



**ANALYSIS OF STARTUP STORIES THROUGH THE LENS OF THE
EXTERNAL ENABLER FRAMEWORK**

Lappeenranta–Lahti University of Technology LUT

Master's Programm in International Business and Entrepreneurship (MIBE)

Masters's thesis

2023

Bastian Grubmüller

Examiner(s): Professor D.Sc. Henri Hakala

Dr. Gregory Richard O'Shea

ABSTRACT

Lappeenranta–Lahti University of Technology LUT

LUT Business School

Business Administration

Grubmüller Bastian

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50 pages

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Keywords: Startup stories, External Enabler, New Venture Creation, Entrepreneurial Nexus.

Entrepreneurship is an important part of our economy as it is one of the driving factors of economic growth. Though research into how new businesses are created is not new, the beginnings of entrepreneurial research can be traced back to the 1970s with some suggesting it going back even further, the highly individualized nature of the topic makes it difficult to understand. The creation of the external enabler framework was an attempt to create a theoretical foundation for further research into the outside influences on new venture creation, which could offer the opportunity to influence and support new venture creation in ways previously not done, ideally resulting in more entrepreneurial activity. For this thesis, 119 startup stories were collected from the websites of mostly Finnish startups to do a qualitative analysis of them through the lens of the external enabler framework. The intent was to find out indications to what enablers were influencing the new venture creation process of the companies. The results are that new technologies and socio-cultural factors were mentioned regularly, especially sustainability was referred to often, followed by education centers. Other enablers such as funding and community events were found, but not with the same frequency. There were no mentions of political or regulatory forces. Multiple enablers mentioned by one startup was commonly found, but the implications of this are unclear and further research about this topic is needed. These results indicate that sustainability, other socio-cultural factors, and new technologies had the most influence on the new ventures analyzed. Education centers also had a significant role, they have the capability to develop new technologies and are probably the easiest factor to influence via governmental means, which makes them a good starting point for intervention.

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1 Introduction

1.1 Background

Entrepreneurship is a phenomenon that is often described as one of the driving forces of innovation in our economy and for that reason it is important to understand the conditions in which entrepreneurship can flourish. Most entrepreneurial research is mainly focused on the attributes of the entrepreneur. This can take the form of seeking knowledge about successful entrepreneurial attributes, how good business ideas come into existence and how these ideas are turned into reality. (Davidsson et. al, 2001) Knowing that these parameters are not easily manipulated by regulating forces like governments and recognizing, that the individual is not the only piece of the puzzle to understanding new venture creation, the theory of the entrepreneurial nexus was developed, which introduced the concept of entrepreneurial opportunity. This concept was not well defined and therefore not really suitable for empirical research, so Davidsson and his team developed it further into the external enabler framework. (Davidsson, 2015, Davidsson & Grünhagen, 2020; McMullen & Dimov, 2013) The reframing of opportunity brought a new perspective into entrepreneurial activity, through which new venture creation can be researched and analyzed. This offers the opportunity to understand entrepreneurial activity better which could be one factor for future entrepreneurs in their decision-making process to start a business or the gained knowledge could be used to make new venture creation more attractive. The literature describes the emergence and attributes of these outside forces including the mechanisms with which they influence the creation and development of businesses, but most of the research concentrates on one single enabler and the effects it can have. (Davidsson et. al, 2020) This thesis shows, that it is possible for multiple enablers to influence a young business simultaneously, but the theoretical basis for this is yet to be developed.

Startup stories are, next to the pitch and similar tools, one of the most important communication instruments at the disposal of modern entrepreneurs. The biggest advantage of the startup story is that it is available for everyone interested in the business and therefore is a great opportunity to reach future stakeholders, vendors and customers. (Keyser, 2013) In short, these short texts on the company website tell a compact version of their creation

history. The idea of this study is, to collect a significant number of these startup stories and analyse them through the lens of the external enabler framework to proof its validity and to find out, which enablers were influential enough that the entrepreneurs deemed them to be an important part of the company's creation story. To summarize, this study brings the well-known entrepreneurial concept of the startup story and the relatively new external enabler framework together.

1.2 Delimitations

The external enabler framework is relatively new and therefore research that connects the theory with praxis is rare. Therefore, the intent of this study is to provide the theory with a prove of concept of sorts, that content provided by startups can be analyzed through the lens of the framework and this analysis can provide empirically significant results. Startup stories seem to be the most logical place to find enablers mentioned. Because of this, the research question is the following.

“What external enablers are mentioned in startup stories?”

This study sets the limitation, that only startup stories published by the company themselves on their website are collected. It would have been also possible, to collect stories independently written by outsiders about the company in question, but this was excluded because it would add an intermediary which could possibly dilute the data for the purposes of this study by pointing out what seemed important to the intermediary rather than what was important to the entrepreneur or the entrepreneurial team. This thesis is an attempt to collect the impressions on the entrepreneurial process from people who went through it and to qualitatively analyze the data to learn more about how external enablers work. This knowledge can be particularly useful for entities like local governments, education centers or other institutions who want to improve the local economy.

2 Theoretical Environment

As basis for this research, the author will use the External Enabler (EE) Framework according to Davidsson et. al, 2020. The purpose of the following literature review is to present the current state of development of this theory in compressed form and to provide the following research with a theoretical basis. This is done by accumulating past research on the topic, extracting the knowledge and giving it context. The result will be a basis to better analyze and understand entrepreneurial responses to external changes.

External change has always shaped entrepreneurial action, but two recent changes are reminding us how vital it is for businesses and especially entrepreneurs to monitor enabling forces. One of them is the current Covid-19 pandemic, which has shown to be disastrous for some businesses (Bartik et al., 2020) and strong enabling for others across a variety of industries. (Donthu & Gustafsson, 2020) The other one is climate change, where especially certain parts of the energy sector, but also other industries receive enablement on a wide scale. (Hiatt & Carlos, 2019) The engine for most new solutions in these changes is many times the usage of new technologies, which in itself is already a widely recognized enabling force. (Berger et al., 2021; Nambisan, 2017)

2.1 New Venture Creation

To be able to explain the theoretical concepts this work relies on, the new venture creation process needs to be described. It is the foundation on which the external enabler framework is built on. Understanding and defining this process is complicated because of the long array of variables involved. A physics student opening a secondhand shop is a very different process from a team of IT experts creating a cyber security firm. Therefore, it is not possible, to describe the ‘typical’ new venture creation. What is possible though is the creation of a framework to organize the variables involved. For this, new venture creation needs to be defined, which can be done by the definition of the new organization developed by the Strategic Planning Institute (1978, p. 1-2):

“a new business venture launched as one of the following:

1. An independent entity
2. A new profit center within a company which has other established businesses
3. A joint venture which satisfies the following criteria:
 - a. Its founders must acquire expertise in products, process, marketing and/or technology.
 - b. Results are expected beyond the year in which the investments are made.
 - c. It is considered a new market entrant by its competitors
 - d. It is regarded as a new source of supply by its potential customers.”

This definition stood the test of time because it recognizes the multidimensionality of new venture creation. It emphasizes the importance of expertise for the actors, while acknowledging the creation as a process happening over time by integrating the larger than a year timeframe for yields. In addition, this definition already integrates the environment and that the new venture is forced to interact with it. (Gartner, 1985)

Following this definition, Gartner (1985) organized the variables involved in new venture creation into four dimensions. Though previously there were attempts to combine two of these dimensions to define the process, Gartner (1985) was the first to create a framework to involve all four dimensions of the new venture creation process. (cf. Danhoff, 1949; Cole, 1959; Dailey, 1971; Smith, 1967; Filley & Aldag, 1980; Vesper, 1979 & 1980; Cooper, 1979; Cooper & Dunkelberg's, 1981) These four dimensions are individual(s), environment, organization and process.

