

**UNIVERSITY OF VAASA**  
**SCHOOL OF MARKETING AND COMMUNICATIONS**

Aku Sylvin

**THE SENSEMAKING OF BORN GLOBALS IN INTERNATIONAL FIRST-TIME  
OPPORTUNITIES**

Master's thesis in  
International Business program

**VAASA 2020**



## TABLE OF CONTENTS

	<b>page</b>
<b>LIST OF FIGURES AND TABLES</b>	<b>7</b>
<b>ABBREVIATIONS</b>	<b>9</b>
<b>ABSTRACT:</b>	<b>11</b>
<b>1. INTRODUCTION</b>	<b>13</b>
1.1 Background of the topic	13
1.2 Research gap	15
1.3 Research objective and questions	18
1.4 Key literature	18
1.5 Structure of the study	19
<b>2. THEORETICAL BACKGROUND</b>	<b>20</b>
2.1 Effectuation and born globals	20
2.1.1 Effectuation and causation approaches	20
2.1.2 Effectuation and SMEs' internationalization	22
2.1.3 Born global phenomenon	26
2.1.4 Born globals from causation & effectuation perspective	27
2.1.5 Entrepreneurial opportunity recognition	29
2.2 Sensemaking	31
2.2.1 Entrepreneurial sensemaking	33
2.2.2 Sensemaking in internationalization	35
2.2.3 Sensemaking in effectuation process	38
2.3 Heuristic and analogical reasonings in international business context	40
2.3.1 Examples of heuristic reasoning	42
2.3.2 Structure mapping theory and scripts	44



2.3.3	Heuristic and analogical sensemaking	46
2.4	Interfaces between the theories of the thesis	48
2.5	Theoretical framework	50
2.5.1	The sensemaking of effectuation-based born globals	50
2.5.2	Heuristic and analogical reasoning in international context	51
2.5.3	Projected results	51
<b>3.</b>	<b>METHODOLOGY</b>	<b>54</b>
3.1	Research philosophy	54
3.2	Research approach	55
3.3	Case study approach	56
3.4	Research method	57
3.5	Reliability and validity	58
3.6	Data collection	61
3.6.1	The data collection plan	61
3.6.2	The data collection in practise	62
<b>4.</b>	<b>RESULTS</b>	<b>64</b>
4.1	Case 1	66
4.1.1	Born global characteristics	67
4.1.2	Heuristic and analogical reasoning	68
4.1.3	Sensemaking towards employees and investors	72
4.2	Case 2	75
4.2.1	Born global characteristics	76
4.2.2	Heuristic and analogical reasoning	77
4.2.3	Sensemaking towards employees and investors	82
4.3	Case 3	85
4.3.1	Born global characteristics	86
4.3.2	Heuristic and analogical reasoning	87
4.3.3	Sensemaking towards employees and investors	90



4.4 Cross-case analysis	94
4.4.1 Heuristic and analogical reasoning	94
4.4.2 Sensemaking towards employees and investors	97
<b>5. CONCLUSIONS</b>	<b>100</b>
5.1 Sensemaking of born globals in international context	100
5.2 Heuristic and analogical reasoning among young born globals	101
5.3 Managerial implications and limitations of the study	102
5.4 Theoretical implications and suggestions for the future research	103
<b>LIST OF REFERENCES</b>	<b>105</b>
<b>APPENDIX 1. The Pre-Questions for Case Companies</b>	<b>117</b>
<b>APPENDIX 2. The Interview Questions for Case Companies</b>	<b>118</b>



## LIST OF FIGURES AND TABLES

<b>Figure 1.</b> A matrix of prediction and control, adopted from Sarasvathy et al. 2008.	25
<b>Figure 2.</b> The difference between heuristic and analogical reasonings, adopted from Jones & Casulli 2014.	42
<b>Figure 3.</b> Interfaces between the themes of the thesis.	49
<b>Figure 4.</b> Theoretical framework.	53
<b>Table 1.</b> Characteristics of causation and effectuation approaches, Sarasvathy 2001; Read & Sarasvathy 2005.	22
<b>Table 2.</b> Different approaches for sensemaking phenomenon.	33
<b>Table 3.</b> Elements of heuristic and analogical reasonings.	48
<b>Table 4.</b> Characteristics of the case companies and the nature of data	65



## **ABBREVIATIONS**

AI	Artificial Intelligence
AV	Audiovisual
CEO	Chief Executive Officer
EU	European Union
INV	International New Venture
IT	Information Technology
NHS	National Health Service
MNE	Multinational Enterprise
MNC	Multinational Corporation
R&D	Research and Development
SME	Small and Medium-Sized Enterprises
UK	United Kingdom
US	United States
USP	Unique Selling Proposition



