unexpected**, the effectual way of thinking was more dominant. There were some entrepreneurs who did not define their starting as a “gap in the market” but rather an unmet need gap in an existing market.

## 5. CONCLUSIONS

Going back to the original research question:

*“To what extent are expert entrepreneurs in an adjusted setting still making use of effectuation versus causation in new venture creation?”*

The effectuation literature shows that expert entrepreneurs are more intended to make use their own networks and resources and that they want to limit their risk. Causation tends more towards a planned approach and calculating maximum gains. This research investigated different entrepreneurs who had

more than 2 years' experience in their business. The entrepreneurs were more intended to use an effectual way of thinking when starting their business and making new decisions. I conclude that the effectual way of thinking is dominant for this researched sample. All the entrepreneurs leaned more towards an effectual way of thinking and some entrepreneur had a combination of causal and effectual behavior.

## 6. DISCUSSION

In this study, we researched how entrepreneurs started their business and how they face challenges and business decisions on a day-to-day basis. Through interviews this research has gathered data and come to the results that expert entrepreneurs are more intended to use an effectual way of thinking rather than a causal way of thinking. According to Ericsson (2008) it's impossible to know if a singular action was due to unique circumstances or that it is due to stable actions that were taken to handle situations. The same applies to entrepreneurs, did some entrepreneurs have luck with a decision or was it because of their expertise. Some questions were not relevant for some entrepreneurs because the situation they faced was a unique phenomenon. Measuring scenarios that only contain a few possible outcomes is easier to evaluate than scenarios that can have hundreds of outcomes that all cannot be considered beforehand.

There are several reasons why each entrepreneur faces different decisions. This discussion will cover different aspects what may cause entrepreneurial behavior. This discussion will further elaborate the research gap that was identified in the introduction part. The research gap was inspired by the critic of Arend et al. (2015). The research gap questions whether the effectuation theory apply at all to entrepreneurs or are other factors of more influence? It is important to seek for possible explanations for this research gap to understand the implications of the effectuation theory and whether it does exist on expert entrepreneurs. However, there are answers from the entrepreneurs that indicate that neither one of the two theories are directly being followed. Most of the times it is a combination of different factors that can lead back to the two theories that were discussed in this research. Another research that support the combination of the theories is Reymen (2015). Reymen (2015) indicates that one of the two logics may predominate at one time but that this subjects to shifts during the venture creation. The same phenomenon was identified during this research.

Based on this research, the expertise variable is not the only factor that influences entrepreneurial decision making. Other factors such as the nature of a company and the environment where a business operates in has a lot of influence for the direction of a company. For example, E#3 is involved in fresh product sales. The flowers from the company have a limited shelf life so planning on the long term and buying bulk for a low price is not possible. Another author that supports this finding is Fisher (2012), he argues that the effectuation theory only is justified by one variable: expertise. The nature of a business is also important for E#1, E#1 is the owner of a one-person consultancy firm. As E#1 stated, "The only asset I needed was my laptop which I was allowed to take from my previous job".

### 6.1.1 Starting point of the company

Some entrepreneurs started their company from their profession. They possess a skill that is highly valued which they achieved by working decades for other companies. Their skill was their starting point and the driver for success and not the entrepreneurial expertise that is stated in effectuation theory.

Despite that these entrepreneurs were more intended to use an effectual way of thinking, does that mean that they are more intended to use an effectual way of thinking because of their entrepreneurial experience? The entrepreneurs E#1 and E#4 say that it is because of their highly valued skill that they offer to companies they had already contact with.

Arend et al. (2015) questions the researched sample from Sarasvathy (2001). Arend et al. (2015) argues that the sample that was investigated skewed older, more male, and more educated entrepreneurs which may call into question what the driver of success was for these entrepreneurs. For this research, 3 out of 5 interviewees fit the same characteristics of this argument (more educated, man and older.) However, the entrepreneurs that did not fully satisfy these criteria were also more intended to an effectual way of thinking.

Arend et al. (2015) says that effectuation lacks a core part of what entrepreneurship traditionally has been defined: the creation of new value. Value creation can derive from innovations, new market needs, or unmet gaps within existing markets. Especially the unmet gap in existing market was an important driver for E#1 and E#3 which both used their own skills to fill in an unmet gap in an existing market. The effectuation theory simply assumes that new value is created.

Interesting answers that conflict with the dimension **preference for partnerships** from the effectuation theory led back to E#4 and E#5. They are against collaborating with external (funding) partners that have the potential to access more connections and enlarge someone's network. The collaborating may sometimes lead to a better access to capital. Both entrepreneurs state that it is now worth splitting a part of their company. Splitting a part of the stock may lead to other directions that may be conflicting with the direction the founder has in his mind. They both prefer being smaller with being their own boss than reporting and discussing with other partners that may have different visions they have. This statement disproves the effectuation theory dimension of forming partnerships. A limitation of the effectuation theory can be identified, namely forming partnerships may have negative impacts on the decision-making process of the business founder (Sarasvathy, 2001).