Building on this foundation, further research developed into looking at NVC as a process, starting with the nonexistence of a business and ending with the existence of one. (Baron & Markman, 2018; Shane, 2012; McMullen & Dimov, 2013; Vogel, 2017) This is in contrast to the aforementioned older views that looked at new venture creation more as an event that took place at a definitive point in time. There are three common ways how this process is entered. The first mode is when the individual decides to start a business and then does research about it, following by the decision what business it will be, how it will work and how it will be set in motion. The second way is that the individual finds a solution to a problem and commercializes it (Bhave, 1994) without considering other approaches to how

a business could be started. The third way is to discover an idea or opportunity without looking for it and it fits into the possibilities and capabilities of the individual (Shane, 2000).

The new venture creation process can be described as highly individual, which means content, length and progression can differ widely. (Arenius, Engel & Klyver, 2017) The same goes for the level of planning and rational that go into it. (Dimov, 2007)

2.2 The Entrepreneurial Nexus

Even though entrepreneurial research has seen massive developments, both qualitative and quantitative in the last decades, including some entrepreneurship journals receiving ratings comparable to other top scientific journals, there are still topics and certain phenomenon which are in need of explanation through theorization. (Aldrich, 2012; Davidsson, 2016a; Meyer et al., 2014, McMullen, 2019)

One of these topics is the details of the new venture creation process, despite its extensive research history since the 1980s. The reason why this topic has such value is, that the best way to explain entrepreneurship itself seems to be as a process of new venture creation. (Davidsson & Grünhagen, 2020; McMullen & Dimov, 2013) Understanding entrepreneurship as a process has the effect to be able to clarify what is happening during the venture creation, which can have a more significant impact on the end result than the starting point, the available resources at the starting point or the skillset of the entrepreneurial individual at the beginning of the entrepreneurial journey. Another advantage of this point of view is to be able to integrate the characteristics of the entrepreneurial artifact, which are as important as those of the individual to the outcome of the process. This means that the understanding and correct implementation of the what becomes as important as the who. (Davidsson, 2020) In simple words, a great entrepreneur can't make a bad idea work. A good entrepreneur has a chance of success with a good idea, if he or she understands the characteristic of it and knows how to use the specific advantages.

The phenomenon, that the same individual who starts several entrepreneurial ventures creates different outcomes with each try has resulted in various explanation attempts. One of the first ones to research this was Shane and Venkataraman's (2000) with their very

influential article about entrepreneurship as a field of research. Originally defined as “entrepreneurial opportunities”, the concept was further developed to include distinctions between “discovery” and “creation” of opportunities. Research branched out to the concept of “first person” and “third person” opportunities and to explore the source of opportunities, which in terms sparked theories about opportunity recognition. (Davidsson, 2015)

2.3 Opportunity Characteristics Model

Entrepreneurial action and in consequence new ventures play a vital part in generating and maintaining competitive advantage via innovation. This is especially critical in today’s global economy, where it is normal to compete with companies that operate from the other side of the globe. (Kaplan, 2008; Puranam, Singh, & Zoilo, 2006) When looking at serial entrepreneurs, their outcomes may vary drastically for each business venture. Because the individual was the same, there need to be something else influencing the outcome. This second factor is according to Shane and Venkataraman's (2000) the opportunity. Consequently, this entrepreneurial action roots from two factors, individuals who act as entrepreneurs and the opportunity they act upon. (Shane, 2003; Venkataraman, 1997) These two factors combined form the root of new economic activity, called the entrepreneurship nexus. (Shane & Venkataraman's, 2000) Reviewing entrepreneurial literature from around 2010, it seems the bulk of the research activity was still focused on the individual part of this nexus and how individuals can recognize and exploit opportunities when they arise. (cf. Gruber, MacMillan, & Thompson, 2010; Plambeck & Weber, 2009; Short, Ketchen, Shook, & Ireland, 2010) Gregoire & Sheperd recognized this circumstance and consequently concentrated their research on opportunity characteristics, their influence on the initiation of new ventures via forming an opportunity belief in the individual and on the how and why these characteristics work. (2012)

The concept of opportunity itself provided a problem for a long time though. It was not universally defined. This had the result, that some research defined them as set of objective external conditions, others as individual cognitions or as social constructs. Another difficulty was to define the timing when to name something an opportunity. The exact definition of opportunity might even vary within one article. This all had the effect, that at the time

Gregoire & Sheperd did their studies, there was very little solid knowledge about the opportunity nexus available. (Davidsson, 2015)

Referring to literature available at the time, Gregoire & Sheperd established, that models of opportunities they already have are used by individuals for identifying situations they could act upon. (2012, cf. Baron, 2006; Baron & Ensley, 2006; Cornelissen & Clarke, 2010) This means, that individuals recognize opportunities easier or faster, if they have already seen, heard about or experienced something similar. Additionally, a previously conducted study had the result, that entrepreneurs are using cognitive processes of structural alignment when trying to find a relationship between emerging technologies and existing market needs. (Gregoire, Barr, and Shepherd, 2010a) Although these studies included opportunities and therefore laid great groundwork for Gregoire & Sheperd (2012) and later Davidsson (2015), they still focused on the cognitive processes going on in recognizing opportunities and not on how specific characteristics of opportunities themselves can shapes the emergence of entrepreneurship or the opportunity recognition process. This changed with Gregoire & Sheperd in 2012, who tried to take the next step in understanding the opportunity nexus by studying the different characteristics of opportunity ideas and which relationship these characteristics have with the discovering of ideas. Their argument was that because previous studies used the concept of individual entrepreneurs using cognitive processes to discover opportunities, the characteristics of these opportunities were entangled with the characteristics of the individuals. Consequently, identifying the mental connections that influence opportunity discovery proves to be difficult. To achieve it, individual mental connections and characteristics of opportunities need to be untangled and studied separately. This issue also leads to the difficulty to identify using traditional entrepreneur focused theory, why some opportunities are easier to recognize than others. (2012)

Trying to solve the issue of focussing too much in the individual and therefore neglecting other factors that might be at work, a new opportunity identification model was developed, that concentrated on the different characteristics of opportunities and their effect on recognition, which is based on theories about the pursuit of strategic and entrepreneurial opportunities. (Dutton & Jackson, 1987; McMullen & Shepherd, 2006) To be more precise, two opportunity characteristics where identified that have a high likelihood of influencing the recognition process. Both characteristics are based on the model's identifying similarities and structural alignment from cognitive research. (cf. Gentner, 1989; Markman & Gentner,

1993) They occur, when during the testing or development of new technologies similar or relatable conditions are present as in a market. The chosen terms “structural” and “superficial” reflect the descent from mental models that are involved in human reasoning, where superficial describes the individual elements of an object or units of meaning and structural describes the relationships between different elements. When speaking of opportunity recognition for new technologies, superficial similarities emerge, when the basic elements of the technology in question and the basic elements of a market (e.g. context, materials, people etc.) are comparable. This makes the argument, that opportunity characteristics play an important role in the entrepreneurial opportunity nexus and are to be viewed like Individuals, none are the same and their individual characteristics are able to influence the forming of ex ante opportunity belief and therefore play a role in new venture creation. (Gregoire & Sheperd, 2012) On the other hand, opportunity itself is not universally defined and this opportunity characteristics theory cannot explain when and why individuals stop perusing an opportunity. In other words, it is not able to explain failure. Further, there is a lack of ‘construct clarity’. (Suddaby, 2010) This shortcoming leads according to Davidsson to the opportunity construct as a whole as not suitable to use as an explanation for entrepreneurial action. It has the effect, that the non-actor part of the entrepreneurial nexus needs to be defined differently. (2015)

2.4 The External Enabler Framework

This redefinition happened with the introduction of the External Enabler Framework. Researchers working with the opportunity model were frustrated about the little progress that was made due to the previously described shortcomings, mainly because “opportunity” is an elusive concept. That is not to say the field was stagnant, progress has been made for example researching the different types of opportunities (cf. Dahlqvist and Wiklund, 2011; Eckhardt and Shane, 2003; Sarasvathy et al., 2003), but many core issues, like the precise nature of their effect on the new venture creation process and which salient types exist, were still unclear. The goal of the External Enabler Framework was to provide a common ground for researchers to work into a similar direction, which in turn should answer the pending questions. The previous lack of commonly used definitions simply leads to the resulting research not fitting into the broader context. (Davidsson, 2015)