---

**UNIVERSITY OF VAASA****School of Marketing and Communications**

**Author:** Aku Sylvin  
**Topic of the Thesis:** The Sensemaking of Born Globals in International First-Time Opportunities  
**Name of the Supervisor:** Peter Gabrielsson  
**Degree:** Master of Science in Economics and Business Administration  
**Master's Programme:** International Business  
**Year of Entering the University:** 2015  
**Year of Completing the Thesis:** 2020 **Pages:** 120

---

**ABSTRACT:**

Born globals can often be characterized as entrepreneurial firms that lack resources and face high level of ambiguity towards their future. Despite these factors, they tend to have international opportunities in the early stage of their life cycle that can be called international first-time opportunities. As the effectuation and causation approaches manage to explain the reasoning of entrepreneurial firms from resource exploitation perspective, the cognitive reasoning has also a remarkable role in the entrepreneurial firms, wherein the role of the entrepreneur individual is highlighted. Moreover, while the sensemaking phenomenon in business context emphasizes the causation type predictability in terms of opportunity creation, the born globals in the early stage of their life cycle are not often able to provide such predictability for different stakeholders of the company.

This study covers firstly the effectuation and causation approaches in order to clarify their central role in entrepreneurial decision-making. The sensemaking phenomenon is considered in this study from the international entrepreneurship perspective, that highlights sense-giving, particularly, for employees and investors as stakeholders in opportunity creation. The cognitive reasoning chapter considers heuristic and analogical reasoning in order to understand the knowledge and experience exploitation of born globals. The methodology part of this thesis includes the justification to use qualitative interviews of three born globals in terms of case study analysis. When it comes to the results of the case analysis, the born globals tend to make sense towards their employees and investors based on causation, effectuation and enactment logics. Moreover, the heuristic reasoning has been often used in the case companies while they lack the specific knowledge or experience related to their industry, international markets or entrepreneurship. The analogical reasoning has been exploited more when the case companies have gained knowledge and experiences after the foreign market entries or if the companies have other type of knowledge or experience, that matches with their international first-time opportunities.

---

**KEYWORDS:** Born global, sensemaking, cognitive reasoning



## 1. INTRODUCTION

### 1.1 Background of the topic

The internationalization of SMEs and born globals has a remarkable role, particularly, in small economies. For example, domestic businesses are relatively limited in Nordic countries in terms of small markets (Knight & Cavusgil 2004; Holmlund, Kock & Vanyushyn 2007; Casey & Hamilton 2014). According to Eurofound (2012) smaller countries tend to have higher share of born globals than large countries and, for example the born globals represent around 50% share of startups in Nordic countries when only around 12% share in France. Therefore, the idea of the study is to support the development of entrepreneurship literature because it is relevant from the Nordic perspective. However, the born global phenomenon today is not limited to small economies, as the number of born globals has been increasing worldwide (Knight & Cavusgil 2004; Knight & Liesch 2016). Due to this fact, it is important to study this phenomenon because it is a global trend. Moreover, the definition of born global has been often presented to include international activities within three years of its inception with 25 percent of export relation compared to total sales (Sinkovics, Sinkovics & Ruey-Jer 2013). Generally, the born globals can be categorized as firms that go to international markets in the early stage of their life cycle (Knight & Cavusgil 2004).

Recently, there has been some examples of successful Nordic born globals. According to Talouselämä (2016) Finnish Supercell is a rapidly grown internationalizing company in mobile game industry that managed to be the most successful mobile game manufacturer in the world in 2015. From the internationalization perspective it is relevant that the company's success was partly result of success in Chinese markets. (Talouselämä 2016). Wallin, Still and Henttonen (2016) suggest that such technology start-ups such as Supercell have a remarkable role in terms of lifting Finnish economy out of recession, particularly, when Nokia has no longer as relevant employing power as before. Swedish Klarna had a different internationalization path compared to Supercell as they relied on the traditional Uppsala model style by going to the nearest markets first (Wentrup 2016; Johanson & Vahlne 1977). The

company that is specialized to online payment solutions for e-commerce merchants started their business in domestic markets during the year 2005, went to the Nordic markets in 2008 and finally to the global markets in terms of US entry in 2015. (Wentrup 2016) Although, Klarna is on the boundaries of born global's theoretical requirements with its three-year domestic-period (Sinkovics et al. 2013; Gabrielsson & Garielsson 2013; Wentrup 2016), it shows that the traditional internationalization, which focuses on nearest markets, is not out of date (Johanson & Vahlne 1977). Klarna's case is also an example of a new foreign market entry phenomenon; internet internationalization (Wentrup 2016). A start up called Too good to go is a recent example of another Nordic-based firm that has been able to go rapidly to the international market. The Danish-based mobile application has turned European food waste problem to their business opportunity by developing an application that connects various restaurants. Therefore, consumers may find food to be wasted with discounted prices. After the application was launched in Denmark during 2016, the company has expanded its business by making contracts with such international partners as French Carrefour and Accor. (EU-startups 2019) Too good to go's case points out the importance of relationships and business networks related to internationalization (Hite & Hesterly 2001; Galkina & Chetty 2015).