### 6.1.2 Other definition for expert entrepreneur

During the interviews, I sometimes felt uncomfortable asking specific questions about dimensions such as market investigation and the affordable loss principle. I tried to gather entrepreneurs that were involved in a more elaborate decision making. For example, I tried to avoid having entrepreneurs that have stores such as grocery markets and bakeries. In my opinion, these are entrepreneurs but, are they really the entrepreneurs that think about their future and act on the principles of effectuation? Some companies just conduct their business on a day-to-day basis without searching for new opportunities or analyzing competitors because they operate in a so-called routine business category. For example, E#3 is owner of a wholesale company who conducts their business and does not actively scan the market actively for opportunities. The definition that was used in this research was derived from Mitchell (1996). However, investigating businesses that involve more innovative business with a broader field of challenges may need a different definition. Especially for the effectuation theory that assumes a total uncertain and unpredictable market (Sarasvathy, 2001). What may not be the case for businesses such as bakeries and grocery stores. (The Covid-19 pandemic showed us an uncertain environment for some "routine" businesses but under normal circumstances a lot of businesses can be considered as routine.) A definition that includes more innovative entrepreneurs may be better suitable



to include entrepreneurs that are involved in more strategic decision making that influence the direction of their company and have a significant impact on the future rather than entrepreneurs who make incremental decisions. A definition that can be used for these two types of entrepreneurs can be derived from Leibenstein (1968). “*By routine entrepreneurship we mean the activities involved in coordinating and carrying on a well-established, going concern in which the parts of the production function in use (and likely alternatives to current use) are well known and which operates in well-established and clearly defined markets.*” (Leibenstein, 1968, p. 73). By a new type of entrepreneurship, the entrepreneurs that include more innovative entrepreneurs Leibenstein (1968) gives the following definition: “*... we mean the activities necessary to create or carry on an enterprise where not all the markets are well established or clearly defined and/or in which the relevant parts of the production function are not completely known*” (Leibenstein, 1968, p. 73).

### 6.1.3 Academic implications

This paper is important to encourage other researchers to investigate new settings in which entrepreneurs must make decisions. This paper provides a different setting to test the effectuation theory. Other research that was conducted by Sarasvathy (2001) tested the effectuation theory on expert entrepreneurs. The researched sample has been criticized by some scholars, for example Arend et al. (2015), this research made efforts to research other entrepreneurs (different then only high tech entrepreneurs) by using a broader definition of expert entrepreneur to investigate whether the experience had influence on entrepreneurial decision-making. This study contributes because it does not only reflect on the effectuation theory, but it also tested the effectuation principles on expert entrepreneurs with actual business venturing.

### 6.1.4 Practical implications

For entrepreneurs that want to start their own business. This paper may reflect their choices on collaborating with other businesses and their perception on risks. Some entrepreneurs may be intended to make more use of their own resources according to the quotes that were given in the result section. Some entrepreneurs may now view business planning as a different subject because of the answers of the results. It may also be the case that some entrepreneurs operate in the same field as the entrepreneurs that were discussed in this thesis, this may lead to different views on subjects such as the affordable loss principle. Lastly, a highly valued skill was the starting point for two companies that were interviewed. Other potential entrepreneurs that possess a highly (unique) valued skill may be inclined to start their own business to exploit an unmet need in a market.

### 6.1.5 Future research

Future research with regards to the effectuation theory may investigate entrepreneurs using the definitions from Leibenstein (1968) or Mitchell (1996) that were both discussed in this research. Future research may also look into new measurement criteria for the two definitions of Leibenstein (1968) or for the effectuation theory as a whole. Lastly, future research may also investigate different countries and how the principles of effectuation may or may not apply to entrepreneurs of a specific country.

## 7. LIMITATIONS

There are some limitations to this study, these limitations are due to the short time frame in which this research was done. The interviews that were conducted are very time consuming and therefore not more than 5 interviews could be conducted.

Furthermore, the original effectuation theory was researched in the United States, due to a lack of resources and time it was not possible to investigate entrepreneurs in the United States. Furthermore, due to the limited time frame I had for this research, it was not possible to conduct research on the novice entrepreneurs and their new venture creation.

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## 10. APPENDIX

Interview questions Lars Groeneveld Bachelor Thesis

1. Could you briefly introduce yourself and tell me about how you started your company?

### Dimension 1: Means vs Goals

2. Were your own means (knowledge and capital) the starting point for your company or did you use other means? (loans, market research)
3. Was the initial goal of your company clear or was it more like “see where this is going to end”?

### Dimension 2: Affordable loss vs Expected return

4. Did you consider the maximum amount you were willing to lose, or did you focus on the maximum you could earn in the future?
5. Did you made efforts to maximize your costs and risks, or did you focus on the calculations of potential future turnover?

### Dimension 3: Preference of partnerships or competitive market analysis

6. To what extent did you do market research (competitor analysis) or did you collaborate with relations with customers and suppliers.
7. Did you focus on reducing costs by approaching potential customers or did you focus by analyzing the market?

### Dimension 4: preference for acknowledge vs overcome the unexpected

8. Was your goal to fill in a gap in the market or was it a product that you would have offered regardless.
9. To what extent are you trying to predict the future, or do you try to get as much control over it?
10. To what extent is business planning useful for the decision-making process?
11. To what extent is the market predictable?

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	TOTAL
E1	X	E	C	E	E	E	E	EC	E	EC	E	7E 3C
E2	X	E	X	EC	E	E	EC	E	E	E	E	9E 2C
E3	X	E	X	C	C	E	E	EC	E	X	E	6E 3C
E4	X	E	E	E	E	E	X	E	E	X	C	7E 1C
E5	X	E	E	E	EC	EC	EC	E	EC	C	E	8E 5C

	Dimension 1: Means vs Goals Q2 and Q3	Dimension 2: Affordable loss vs Expected return Q4 and Q5	Dimension 3: Preference of partnerships or competitive market analysis Q6 and Q7	Dimension 4: preference for acknowledge vs overcome the unexpected Q8 until Q11
Total Effectuation (E)	7E	8E	9E	16E
Total Causation (E)	1C	4C	4C	6C