The foundation for the new framework was done by specifically defining three theoretical constructs. The first one is the external enabler for aggregate-level circumstances. These can be regulatory changes, environmental changes or any other emerging circumstance that influences the current business climate. These circumstances have the ability to influence new venture creation processes in several different areas and attempted by a variety of actors. External enablers do this by accommodating the creation of new ventures. This does not ensure success though, since success is dependent on a variety of other factors which are not the focus of this framework. It is also assumed, that while an external enabler is benefiting some businesses, it can but does not need to have a benefit for the economic as a whole. (Davidsson, 2015) A good example of this would be the energy and climate policy, where the European Green Deal will affect different countries, companies, and households unevenly. (Fredriksson & Zachmann, 2021) The second term is New Venture Ideas. It is defined as “imagined future ventures”, which means any idea of for example combining products or services, bringing existing products or services into new markets or any other new means of generating income for a company. The quality of the idea is not a factor, because it is evaluated on a subjective basis during this phase. The new venture idea is the basis the individual acts upon in the entrepreneurial nexus. The third term to be defined is Opportunity Confidence. It takes the supplementary but necessary role of counterbalancing the possible favorability of the other two terms. It refers to the perceived attractiveness of a specific change that takes the form of an external enablers. Opportunity confidence is very subjective, because it describes how the actor evaluates the enable and its possible benefits for the actor. While one actor might decide an enabler will be very beneficial for his future venture, another one might have much less confidence in the exact same circumstance. This confidence in the effects of the enabler builds the basis for entrepreneurial activity. (Davidsson, 2015)

2.4.1 Role of External Enablers in Venture Creation

As a consequence of the previously described theoretical shortcomings of the opportunity idea, the whole nexus concept was disregarded by some researchers, which lead to neglection in empirical research. Controversially, the same researchers agree on the notion that changes in the environment a company operates in have an impact on its success of pursuing its goals. (Alvarez and Barney, 2013; Davidsson, 2003; Dimov, 2011; Shane, 2012) This meant, that

the existence of this theory was detrimental to research progress, and it had to be replaced. This realization resulted in the theoretical definition of external enablers in an effort to bring clarity as basis for further theorization. They are defined as a single, distinct external circumstance, which by affecting certain factors that can influence company performance, are able to be a vital part in eliciting and/or enabling a variety of new venture creation attempts. These circumstances are a theoretical construct that exists with the assumption of a disequilibrium economy (Arend, 2014; Shane and Venkataraman, 2000). Aligning this concept with history, changes occur on a regular basis and certain individuals try to use these changes for their own betterment or for reaching a specific goal. Some of those actors succeed, others are not able to convert the occurring environmental changes into an advantage. It is essential to notice, that these circumstances do not affect different individuals in different situations the same way. External enablers can have positive effects for one individual and negative ones for another one. Take a lockdown for example. While restaurants suffer since they need to close and therefore loose income but still need to pay rent, online shops and streaming services for example clearly profit from the same circumstance. (Davidsson, Recker & Briel, 2021) As a consequence, these circumstances favor only certain ventures. This favorability is for each individual circumstance selective, subjective, interdependent and uncertain. Selective means, that certain factors such as space, time and application area play a role in selecting which venture/type of venture is favored. Subjective means, it is dependent on certain characteristics of the actors. In addition, it is possible that positive effects might be interdependent with other external conditions. This is likely the case with new technological advancements, where without regulatory change to make the application of the new technology legal and viable the technological advancement alone might be heavily restricted in its usefulness. (Navis and Glynn, 2010) In addition, the time span in which the enabling function is in effect is fundamentally uncertain, since future changes are unknown and external enablers are always active for a finite time. The reason for that is, that the actions of others and changes in the economic system will weaken or even abrogate the enabling effect. (Davidsson, 2015)

This theoretical concept has some alignment with Strategic Issues in management research (Barreto, 2012b; Gartner et al., 2008), but the difference is in the assumption of an already existing venture versus the new venture creation approach. The existence of the external enabler concept has the purpose of acknowledging external influences on the new venture creation process. While this is certainly one important factor which might be undervalued in

some prior research (see. e.g., Eckhardt and Shane, 2013; Shane, 2012), individual entrepreneurs might be in some cases an influence force on external enabler, which aligns with the theoretical constructs of the Creation View (e.g., Alvarez and Barney, 2007). This would for example be the case, if an individual uses his own invention to create a venture out of it. (Davidsson, 2015)

2.4.2 New Venture Idea

The new venture idea can be defined as “imagined future venture” (cf. Cornelissen and Clarke, 2010; Klein, 2008), which means they are imagined combinations of product/service offerings, potential markets or users and ways to realize them. This is a redefinition of “opportunity recognition”, “opportunity identification” or “discovery” theory, but without the favorability, because it is already built into the external enabler concept. On the other hand, the concept includes the ideas that can lead to the creation of corporate or social ventures. One restriction of this definition is that the intended end result of the idea cannot simply be an optimization of ongoing activity, but it needs to at least aim at introducing a new offering by the actor to the potential customers (cf. Shane and Venkataraman, 2000: 220). This implies at the same time, that the idea doesn’t need to be innovative or new (see Amason et al., 2006, on newness vs. novelty). The concept of new venture ideas is immaterial and cognitive in nature, which makes it impossible to completely separate it from the actor. It is possible however, that they reflect to some extent the actors understanding of the external enablers active in the environment. NVIs also can express one or more goals the actor might want to achieve and embody a possible way to achieve them. The idea needs to be very well articulated so that it can be shared to a team or successor to peruse, but it can be communicated for the purpose of promoting it to customers or investors more easily. Whiles the actor who has the idea is vital, it is possible for two different individuals to have for all intents and purposes the same idea separately from each other. On the other hand, one actor can exploit different ideas and have varying success as a result. These characteristics have the effect, that NVIs can be meaningfully conceptualized away from the actor (cf. Katz and Gartner, 1988; Shane, 2012) and attribute to the level of the new venture (Davidsson and Wiklund, 2001). Individuals perceive the favorability differently. One individual might decide the NVI is bad and therefore not to pursue it while another individual might evaluate it differently and try to realize it. Therefore, a positive result from evaluating the idea is

logically not necessary for recognition. This is the reason, why new venture ideas and opportunity confidence are separate concepts in the same framework. Describing the process these ideas go through, the NVI starts to exist as soon as it is consciously recognized and enters the operational stage as soon as the actor attempts to realize it. This will either result in a viable venture or in failure. The new venture idea is therefore the foundation of the new venture creation process. On the other hand, the development of ideas purely for personal problem solving are not new venture ideas, as long as the individual doesn't try to realize monetary gain from them. (Davidsson, 2015)

The basic concept of new venture idea is not new. Similar, although in important characteristics distinct, theories emerged under the names of "opportunity idea", "business concept" or "entrepreneurial idea" (e.g., Brush et al., 2001; Foo et al., 2005; Klofsten, 2005), but it is possible to criticize them of providing little conceptual elaboration.