The startup and born global examples above show different Nordic-based paths to reach international growth with rapid internationalization strategy. According to Wallin et al. (2016) *“with better understanding of the growth ambitions of technology entrepreneurs, we may better help them achieve such growth”*. This citation is in the core of this study as the intention is support the understanding of decision making and reasoning logics among different born globals in order to support growth of future's born globals.

In theory the idea of entrepreneur phenomenon is to investigate how the business opportunities are created, why certain people discover them and how different actions influence them. These business opportunities may occur when certain resources can be sold with a higher price than the cost their production caused. Generally, financial resources, social ties and a specific type of knowledge are the factors enabling the opportunity exploitation. (Shane &

Venkatamaran 2000) Traditionally, these advantages have been connected to large companies that have less constraints to invest in human resources and business operations than small companies (Johanson & Vahlne 1977). However, for instance the effectuation theory introduces a way to understand how, particularly, SMEs are able to exploit their limited resources in order to survive even in relatively competitive international markets (Sarasvathy 2001; Galkina & Chetty 2015). The international markets make the opportunity creation more challenging for entrepreneurs, because it includes the idea of creating multiple opportunities instead of focusing a single one (Reuber, Knight, Liesch & Zhou 2018). Moreover, according to Kraus, Niemand, Angelsberger, Mas-Tur and Roig-Tierno (2017) international opportunities has not been researched in entrepreneurship literature until recently.

From the international business perspective, it is relevant that the resource-based view and the network/relationship perspective cannot alone explain the decision making of international firms as these decisions are often outcome of single manager's reactive behavior (Dimitratos & Jones 2005). Moreover, according to Buckley (2014) managers of multinational enterprises often rely on rationality when they are forming their investment possibilities, but during the actual investment decisions they are rather relying on past experience and personal judgement. Sarasvathy et al. (1998) suggest with regard to similar issue that differences in cognitive capabilities may drive individuals' choice of becoming, for instance investment bankers or entrepreneurs. Therefore, it appears that cognitive issues and experience have remarkable impact in business environment. Due to the under-theorized role of individual experience in international entrepreneurship literature (Jones & Casulli 2014), it is relevant to develop new empirical studies related to managerial reasoning and decision making.

## 1.2 Research gap

Entrepreneurial opportunity recognition includes the idea of clarifying, why certain entrepreneurs find certain opportunities (Shane & Venkataraman 2000) and especially such decision-making logics as effectuation and causation approaches have been illustrated it among entrepreneurial firms (Sarasvathy 2001; Sarasvathy & Dew 2008, 2013; Daniel, Di Domenico &

Sharma 2015). The effectuation approach has been connected by Nummela, Saariketo Jokela and Loane (2014) to be common for companies in the early stage of their businesses. The effectuation theory has been studied in international business literature from various of perspectives. For instance, Galkina and Chetty (2015) investigated this theory related to international networks, Chetty et al. (2015) studied effectuation in international strategies and their implementation process, Andersson (2011) from born global perspective and Gabrielson and Gabrielson (2013) from international survival/growth perspective. While, Sarasvathy (2001) describes effectuation to be a phenomenon, wherein existing individual experience or knowledge is exploited creating new business opportunities without pre-determined goals it does not answer how an individual is reasoning what is important background knowledge or experience. Although, judgement making is an important part of effectuation theory because it considers decision making without existing obvious model or decision rule (Sarasvathy & Dew 2013), the effectuation approach does not give a deeper answer to judgement making in addition to the explanation of existing means (Sarasvathy 2001).

According to Jones and Casulli (2014) the role of individual experience in reasoning process is not widely investigated in the International Business literature. Heuristic and analogical reasoning logics may help to understand the role of the existing experience exploitation of an individual when it comes to the internationalization of an entrepreneur company. As heuristic reasoning is often based on deduction and intuitive behavior, analogical reasoning relies on inductive logic and more organized structure mapping of the similar elements of experiences. (Jones & Casulli 2014) When the effectuation theory emphasizes the importance of pre-existing experience/knowledge instead of gathering new experience/knowledge (Sarasvathy 2001), the effectuation literature does not consider whether the entrepreneurs are reasoning their experience based on heuristic, analogical or some other logic (e.g. Sarasvathy 2001; Saravathy & Read 2005; Andersson 2011; Sarasvathy & Dew 2013; Gabrielson & Gabrielson 2013; Galkina & Chetty 2015; Chetty et al. 2015). Moreover, when the effectuation theory explains the entrepreneur's created effect based on who he is, what he knows and whom he knows (Sarasvathy, Dew, Read & Wiltbank 2008), heuristic and analogical reasonings extend this theory from the cognitive perspective by examining how the existing