2.4.3 Opportunity Confidence

To supplement the two previously described concepts, opportunity confidence needs to be included. It describes the outcome of the evaluation process individuals undergo when confronted with external enablers or a new venture idea. This outcome describes the perceived degree of possibility of this opportunity resulting in new economic activity. The basic concept was initially introduced by Dimov (2010) and mentioned in similar ways by a variety of literature. (Autio et al., 2013; Eckhardt and Shane, 2003; Grégoire et al., 2010b; Shepherd et al., 2007)

In essence, the concept of opportunity confidence defines favorability as subjective, meaning specific to one actor. This is due to differences in resource availability, knowledge, opportunity cost and self-judgment of capabilities between actors. (McMullen and Shepherd, 2006; Shane, 2000) As a result, opportunity confidence can be easily misleading and far off of the realistic success chance the new venture idea provides. Opportunity confidence is a concept which is based on the perception of an individual, but it is possible to convince other individuals to be as confident in an opportunity as the possible future entrepreneur is. This effect can be seen by individuals teaming up to pursue the creation of a new venture because members of the team got convinced of the opportunity confidence of the individual who had the new venture idea. (Dimov, 2007a; Foss and Klein, 2012; Gemmel et al., 2011)

Because of the subjective nature of opportunity confidence, there are two ways it can be lost. Either the individual loses confidence in the viability of his or her idea or the individual still believes in the viability of the idea, but not anymore in the personal ability to use the potential of the idea. A similar concept was explored by McMullen and Shepherd (2006) with their first- and third-person contrast. The subjective nature of the concept is also one reason, along with it being perceptual and on an individual level, why it roots in psychology. Another attribute of OC is that it is momentary in a time sense, because it evaluates the situation at a particular point in time for a specific time. As a consequence, the opportunity confidence for a particular object can vary over time, even the entrepreneurial chance itself does not change. Opportunity confidence depicts the individual's evaluation of the other two, previously described, concepts. The reason it is separated is to balance possible favorability's of the other concepts and to describe the differences in confidence of individual stakeholders. It also gives the possibility for the content and the evaluation to be variable over time. (Davidsson, 2015)

2.4.4 External enabler anatomy

External forces like new technologies, law or regulatory changes, societal or demographic trends and other changes to the environment such as economical or socio-cultural developments have been understood as one of the main sources of success for the entrepreneurial process. (Alvarez & Barney, 2013; Cornelissen & Clarke, 2010; Dimov, 2011; McMullen & Dimov, 2013; Shane, 2012) As such, for understanding this factor of new venture creation better, it was vital to create a theoretical framework that accurately describes the attributes of external enablers. Addressing external enablers as part of "entrepreneurial opportunities" (e.g., Grégoire, Barr, & Shepherd, 2010; Grégoire & Shepherd, 2012; Shane, 2000) does not fit the context of studying the influence of the concept on business development. What is needed for that purpose is to describe the characteristics of external enablers, to describe how these characteristics influence the success potential of new ventures and through which mechanisms they do that. Furthermore, external enablers need to be classified in their specific roles. (Davidsson, 2017)

Characteristics

Characteristics describes the basic nature of an external enabler. These basic attributes do not change throughout the new venture creation process or when viewed through the lens of different agents. However, their applicability to specific ventures might vary as well as their perception. The two characteristics likely to have the most theoretical impact are scope and onset. Along these attributes the potential of each enabler might vary along several dimensions. (Davidsson, 2017; Davidsson, 2020)

While sectoral scope describes which parts of the industry are potentially affected, spatial scope describes the effected geographical area. Other subdivisions of scope are for example temporal and socio-demographic. Temporal is describing the timeframe over which the enabler is active, and socio-demographic describes which part of the human population is potentially enabled due to specific circumstance. Depending on the specific enabler, this group might be selected due to age, their profession or even due to medical issues. (Davidsson, 2017; Davidsson, 2020)

Onset describes how enablers come into existence. This characteristic decides how an advantage can be extracted the best out of the situation. For example, is decides if there is a first mover advantage of if it is advantageous to act later. (Lieberman & Montgomery, 1998) The reason for that is, that some enablers develop slowly while others would qualify as “environmental jolts” (Sine & David, 2003), meaning they appear suddenly. But speed is just one dimension of onset, predictability of appearance can also vary. Enablers with slow appearance and high predictability are generally a lot easier to utilize than enablers which appear suddenly and unpredictably. It is necessary to be alert (Tang, Kacmar, & Busenitz, 2012), have knowledge (Shane, 2000) and to be lucky (Denrell et al., 2014) in respect to identifying the enabler timely to be able to utilize certain types of enablers within the timeframe given by the situation. (Davidsson, 2017; Davidsson, 2020)

Mechanisms

Mechanisms describe how enablers function, meaning by what means is new venture creation influenced. To enjoy this influence doesn't always require taking conscious action upon it. Consequently, it is possible to be unaware of the existence of an external enabler and still benefit from it. Additionally, the concept of mechanisms is on the contrary to characteristics a relational construct which has the role to connect the external elements to

the entrepreneurial agent, which draws similarities to the original entrepreneurial nexus theory. (Shane & Venkataraman, 2000; Davidsson, 2020)

Enablers are only able to provide certain mechanisms and not all ventures can use the same mechanisms. Therefore, it is dependent on both, the enabler and the venture, if the advantage can be provided or not. On the venture side the two biggest factors for this seem to be the nature and the goals of the particular venture. For example, an IT venture might not be directly profiting of new high end chip developments, if their goal is not to produce high end computers but to provide a cheaper and lower end computer. In this example the nature of the venture would be suitable to use the enabler of new technologies, but the goal is not. At the same time, even if a venture is suitable for a particular mechanism this will not work if the enabler is not capable of providing it. When mechanisms work in conjunction with the venture, they can provide an advantage at various stage of the creation process. It is also possible that they work together with other mechanism to introduce secondary effects. At the same time, mechanisms increase the likelihood of an effect on the venture but are alone not enough to make the effect happen (Hedström & Ylikoski, 2010).

None of the mechanisms proposed by Davidsson (2020) are unique ideas by him, but he rather summarized different literature to create a comprehensive list with the intent to provide a better overview when discussing further theoretical development. This fact results in the list being non-exhaustive. The following mechanisms were compiled:

Table 1. Mechanisms and their definitions

Mechanism	Definition
Compression	Results in time savings when performing an activity
Conservation	Results in a resource reduction
(Resource) Expansion	Results in an increase in the amount of available resources
(Resource) Substitution	Creates ability to substitute a resource
Combination	Combining of resources, capabilities or artifacts to create functionality
Generation	Results in the capability of creating new devices or artifacts
Uncertainty reduction	Reduces the perceived uncertainty for business decisions

Legitimation	Makes previously illegal activities of the venture legal or socially acceptable
(Demand) Expansion	Creates higher demand even when price and functionality stay the same
(Demand) Substitution	Results in the ability to substitute demand with another (new) target group
Enclosing	Results in the ability to easier create relationships to loyal customers

It is important to note, that enablers with objectively different characteristics can provide similar mechanisms with similar effect. Similarly, the enabler does not need to positively effect society as a whole to provide a mechanism to an individual venture. (Davidsson, 2015) Furthermore mechanisms have opacity, which means the beneficial effect of the enabler can range from being very obvious or only recognizable by individuals with specialized knowledge or other extraordinary thought processes. Agency-intensity describes how hard it is to utilize the positive effect of an enabler. It can range from not needing to act at all to taking immense willingness to risk, ingenuity, and tenacity to realize the potential rewards. This term is adapted from Ramoglou and Tsang (2016), who used it as a measure along which “objective opportunities” vary. (cf. Davidsson, 2017) The concepts of agency-intensity and opacity are strategically important for new ventures since they provide the basis for a potential risk-reward analysis for perusing the benefits of particular enablers. (Davidsson, 2017; Davidsson, 2020)

Roles

The concept of roles exists to define the enablers higher-order functions at different stages of the venture creation process. Roles are related to mechanisms and therefore they are inherently relational. They comprise both the type and the scope of enablers. The three most dominant roles are triggering, shaping and outcome-enhancing. The triggering role describe the case when the entrepreneurial actor correctly identifies or anticipates some, but not

necessarily all, of the mechanisms at play and acts upon them starting the new venture creation process. Due to the research done by the discover theory stream (e.g., Baron, 2006; Gregoire et al., 2010a; Gregoire & Shepherd, 2012; McMullen & Shepherd, 2006; Shane, 2000; Wood & Williams, 2014), this role was in 2020 the most researched one. (Davidsson, 2020) However due to the concentration on the agent, it offers little on how the qualities of the “opportunity” influence the agent to act upon it. (Davidsson, 2015) Therefore there is still room for further research and theorizing.

The outcome-enhancing role on the other hand leads to better outcomes than would be experienced without the mechanism. In contrast to the triggering role, it is not responsible for starting the entrepreneurial process, but rather for improving the result of it. The problem that arises is, that activating an enabling mechanism is sometimes pure luck and cannot be anticipated. Focusing the entire strategy for new venture creation on using one mechanism that might not even be activated will inevitably lead to leaving the activation of other mechanisms and perhaps other benefits or advantages on the table. Even when the focused-on mechanism might get activated the outcome might be less desirable compared to the potential of the mechanism left unused. Creating the outcome-enhancing role is supposed to create room for scholars to develop answers to the until now hard to answer questions “What opportunities tend to go undetected?” and “When and to what extent can entrepreneurs identify the reasons for their own success?” by introducing a distinction between the triggering and outcome-enhancing roles. (Davidsson, 2017; Davidsson, 2020)

The last role proposed, the shaping role, is mainly for the time in between the triggering and the outcome. Creative entrepreneurs can use various available enablers during their creation process for their benefit and therefore these enablers help shape the new venture creation journey. (McMullen & Dimov, 2013) This role can take on three different embodiments, depending on what part of the venture gets shaped. First, the enabler can help shape the new venture product or service. An example of this would be when new technologies allow the development of better/advantageous functionalities to add onto an existing product. (von Briel et al., 2018) Secondly, the venture itself can be under the shaping influence. This can happen through several channels, as in when new regulations influence the boundaries of a venture or where the venture is located. (Amit & Zott, 2001; Davidsson 2020) The third way how ventures can be shaped does not show traces of the influence in the venture or creation

process. One example would be that a new development made the venture creation process more efficient and therefore faster or cheaper (von Briel et al., 2018).

The shaping role is neglected by models like the discovery theory (cf. Dimov, 2007; Korsgaard, 2013) and therefore represents a step forward for entrepreneurship research. It makes the point that enablers do not need to exist throughout the process and therefore do not have to exist at the beginning of the creation process. In addition, the agent might not realize their existence and therefore not utilize their potential until later in the process. Research following the creation theory on the other hand tends to neglect external factors at play. (cf. (Alvarez & Barney, 2007; Cornelissen & Clarke, 2010; Dimov, 2007; Wood & McKinley, 2010) This is the main criticism of it the creation theory framework (Ramoglou & Zyglidopoulos, 2015). Exactly this neglect is mitigated by the shaping role, because it allows for the entrepreneur to discover mechanisms in various ways throughout the creation process. (Davidsson, 2020)

2.4.5 Adaptation of the framework and criticism

Since the publication of the external enabler framework, several scholars adapted it for their research. Chalmers et. al. (2021) for example applied the framework to the global music industry using blockchain as external enabler. Through their empirical research they were able to show how different enablers can act together to shape not only the new venture creation process, but also new venture ideas. Secondly, their findings emphasize that external enablers are actor-independent, but the actor's role in shaping them is underacknowledged, at least for certain industries. Their example is the music industry, where blockchain is the underlying technology for developing new services, but the actor modifies the basis technology significantly to fit the ventures purposes. Attempts have been made by the main research team to emphasize the importance of the external enabler framework by analyzing specific enablers like the Covid-19 Pandemic, highlighting the positive aspects on new venture creation (cf. Davidsson et. al, 2021), digital technologies in the IT sector, trying to answer the question of when enablement takes pace (cf. von Briel et. al, 2018). Chen et. al (2020) used China's high speed rail expansion as enabler and found it viable as a tool for finding connections between macroeconomics a new-business ventures, while on the other hand possibly finding misalignment between special and temporal scope and suggesting that

additional nuance could be needed. Despite the criticism, the framework seems to be quite helpful for certain entrepreneurship research, as Hinderer & Kuckertz (2021) shows. Their research emphasizes, that entrepreneurs need certain competences and knowledge to fully utilize existing enablers, especially when creating sustainable ventures. Another author got the idea to study agent attributes like gender and their influence on external enablement. (Manocha, 2021) To summarize, this framework developed into an active research field with an array of different questions and academia trying to find answers for them. Each topic still has room to expand, but the important aspects of the theory for this thesis are, that new ventures are created through a highly individualized process and this creation is influenced not only by the individual or the entrepreneurial team, but also outside forces that can be defined as external enablers. These enablers can take on different roles and mechanisms with which their influence can be seen. (Davidsson et. al, 2020)

3 Methodology, Data Collection and Analysis

Now that the theoretical environment has been described, the following chapter will introduce, describe and discuss the research part of this thesis. First, it will describe the methodology used, describe and explain the data collection process and then continue with the analysis and findings.

3.1 Methodology

The nature of the research question being focused on start up stories led to the decision to choose qualitative content analysis as research method. This method is one of the most proven and extensively employed analytical tool, being successfully employed in information science for over 30 years (Allen & Reser, 1990). The most fitting definition for this analysis method is probably “a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns” (Hsieh & Shannon, 2005, p.1278). This illustrates, that the process for this analysis involves the coding of text and interpreting it within the context of the theoretical framework. The interpretation with this research method is subjective and for this study, a constructive point of view was chosen to give more room for interpretation within the short context of startup stories. This also allows for the results to be more extensive than a more literal approach. The qualitative nature of this analysis method allows to go beyond statistical methods to capture the context in which themes were mentioned. This is especially important in this case, since the enabler might not be directly mentioned in the text, but the context might clearly point to it being an important factor for the described.

3.2 Data collection

The data collection requirements between quantitative and qualitative research are different. While quantitative research requires the data to be collected randomly to be valid, a qualitative study design allows to be more selective. (Berg, 2001) In accordance with this, the data for this study was collected using a website called “Startup 100”, which provides a

list of startups from different industries. This has the effect that the data collection was not random and bias of the persons running the website is possible, but since this research concentrates on startup stories and utilizes qualitative analysis any bias that could exist is not relevant for this thesis. Most of these companies originate in Finland, but there are international firms which have a part of their business centered in Finland as well. The site was chosen for its extensive database containing several hundred startups in different stages of development and from branches ranging from AI & Machine Learning to Wellness, Fitness & Sports including branches like Biotech, Cybersecurity, Climate Tech and Nanotechnology. The high number of firms registered was necessary, since many of them did not have any startup stories on their website and from the existing stories only a fraction was useful for this research. It was necessary to visit over 500 startup websites to gather 119 files for the analysis. This fact excluded many other websites as basis for this study, since the original goal was to collect between 100 and 125 samples. In addition, “Startup 100” only provided a list of websites to visit, since each sample was collected via the Nvivo 12 browser tool directly from the company website, which means the whole webpage containing the startup story was saved. This also has the effect, that the name of the company and other information, which varies on a case-by-case basis, was collected.

The collected data was coded in Nvivo 12 using a constructive point of view and looking through the lens of the external enabler theory. This means, that there was some room for interpretation in the process that greatly aided in further understanding the collected data. A more restrictive coding method would have been counterproductive, since many stories do not mention the enabler directly, but the influence of the enabler is clear through the context. Following this, the identity, cultural background, and language understanding of the researcher has significant impact on the analysis outcomes. Therefore, it is to note, that the native language of the researcher is German, but the analysis was carried out in English. In addition, some websites were in Finnish language and automatically translated by the Google Translate browser extension into English. This combined has the underlying potential for misunderstandings which is a limitation of the study. The understanding of the business world is drawn from a bachelor’s education in Business Administration in Austria and a master’s education in International Business and Entrepreneurship in Finland, for which this research is written. The author also has accompanied a startup from its infancy to maturity, with its products being present throughout Europe. This has led to a better practical

understanding of the entrepreneurial process and therefore enabled to make better connections between the statements made on the website and the underlying theory.

3.3 Empirical findings, Discussion and Analysis

The following chapter is the main part of the thesis. First, the research context will be described followed by the analysis and discussion part. Finally, the findings will be presented in table form to provide a simplified and fast to read overview of the discussion.

3.3.1 Description of the research context

Start-up stories are short texts which are written by entrepreneurs or parts of their team to present the history and present of their business. It is considered to have the highest effectiveness of the communication form available to an entrepreneur and is therefore highly important for the presentation of the entrepreneurial activity. The purpose of telling the story is to achieve engagement with the person visiting the website. A good startup story gives an opportunity to explain how the business differentiates itself from the competition, offers a way to express the values of the business, convinces stakeholders of the likelihood of future earnings and gives the possibility to pursue future employees by convincing the reader of a high-quality work environment. It also gives potential vendors and customers a reason to get involved with the company, potentially creating revenue. (Keyser, 2013) It is important to note, that these stories only give a small overview of the development of the business and are not complete. Therefore, it is only possible to use the collected data as indication points for further in-depth research.