knowledge and experience are exploited and selected in a new situation (Jones & Casulli 2014). When there is a limited amount of studies related to heuristic and analogical reasoning logics related to the internationalization of a firm, a new empirical study related to them could promote a better understanding of the actual implementation of effectuation internationalization. Moreover, the purpose of this approach is to extend the explanation of causation and effectuation approaches with cognitive reasoning perspective. (Jones & Casulli 2014)

According to Maitland and Sammartino (2015b) sensemaking has a remarkable role in international business opportunities. For example, in international expansion situations it means; “*where and how to expand firm’s activities*” and related to useful market knowledge; “*what to look for, how to analyze it and its implications*”. (Maitland & Sammartino 2015b) Vision and stories can be seen an example of effective sensemaking, wherein cause and outcomes create predictability inside a business organization (Watts et al. 2019). For example, Vallaster and De Chernatony (2005) emphasize the role of actual vision implementation in terms of mundane activities related to brand promises in global markets. Besides, Watts et al. (2019) suggest that vision is particularly important for followers in complex environments because it provides the needed predictability for the future. However, when effectuation theory emphasizes non-predictive control over predictability (Read & Sarasvathy 2005), there is a possibility that the vision of the effectual entrepreneur without predictability is lacking the consistency needed for international markets success (Vallaster & De Chernatony 2005). The inconsistency in the international market may inhibit, for example the creation of a strong brand (Vallaster & De Chernatony 2005). As Watts et al. (2019) see the sensemaking phenomenon to be a measure to rationalize future for followers with some predictability, the effectuation theory does not include such predictive approach (Sarasvathy 2001). The connection between effectuation theory and sensemaking theory has been studied from enacting and family start-up perspectives (e.g. Jones & Li 2017; Bhowmick 2015) but the literature lacks studies that focus purely on the born global perspective, which provides a research gap for a new empirical study. The born global perspective is particularly interesting because the born globals are young firms with that are facing a high level of environmental ambiguity (Gabrielsson & Gabrielsson 2013), whereas the sensemaking phenomenon from opportunity

creation perspective emphasizes predictability providing for a company's stakeholders (Betiol 2012; Albu & Wehmeier 2014; Watts et al. 2019).

### 1.3 Research objective and questions

By following the issues in the research gap, the study includes a research objective and two research questions to be answered with the literature and the empirical parts of the thesis. The research objective of the thesis is to *investigate opportunity recognition and creation among the born globals and their sensemaking in international context*.

The research objective can be divided to two narrowed research questions:

- 1) *How do born globals handle the sensemaking process in their international first-time opportunities?*
- 2) *Do born globals tend to use heuristic or analogical reasoning in their early-stage international opportunity recognition and how?*

### 1.4 Key literature

The key literature of the study includes primary the evaluation of effectuation theory and born global phenomenon as they both are crucial issues in international entrepreneurship. The effectuation concept will be explained, particularly, from the internationalization and the entrepreneurship perspectives. The theory has been adopted to this thesis mainly because it explains entrepreneurial decision-making and the reasoning of the early-stage business opportunities (Sarasvathy 2001; Nummela et al. 2015). Born globals provide, particularly, a target group for the thesis as they face high level of ambiguity about the future during the early stage of their business (Gabrielsson & Gabrielsson 2013). Moreover, the heuristic and analogical reasoning logics will be explored in order to examine their role in international business. The role of these theories is to emphasis the cognitive perspective of entrepreneurial

reasoning, which often provides answers; how the existing knowledge has been used in a new situation (Jones & Casulli 2014). The theory part will also include sensemaking concept in order to clarify its role in internationalization literature. Sensemaking has been researched in the thesis since it is a fundamental process of defining why organizations exist in the first place (Rasmussen, Madsen & Evangelista 2001). The idea is to find interfaces between these different concepts leaving also possibilities for unpredicted literature findings.

### 1.5 Structure of the study

The first part of the research includes introduction wherein the research topic, the literature gap and the importance of the topic will be explained. The theoretical framework section sheds light on effectuation approach, born global phenomenon sensemaking phenomenon and the nature of heuristic and analogical reasoning. The purpose of this chapter is to find specific issues to be investigated in the empirical part. The methodological chapter puts the theory into practice by explaining the research methods. In the results section, each case company has been analysed separately related to the theoretical key issues. The chapter includes also a cross case analysis part, wherein different case companies are compared based on the single case results. Finally, the most relevant results will be summarized in the conclusions part, which considers whether the empirical part responds to the research questions. In this chapter it will also be evaluated what kind of implication the results have to the existing theory and managerial practises.