3.3.2 Analysis

The purpose of this study is to find out, if these startup stories reference external enablers and if there are possible relationships that can be found. According to browser records, 521 startup websites were visited to collect 119 for this study useable startup stories. Even though many more than 119 businesses had a startup story, many did not make any reference to external factors that contributed to the development of their business. Unsurprisingly, most

told the story of their company with focus on the entrepreneur. Only slightly over one fifth of the visited websites made reference to external factors and therefore contributed to the data collection of this study.

Considering the importance of startup stories, it was surprising, that quite many companies ignored the potential completely and had no text explaining their business or the history of their business. It is important to note, that this only means the website of the company was not suitable for this study, but it is still possible that external enablers were involved in the development of the business.

Analyzing the collected files was done by coding. The sections used were “Technology as enabler”, “Sustainability”, “Socio-cultural factors”, “Research center”, “Funding”, “Education center”, “Covid19”, and “Community event”. One story could be referred to multiple sections so that the references made total 194. This number compared to the 119 collected files indicates, that with a high percentage of the collected companies’ multiple enablers were mentioned.

One interesting point is what the analysis didn’t find. None of the analyzed startup stories mentioned regulatory pressures to be a factor in their development. Similarly, political enablers were not mentioned in the samples. On the other hand, natural-environmental factors could have been theoretically interpreted into some of the companies concentrating on wood as material, but since their stories already yielded other more interesting results and it was a too far stretch to suggest that the existence of wood as material had an enabling effect on the company working with it, therefore it was decided to exclude this possibility. The same decision was made for companies finding novel uses for bacteria or other natural occurrences where it was decided to classify them as new technology instead to yield clearer results. As a result of these decisions natural environment was not coded although it certainly would have been possible.

Research centers

Only two references were made to a research center being essential to the development of the business, which is by GrainSense and Solar Foods. The company GrainSense mentions the VTT Technical Research Centre in Finland which developed the technology that is used in their product. The product of the company is highly technical and used to define the quality of crops by NIR spectroscopy. The company repurposed the technology developed

by the research center for farm equipment. Solar Foods mentions, they were “born” from a research program at VTT Technical Research Center, which probably means the team that carried out the research decided to commercialize their findings.

Education center

In contrast to this, 19 different companies mentioned research carried out in an education center, mainly universities, as having been influential to their business development. The reason for this contrast is not clear from the data. Many of the 19 companies mention to be a spin-off from some Finnish university or that the idea to start the entrepreneurial activity was born from research carried out there. One example of this would be Comptek Solutions or Ampliconyx. Another way how research projects carried out by universities was mentioned in cooperations between two universities like Xfold imaging, which was founded in an alliance between Aalto University and the University of Helsinki. One outlier to this would be Aurelia Turbines, who’s entrepreneur had the product idea before reaching out to LUT University for technical support. As a result, the company was founded in collaboration with the University. It is quite interesting to see, that with 16% a relatively large portion of the analyzed companies are spin offs from university research projects.

Community events

For the section community events, the three companies who referenced them had very different stories to tell. The founder team of AppFollow met during a small hackathon, where they discussed the idea to create an app to monitor other applications. Interestingly enough, this is the only company of the 119 analyzed which mentions being born from such an event. Another event that was significant enough to get mentioned in a startup story was a startup camp organized by Demola network. The surprising part of this is that this is the only startup camp mentioned throughout the collected stories. The last company that mentions a community event has a totally different approach, Memocate leverages the WRC Finland Rally race competition for testing and improving their products.

Covid19

Since the data collected overlaps with the timeframe of the pandemic, three of the collected stories also mentioned Covid19 as enabler. All three companies came from the healthcare industry, which had the highest disruption during the pandemic. (Davidsson et. al, 2021) One of the startups developed a vaccine against the sickness, another one developed a test

for it. The third company, Hoiwa, is renting healthcare workers to where they are needed. The pandemic had the effect of higher demand for them.

Funding

One interesting aspect is that only 6 of the collected stories mentioned funding as being one of the success factors. The funding usually enabled the business to expand manufacturing, develop new products/technologies or let them gain access to other missing pieces in their business plan like a server with data upload gateway in the case of Soil Scout. One interesting case is Ägräs, which used crowdfunding to get their distillery going, which is an interesting approach considering the amount of needed capital for this. The company claims to be the first crowdfunded distillery in Finland.

New technology

This enabler was mentioned the most since sustainability is counted as own category. The circumstance in which companies mentioned new technology was mostly as the factor which enabled them to develop or build their product or in other ways improve their product. This enabler is found in almost every industry analyzed, with the brewery sector being the exception. Technology seems to be a major factor making entrepreneurship possible.

Sustainability

This enabler could be classified as a subcategory of socio-cultural factors, but since it was so prevalent in the data it got its own category. Around 50% of the collected startup stories mentioned sustainability with a wide range for the level of dedication. Some companies mentioned their whole business model focusing on sustainability whereas others just seemed to try to include sustainability in their story in some way. For companies like Geysir Batteries or Polar Night Energy the reason to develop their product was to find more sustainable solutions to problems we currently face, which would be examples of the highest dedication level to sustainability.

Other socio-cultural factors

These enablers had the widest variety in their characteristics, simply because socio-cultural factors are a broad category. This category mainly describes the emergence of demand because of social factors, from very serious subjects like the increasing world population creating a higher demand for food (e.g. for SolarFoods) to the trend of wearing a specific

design of clothes (e.g. Spinnova). In general, there seems to be the trend that socio-cultural factor works through the mechanism of demand generation since despite the wide variety in enablers, all of the analyzed companies that mentioned this enabler have seen this effect from it. Following, these findings are summarized.

Table 2. Summary of findings

	Relevant cases	Analysis
Collected cases	119	Only around 23% of the visited websites contained relevant data, many startups do not showcase their story at all
All references	194	There were significantly more references found than startup stories collected
New technology	63	New technology is mostly described to take the role of enabling companies to build their products in specific ways so that they meet a current need
Sustainability	57	Sustainability was measured separately since it is highly valued in our society and therefore the influence of this socio-cultural enabler was very visible throughout the data. Many of these companies advertise themselves as environmentally friendly alternatives to already established businesses because they know it is something many potential stakeholders view as a positive.
Other socio-cultural factors	48	Socio-cultural factors had the widest variation in their appearance, but in general they seemed to create a demand for the products of the company which mentioned them
Research center	2	Relatively little entrepreneurial action comes from research

		centers, at least in this batch of analyzed companies
Funding	6	The relatively low number of stories that mentioned funding might be a result of the authors of the stories not wanting to speak of financial matters when presenting their companies
Education center	19	In this batch of cases, research carried out by education centers seems to result in more practical, for entrepreneurs' useable knowledge
Covid-19	3	For the analyzed timeframe, covid was mentioned by companies in the health care sector as enabler
Community event	3	Different community event can bring people together and create new venture ideas through discussions, but they seem to be quite rare cases.
Two or more enablers mentioned	64	Over half of the collected stories mentioned 2 or more enablers which shows, that more than one enabler can influence business development simultaneously
Three or more enablers mentioned	12	These cases are especially interesting since multiple enablers influenced them at during the development process. These companies would be a good starting point for research focusing on the relationships between enablers, since they could offer the potential for high quality data collection

3.4 Discussion

One of the first surprising results from analyzing the collected data was, that many companies simply didn't have a startup story at all, with some introducing the entrepreneurial team instead. Many companies showcasing a story also focused on the founding individual instead of the founding history of the company. The fact that many companies are not using one of the most effective, cheap, and basic communication tool shows, that with many startups there is a lot of marketing potential left untouched. This could be due to poor education or little consideration from the entrepreneurs and might mean, that basic courses in how a new company should be set up, how to market it and especially how to present the new venture via website could have positive results for the growth rates and endurance of the companies in question.

Regulatory pressures and political enablers

That regulatory pressures and political factors were not mentioned does not mean, that these pressures did not exist. The most likely explanation for this is the marketing aspect of startup stories. It does not look good, if the whole business model is based on a regulation change or even if a regulatory change was a major factor for the development of the business, since there is always the possibility of the change being reversed or the intent of the government on that particular topic to change. Therefore, it might be that these parts of the founding history are just left out in startup stories, but they might be abundantly found when conducting research on the same companies with deeper data like interviews for example.

Education and research centers

Education centers were mentioned quite frequently, which shows they play a role in helping individuals create new ventures. It potentially demonstrates the effectiveness of some of the projects carried out by education centers, which in terms means if the goal is to spur entrepreneurial ideas, research projects at universities can be a great way to do it. This might take the shape of a local government providing funding for experimentation or a professor being motivated to start a project with some interested students. In contrast, research centers were far less prevalent in the stories. It could be possible, that the number of research projects carried out in universities just vastly exceeds the number of projects carried out by research facilities, the research in facilities could be more focused in areas where results are

not as useable for entrepreneurial purposes or other factors could be at play, but the analysis for this thesis gave the impression that education centers deliver a higher degree of effectiveness to spur entrepreneurship than research centers do. One interesting thing to note is that education centers were often mentioned as in the new venture is a spin off from a university, which points to a triggering role of universities in contrast to research facilities, who took more of a shaping role for the analyzed companies, although the sample size is certainly not large enough for this to draw conclusions. (Davidsson et. al, 2020)

Community events

It was quite a surprise to see community event be mentioned so little, since it could be seen as a typical enabler with the combination mechanism because these events usually spur conversation and discussion, combining the thoughts of multiple people who are interested in the same material. Even more surprising is, that only one of the mentions was a community event as typically imagined, the hackathon where exactly the afore mentioned happened according to the story of AppFollow. One community event, the WRC Finland Rally, has the function of a testing ground for developing better products which can be interpreted as compression mechanism since a lot of testing can be done in a shortened time frame. Therefore, for this company the community event is outcome- enhancing. (Davidsson et. al, 2020)

Covid-19

It was quite interesting to see Covid19 mentioned as enabler in startup stories, since Davidsson published together with Recker and von Briel (2021) a paper studying Covid-19 as enabler, coming to the conclusion that the pandemic showed the importance of studying and understanding external change and acting upon said understanding is essential for entrepreneurship. In his opinion, many who understood the implications of the external change could benefit greatly from the effects the pandemic had on our society. According to this article, the most significant changes could be observed in the medical field and the fact that all companies from this data collection who mentioned Covid-19 as enabler are in the medical field confirms this even though each company used the enabling forces in slightly different ways. This shows that the same enabler can have multiple facets of how it can be taken advantage of. The mechanisms of this enabler seem to have varied since there was such a wide spectrum of possible effects, but all three companies saw demand creation for

something that earlier didn't see demand either at all, or at much lower levels. That leads to the conclusion that at least one aspect of this enabler is demand creation.

The three main enabler categories and their relationships

This closes the discussion of the in the collected data not so often mentioned enablers. The following will discuss the three most mentioned enablers sustainability, socio-cultural factors, and technology plus mentions the possible relationships between them. One reason why these factors are mentioned so often could be the nature of startup stories as advertising tool, since especially new technologies and sustainability can be factors that influence the buying decision of customers. (Prasad et. al, 2014) Technology was referenced the most with around half of the collected startup stories mentioning it as vital part of their entrepreneurial journey. The common theme is, that technology is used to solve an issue or meet a need in a way that previously was not possible or feasible. In this way, technology often enables the company to develop and produce a product that is needed or wanted. The mechanisms for new technology, especially digital technologies are in theory compression and conservation, which means the amount of time to achieve something is reduced or the resources needed to achieve something are reduced. (Von Briel et. al, 2018) This can be observed in the samples for this thesis, where the increased speed or reduced resources needed make it possible to commercialize something that previously was not feasible to do so. One example of this would be Geysers Batteries. Batteries exist for a long time, but the resources needed to build batteries with large capacities were quite enormous. New technologies enable the company to reduce these resources to a level that make it possible to store larger amounts of electricity for a resources consumption level that is more acceptable.

Quite often, technology can be seen referenced in combination with other enablers such as sustainability or socio-cultural factors, as in certain technology is used in a product to make it more sustainable or to create a product that offers a more sustainable solution for a problem. The phenomenon of combining technology and sustainability seems to be especially pronounced in the energy industry with Geysers Batteries or Polar Night Energy as great examples, but it can be observed in a variety of industries including waste management (ProtectPipe), the textile industry (Spinnova) or the building industry (Betolar as provider for a sustainable concrete alternative). In general, the analysis showed the trend of industries that a generally considered dirty and environmentally unfriendly being the main

focus of startups enabled by the factors new technologies and sustainability. There might be other enablers at play, like regulatory ones, but none were mentioned.

The same concept can be applied to socio-cultural factors, where demand is created because of a variety of factors and companies try to satisfy this demand by developing new technologies. This relationship seems to show in a wide variety of cases, like socio-cultural factors themselves, and it was not possible to find a typical scenario for how this relationship forms. One example would be mental well-being services. The socio-cultural factor, that more and more people suffer from depression and other sicknesses that make them feel mentally unwell, creates demand for healthcare service that can deal with such issues. (Stuijtzand et. al, 2020) Technology like videocalls is leveraged by Auntie to satisfy the demand for mental health counselling more efficiently and to reach more people than traditional services. Another case of this would be Healthzilla, where automation technology is applied to the fitness industry. In general, there is a trend found, that socio-cultural needs are met by technology in the health industry.

There are also examples found, where sustainability and socio-cultural factors seem to be combined as reasoning to offer a product. One example of this would be Cooler Future, an investment company that specializes in sustainable investments. The fact, that a large group of people wants to do their part in creating more sustainable ways of living and investing is a large area where a difference can be made offers opportunities to companies like Cooler Future to offer tailored portfolios. The general theme in socio-cultural factors is, that societal trends create a problem or need, and entrepreneurial action is started to meet the need or solve the problem. Lovia would be a good example of this, because according to their story the company was created “when Outi realized she couldn’t continue as a designer unless she came up with a way to turn around the vicious cycle of overproduction and overconsumption”. Here, social and cultural factors like the current consume society create sustainability issues like overproduction, overconsumption and consequently excessive waste. That means in this case, one external enabler developed into being a problem which created another external enabler. Combined they created conditions with different demands to take advantage of the enablement from both.

Omago combines sustainability and socio-cultural factors into a different form of enablement. The socio-cultural factor they leverage for their business is car ownership and the problems related with it. Like high costs for an item that generally does not get much

use. The other factor is, that each person owning one car is simply not sustainable from an environmental, production and space in cities point of view. Omago, as well as other companies, saw the opportunity to offer car sharing services to take advantage of that situation.

Another facet of the possible relationship between socio-cultural factors and sustainability, which adds technology into the mix is the case of the company Solar Foods. Actually, this company uses multiple enablers simultaneously since it was founded through the VTT Technical Research Center and therefore this company would be a good case study for the effects of multiple enablement. They claim that the current way of producing food is unsustainable for our planet. We are producing food in this way, because culturally society wants cheap and tasty food, this is the socio-cultural factor. Solar Foods tries to solve this issue via technology, which adds the third enabler to the relationship. It is unclear, if and how the research center is related to the other enablers, so it is counted separately. This is a limitation of this analysis due to the brief nature of the data collected.