## 2. THEORETICAL BACKGROUND

Due to the increasing trend of born globals (Knight & Cavusgil 2004; Knight & Liesch 2016) the theoretical part of the thesis focuses on such entrepreneurial related themes as effectuation and causation theories, sensemaking in organizational context and heuristic and analogical reasonings. The similarity of these themes is that they all try to explain the reasoning of SMEs and born globals in international context. As effectuation and causation theories are explaining the exploitation of resources (Sarasvathy 2001; Bhowmick 2015), sensemaking focuses on giving framework for unknown issues (Weick 1995: 4) and heuristic and analogical reasoning provide a cognitive explanation for reasoning the uncertainty (Jones & Casulli 2015). Therefore, these different approaches are meant to support each other in order to understand entrepreneurial reasoning and decision making.

### 2.1 Effectuation and born globals

This chapter focuses on international entrepreneurial opportunities by covering Saravathy's (2001) effectuation theory and the born global phenomenon. These issues support the understanding of entrepreneurial opportunity recognition in international context (Chandra, Styles & Wilkinson 2009) because the effectuation theory explains a decision making logic without high level of predictability (Sarasvathy 2001) and born globals are in many cases firms that lack the predictability related to their future (Gabrielsson & Gabrielsson 2013). However, this chapter includes also more specific evaluation related the connection between effectuation approach and born globals because in some cases born globals do not follow the effectuation theory (Nummela, Saarenketo, Jokela & Loane 2014).

#### 2.1.1 Effectuation and causation approaches

According to Sarasvathy (2001), causation and effectuation processes can explain two different ways to achieve a certain outcome. The causation process tends to include a given

outcome which should be achieved by finding the appropriate means. However, the effectuation process considers the target achieving as the converse process; there are given means which should be exploited to achieve some of the multiple outcomes. Therefore, the effectuation process includes a broader target description than the causation process, in order to allow less monitored effect. The problem of creation is central in causation and effectuation approaches, while causation logic solves this problem by analyzing existing knowledge, effectuation logic rather creates new with contingencies that are available. (Sarasvathy 2001) Moreover, the creation of new is, particularly, in the center of entrepreneurial opportunities, and how they can be found (Shane & Venkatamaran 2000). Therefore, the function of effectuation and causation theories is to shed on why certain people find entrepreneurial opportunities by providing logics that explain how people create new opportunities (Shane & Venkatamaran 2000; Sarasvathy 2001).

When it comes to the business context, the causation marketing can be understood as a systematic market research process, which includes, for instance analyzing market opportunities, selecting a market segment and designing a market strategy. The effectuation marketing could consider the exploitation of existing contacts as a marketing tool related to possible partners or customers which can limit the amount of work related to the marketing research. (Sarasvathy 2001) Therefore, the effectuation theory considers the idea from design school strategists; *“find out what you are good at and match it with what the world wants and needs”* (Minzberg 1990). Design school also emphasizes the dynamic nature of strategy when the strategy can be redesigned based on the experiences and failures faced in its implementation stage. (Minzberg 1990; Sarasvathy 2001) However, the design school differs from effectuation theory as it emphasizes a predictability in terms of creating a simple first strategy (Minzberg 1990), when the effectuation theory does not (Sarasvathy 2001). In effectuation an entrepreneur’s end product is unpredictable, whereas in causation the end product is determined based on the initial opportunity. Moreover, the fundamental difference between causation and effectuation approaches is that causation process follows expected return as a decision basis, whereas effectuation process is based on the idea of affordable losses. (Read & Sarasvathy 2005) The idea of affordable losses means that there should be some level of risk,

which should not be crossed, while the expected returns work as a locked outcome predictor that defines the viability of the investment (Sarasvathy et al. 1998).

**Table 1.** Characteristics of causation and effectuation approaches, Sarasvathy 2001; Read & Sarasvathy 2005.

<b>Theories</b>	<b>Causation approach</b>	<b>Effectuation approach</b>
<b>Competition advantage</b>	Systematic opportunity creation	Existing means
<b>Future is based on</b>	Expected returns	Affordable losses
<b>Product</b>	Strictly defined	Unpredictable
<b>Selection of</b>	Means	Outcomes
<b>Exploitation of existing</b>	Knowledge	Contingencies

### 2.1.2 Effectuation and SMEs' internationalization

Read and Sarasvathy (2005) propose that as the effectuation orientated entrepreneur has achieved a growth phase of its business, the relevance of effectuation processes decreases. Therefore, the growth of the firm has an effect to the firm's tendency to move more towards causation-based activities (Read & Sarasvathy 2005). This can be partly related to the amount of a company's internal uncertainty, which may decrease after the company's growth (Yang & Gabrielsson 2017). The same phenomenon appears to occur with business networks. According to Hite and Hesterly (2001) business networks in many cases start with identity-based functions where personal relationships affect to the financial decisions in the network. These networks have often relatively small-size structures and the relationships are strong between different partners. When the network becomes larger in terms of partners and resources, it often evolves to a calculative network. The structure of the calculative networks is often more based on market areas than social ties. These networks are also managed inten-

tionally whereas identity-based networks are more often path-dependent structures. As an advantage, calculative networks have broader resources and better possibilities to handle an uncertainty in the market. (Hite & Hesterly 2001) Therefore, effectuation process tends to be rather followed by SMEs than MNCs and rather by identity-based networks than calculative ones.

According to Read and Sarasvathy (2005) the effectuation theory can also explain the difference between novice and expert entrepreneurs. The novice entrepreneurs tend to rely on causal reasoning when the expert entrepreneurs rather base their actions on effectual behavior (Read & Sarasvathy 2005). Particularly, expert entrepreneurs tend to recover large number of patterns from their long-term memory similar to the new problem/situation (Maitland & Sammartino 2015a). Besides, entrepreneurs with a specific knowledge/experience reject the use of predictive information because they rather filter information to evaluate it compared to the patterns of their previous experiences. I.e. expert entrepreneurs avoid receiving information in the given form, particularly, when it comes to the predictions. Also, successful firms tend to be established as a consequence of an effective action which have been replaced with causal action during the growth phase. (Sarasvathy & Read 2005)

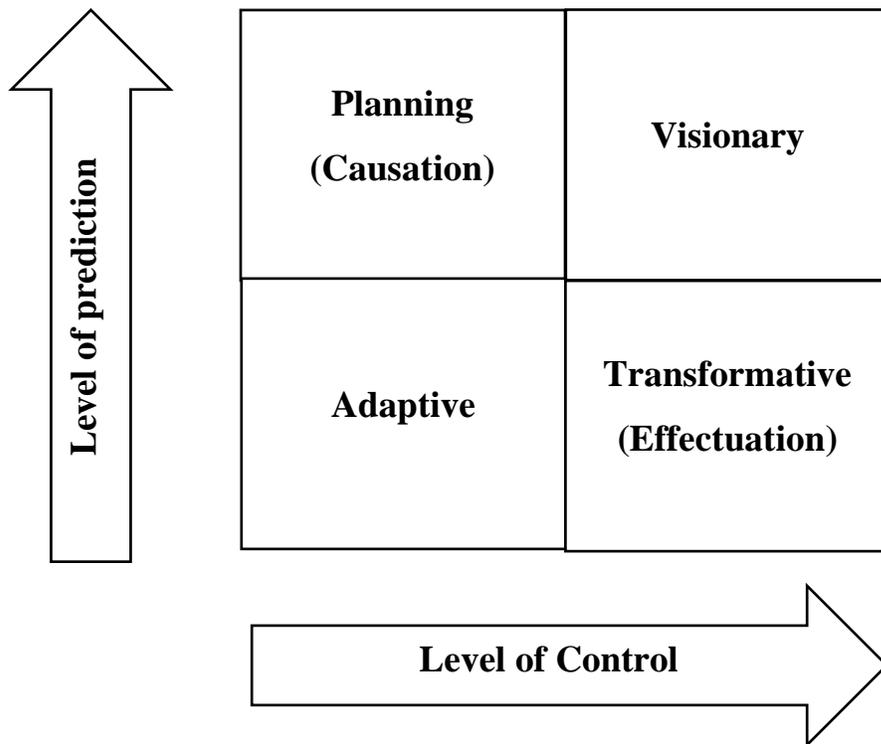
Galkina and Chetty (2015) argue that entrepreneurs do not only tend to follow effectuation process during the early stages of their business, but they rather follow it during higher uncertainty level events. Such uncertainty may occur, for instance during the international growth of SME by joining a network. This suggests that, particularly, SMEs tend to rather base their foreign market entry on opportunities related to effectual networks than the specific foreign market goals. This observation points out the unintentional side of the internationalization process in order to extend the traditional Uppsala model approach. (Galkina & Chetty 2015) The original Uppsala model emphasized market commitment and market knowledge to be highly correlated to the foreign market risk (Johanson & Vahlne 1977), when the updated version highlighted the role of business networks in order to overcome the risk related to internationalization process (Johanson & Vahlne 2009).