In some cases, technology, socio-cultural factors or sustainability can be seen as the only enablement mentioned in the startup story. This is especially the case in the fashion industry (e.g. New Standard, Spinnova,...) and the service industry (e.g. Freska, Swappie). Still, around half of the collected samples mentioned two or more enablement's, which can indicate that it is quite common for multiple enablers to influence the development of a business simultaneously. In addition, there where companies analyzed that mentioned three or more enablers that where simultaneously meaningfully involved. The companies identified, that mentioned 3 or more enablers in their stories are PiBond, Vilmari, P2X Solutions, CH Bioforce, Meeko, Soil Scout, Solar Foods, Rokote Lab, Aurelia Turbi, Geysler Batteries, Redono and Innomost. Though the analysis does not go deep enough to yield results about how these enablers interacted with each other, the author got the impression that they created a unique set of circumstances which allowed the company to create a product that is quite original in some of it's attributes. In many of these cases new technology, sustainability and socio-cultural factors each fill an important role and play together. Solar Foods would be a great example of this, because technology made it possible for them to solve conceptionally one of the problems created by the socio-cultural factor of growing earth population. This growing population creates sustainability issues, especially for protein production since it consumes many resources. It can be reasonably assumed, that

without one of the three enablers mentioned, the company would not exist. In addition to that, a research center is mentioned to be involved. It can be assumed, that through the research center the new technology making the product possible emerged. PiBond would be an example for a different type of relationship. Again, new technologies build the basis for making their products, highly advanced semiconductor materials, possible. The macroeconomic factor builds here the grounds for the situation in which their products are in high demand, even though it is not mentioned in the startup story itself. In this case it seems like the company founder realized that Europe is quite reliant on Asia for their semiconductor supply and aimed at bringing the production back to Europe. As a result, they are according to the company website the only independent supplier of their specialized materials. A socio-cultural factor, the increasing need for faster and more efficient chips to make digital progress possible, is boosting their demand further and might be the motivation behind starting the company in 2014. In both of these cases, it seems that the different categories of enablers take similar roles. For PiBond and SolarFoods, as well as for many others of the analyzed companies, technology seem to take to role of making the product possible. Socio-cultural factors generally seem to have an effect on demand for certain types of products.

3.5 Practical Implications

This thesis has shown that outside forces influencing new venture creation are present and traces of that can be found in startup stories. How significant and divers these forces are is company and situational dependent, but trying to understand them can result in competitive advantages. The external enabler framework has shown to be a good concept to set these forces into a theoretical concept so that they can be analyzed and better understood. Therefore, the first implication from the findings is that entrepreneurs would benefit from education about the framework. At the same time, the lack of a simple story on their website or the wrong focus of the story on the founder instead of the company indicates that also here is room for education and improvement with many entrepreneurs. Another factor would be, that since education centers seem to be more efficient to spur entrepreneurship than research centers, this is where the effort should be concentrated if the goal is to strengthen the local startup community. This advice is strengthened by the previous arguments, since education centers can also handle the proposed education of the individuals.

For policy makers and local governments, it would be important to support education centers and their research, since this thesis has shown that the combination of developing new technologies in education centers can be an efficient way to support the local economy by encouraging entrepreneurship.

Another important take away from this thesis is, that there can be multiple enablers helping the company development simultaneously, so it is not necessary to concentrate on one possible enablement at a time. This knowledge could bring a mindset change with it, where entrepreneurs are more conscious of their environment, try to analyze it and set up their companies in a way to try take advantage of multiple possible enablers. This more thoughtful approach could yield better results.

3.6 Answering the research question

In reference to the research question “What external enablers are mentioned in startup stories?” it can be said that there is a wide variety of answers. Firstly, many stories that concentrate on the history and experience of the entrepreneur do not mention any enablers. Only stories that tell the founding history of the company do, but then they mention a wide variety of enablers. The most popular category of enablers was socio-cultural (sustainability and other socio-cultural factors combined), with new technologies being very popular to mention as well. Other enablers like funding, education centers and community events were found, but not as regularly. Enablers of regulatory or political nature were not found in the data collected for this thesis.

3.7 Limitations and further research suggestions

This study by no means is able to determine the actual importance of the examined factors to the development of the business. Mentioning something in a story is a subjective evaluation that does not necessarily mirror reality. In addition, Startup stories provide generally quite shallow data to work with. Startup stories are generally written to paint the company in a good light and to sell an image. On the other hand, the amount of data collected

is not significant enough to provide a statistically accurate representation of the entrepreneurial environment and because the data was not randomly collected this study is not suitable for quantitative research. The qualitative approach was also chosen, to extract as much data points as possible through the analysis because the key words used can be significantly different but point to the influence of the same enabler. Therefore, the analysis had to be performed within the context of the whole text. All these factors combined means, that this study is able to give an indication which enablers could have been influential to the businesses analyzed, but it is not able to paint a full picture about the actual development processes that have taken place. On the other hand, this study is useful to identify companies that could be fruitful candidates for further, deeper research on the influence of enablers on the development of Startups. It seems that the current external enabler framework does not have a concept on if and how enablers can interact with each other or maybe even through the act of individuals which are using the enablement create new external enablers. This could then create a new enablement possibility. This is quite a large knowledge gap that got exposed. Further research could start with the list of twelve especially interesting companies identified by this thesis and for example interview the founders about the founding history of the company and focus on external influences that helped. The goal would be to collect as accurate and detailed data as possible on how the enablers influenced the company's development and what effects these influencers had on the companies. This would offer the opportunity to develop new theories of how external enablers could interact with each other and how the influence of multiple enablers simultaneously could differ from the influence of one enabler. As a result, the external enabler framework could be expanded. A simpler approach would be to simply take the companies from this study and collect deeper data to confirm, if the mentioned enablers had a visible effect on company development since there is a possibility that at least some of the collected data is biased due to the marketing nature of startup stories. A study like this could confirm or correct the results of this study and see if deeper data collection would bring up new results. Another research approach could be to simply expand the focus of the study from mostly Finnish companies to for example startups from all over Europe and to see, if that would bring significant changes to the results.

4 Conclusions

This study analyzed the stories startups publish on their websites through the lens of the external enabler framework to validate the framework, possibly develop it further and get an overview, which enablement's were considered important enough by the entrepreneurs to include in their most important way of communicating the importance to get involved with their company. If there were multiple enablers mentioned, are there any relationships indicated or did they seem to influence independently from each other? The external enabler framework is relatively new and therefore has numerous research gaps, but it is currently used as the basis for research work into several different directions, so the body of knowledge is rapidly growing. One of these gaps is targeted by this study by focusing on enablers in the context of startup stories. The first finding from collecting the data was, that a considerable number of websites didn't have a story at all and from the ones who had, only few were suitable for this analysis. The answer to the research question, that there were enablers identifiable and that technology was the most mentioned enabler, followed by sustainability and socio-cultural factors does not do the findings justice, because the gathered data indicates clearly, that for some companies' multiple enablers were in relationship with each other to create some of the parameters of the company's development. The types of relationships and how external enablers can interact with each other to create new enablement environments should be the subject for further research though, since it was out of the scope and possibilities for this thesis. This study found some good examples for case studies that could go deeper into the business development timeline of individual companies which seemed to have had significant influence by multiple enablers. One aspect of this research is, that it could show how common and influential external enablement is in entrepreneurship. It is to note, that the enablement is visible in the short company introduction of startup stories which can be seen as validating the existence of external enablers in real life entrepreneurship. Of course, this study is very limited. 119 analyzed cases do not reflect the entrepreneurial environment and can only give a rough estimation of the real situation. In addition, startup stories give only a very limited view of the actual development history. Only carefully selected parts of the whole story are presented in a way that reminds more of advertising than a representation of reality. This has the effect, that the collected data only provides a shallow overview and

never the full picture for each company. On the other hand, this analysis had the side effect to identify companies that could have had quite strong influence of multiple enablers through their business development, and it would be worth to do more specific, deeper focused research on these companies. The companies identified, that mentioned 3 or more enablers in their stories are PiBond, Vilmari, P2X Solutions, CH Bioforce, Meeko, Soil Scout, Solar Foods, Rokote Lab, Aurelia Turbi, Geysers Batteries, Redono and Innomost. While the external enabler framework itself is well defined, there is room for expansion and improvement. One possibility for this is shown by this study, which has shown that a theoretical basis for how different external enablers can interact with each other is missing.

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