Moreover, the effectuation and causation processes has been researched in internationalization context in order to examine their influence, particularly, related to decision making of entrepreneurs. For example, Chetty, Ojala and Leppäaho (2015) investigated causation and effectuation approaches in Finnish and New Zealander entrepreneurial firms and they found out that when planning the strategy Finnish companies tend to use causation approach more often whereas companies from New Zealand used effectuation approach more often. On the other hand, during the actual entry moment, firms from both countries tend to use effectuation approach more often than causation strategy (Chetty et al. 2015). Moreover, Nummela, Saarenketo, Jokela and Loane (2014) found that the amount of causation and effectuation approaches may differ during different time periods in the same firm. However, it is notable that effectuation appeared to be the dominant logic at the early stage of the companies' growth (Nummela et al. 2014). Generally, effectuation approach is more common for firms that are in the early stage of internationalization process, but many companies tend to use causation and effectuation approaches as alternatives to reach the best outcome (Sarasvathy 2001; Nummela et al. 2014; Chetty et al. 2015).

Daniel et al. (2015) stated that, particularly, small home-based online business entrepreneurs tend to use effectuation approach. This finding can be partly explained with the entrepreneurs' problem of limited access to the external funding, which forces the home-based online companies to rely on their existing recourses or partnerships advantages that indicates the low affordable loss approach. On the other hand, as the external investors require explicit financial plans in order to ensure their return of investment, effectuation process does not include such goal-orientated planning. (Daniel et al. 2015) Sarasvathy and Read (2005) suggest that effectual entrepreneurs and investors share little common ground due to different thinking logics. Therefore, effectuation-based decision-making logic often leads to a situation wherein the entrepreneurs exploit their network partners in order to survive financially, instead of relying on internal resources or bank loans (Gabrielsson & Gabrielsson 2013).

Related to this goal orientation issue, Figure 1 illustrates different approaches in opportunity creation based on Sarasvathy's, Dew's and Witbank's (2008) Starbucks example. Level of

prediction and level of control represents two variables that affect a company's opportunity creation. Planning and adaptive logics works as positioning strategies, wherein an entrepreneur considers markets to be uncontrollable, which can be responded by finding a market position. However, as planning logic focuses on making a long-term causal strategy based on positioning, adaptive logic rather emphasizes short-term plans because the future is not predictable. Such constructive logics as visionary and transformative approaches go beyond the frameworks of existing markets, while they rely on the idea of malleable markets without necessity to follow the markets. The difference between these two logics is that visionary approach relies on predictability by setting a long-term vision in order to redefine the markets, whereas transformative approach considers the markets to be unpredictable as this logic leaves more space for contingent interactions. In other words, transformative approach avoids by framing the future to a single vision, because the reality is more complex in terms of predictability. (Sarasvathy et al. 2008)



**Figure 1.** A matrix of prediction and control, adopted from Sarasvathy et al. 2008.

### 2.1.3 Born global phenomenon

SMEs that start the internationalization process in the early stage of their business are often called early internationalizing firms, born global firms or international new ventures (Knight & Cavusgil 2004; Weerawardena 2007; Andersson 2011; Sullivan Mort, Weerawardena & Liesch 2012). Gabrielsson and Gabrielsson (2013) state that international new ventures tend to be identified based on such aspects as unpredictable future, ambiguity of goals and enactment, which means that organization environment is influenced by decisions. The same aspects are also in the center of effectuation process as it emphasizes uncertain environment and broad future goals (Sarasvathy 2001). The more exact definition of a born global is often based on exporting percent and the earliness of international activities. Therefore, born global should have international activities within three years of its inception with 25 export percent of its total sales. (Sinkovics et al. 2013) However, there are also more flexible definitions in the literature that allow even a ten-year domestic period before international activities and some studies require lower export percent than 25% (Eurofound 2012). For instance, Knight and Liesch criticize (2016) the born global limitation based on 25 percent export rate and three year-time horizon, because these requirements do not support the knowledge related to firms' early-stage uncertainty. Moreover, a global-mindset has been seen as one of the key elements related to born global entrepreneurs as it means that the entrepreneur focuses on value creation based on foreign markets at the early stage of company's life cycle (Knight & Cavusgil 2004; Poole 2012).

According to Knight and Cavusgil (2004) the born global phenomenon is partly the result of "*increasing homogenization of buyer preferences*", which is also the cause and the result of globalization. This makes it easier for companies to sell products with similar attributes to all over the world. The other important driver of the born global phenomenon is the development of information and communication technologies. (Knight & Cavusgil 2004) It has been argued that, for instance Internet has increased the internationalization opportunities for born globals, particularly, since it reduces the costs of foreign operations. The cost reductions are partly the result of the possibility to be in the market without physical attendance, but the

Internet also puts the domestic and foreign firms on the same level because Internet makes firms stateless. (Arenius, Sasi & Gabrielsson 2005) Moreover, Etemad (2004) highlights the trend wherein the regional blocks have become more relevant business areas than single states. For example, the foundation of EU has removed the trading barriers in Europe, by enabling the idea of transnational market area which have redefined the meaning of domestic market and forcing even small companies to see them business from international perspective (Etemad 2004). In other words, the liberalization of international markets has redefined the circumstances for international business (Etemad 2004; Knight & Liesch 2016), which have created possibilities for such firms as born globals.

According to Knight and Liesch (2016) born global phenomenon can be interpreted to be part of the trend, wherein international borders has barely an impact on business context. Instead, the focus will be more on different cultural, legal and economical environments that are not limited based on specific national borders. Therefore, born globals cannot solely be identified as companies that are doing business in international markets, but they can be also seen as companies that identify international markets as their domestic markets. (Knight & Liesch 2016) This occurs partly since born globals are located to high-tech sector in many cases which is international by its nature (Eurofound 2012; Schweizer et al. 2013). However, born globals exist also in more traditional business sectors in which companies often exploit location advantages in order to go global by starting with the closest markets. (Eurofound 2012) Therefore, it cannot be said that the original Uppsala model would be totally out of date when it comes to born globals (Johanson & Vahlne 1977).

#### 2.1.4 Born globals from causation & effectuation perspective

Born globals are in many cases small and micro companies because young companies do not often have remarkable amount of resources (Knight & Kavusgil 2004; Eurofound 2012; Knight & Liesch 2016; Kraus et al. 2017). When the Uppsala model emphasizes a large resource base or network position as prerequisites for large scale international business operations (Johanson & Vahlne 1977, 2009), such small companies as born globals often rely on

the latter prerequisite (Johanson & Vahlne 2009; Knight & Liesch 2016). Schweizer, Johanson and Vahlne (2010) concluded that causation approach causes bigger losses than effectuation approach if the business fails because effectuation approach is a less expensive way to bring products to the market. This interpretation may be based on the fact that effectuation approach exploits existing means instead of trying to predict outcomes, for example in terms of time taking marketing researches and costly marketing campaigns (Sarasvathy 2001). Moreover, as effectuation approach is based on affordable losses, it also limits the risks of the future (Sarasvathy et al. 1998; Sarasvathy 2001). Therefore, it makes sense that born globals with their limited resources may try to avoid causation approach due to its risks and resource requirements.

Moreover, Sullivan Mort et al. (2012) claim that born globals tend to rely on effectuation logic in their early internationalization because it enables the effective exploitation of external and internal resources. In other words, effectuation approach relies on exploiting such external support as networks, borrowing resources or outsourcing activities, which have a crucial role for small born globals. Besides, effectuation logic allows born globals to exploit its internal knowledge or resources in an extemporaneous way by creating non-predictable competitive advantage. This can be the result of flexibility that can enable the company to go above its weight. The effectuation approach also matches with born globals' needs to create new markets and products instead of trying to increase the existing market share of products. (Sullivan Mort et al. 2012) As Sarasvathy (2001) states; "*Causation processes are excellent at exploiting knowledge. Effectuation processes are excellent at exploiting contingencies.*", it can be interpreted that the latter is relevant in order to create new products and markets (Sarasvathy 2001; Sarasvathy & Dew 2013). Therefore, opportunity creation requires rather testing combinations of existing expertise and exploiting contingencies or unexpected events in the right time than relying solely on the knowledge of existing opportunities (Mort et al. 2012). It could be interpreted that effectuation is important reasoning measure for born globals because it provides an alternative way to compete in traditional resource orientated business environment.

On the other hand, Weerawardena (2007) suggests that so called “*dynamic capabilities*” may partly explain the rapid internationalization of born globals. These capabilities include owner’s/manager’s international orientation, market-based learning, internal learning, networking abilities, marketing skills and product knowledge advantages. It has been suggested that these capabilities create international possibilities, particularly, for small firms. Therefore, the fast-paced internationalization can be also achieved with strategic development of dynamic capabilities. (Weerawardena 2007) As effectuation theory is focusing on existing means that can be capabilities, the dynamic capabilities rather refer on causation theory, particularly, while they include the idea of strategic development (Sarasvathy 2001). In other words, it should not be assumed that born globals necessary follow effectuation approach in all cases. This observation is also made by Nummela et al. (2014) who noticed that born globals may change their decision making towards causation logic during the later years, because the founders in some cases start to specialize to strategic decision making, while the company has grown. Moreover, Yang and Gabrielsson (2017) found that some born globals in high-tech industry are using causation approach in their international marketing decisions. This shows that there are exceptions to assumptions signing that effectuation considers especially companies in advanced technology industries (Schweizer et al. 2010).

#### 2.1.5 Entrepreneurial opportunity recognition

According to Shane and Venkataraman (2000) entrepreneurial opportunities are a central prerequisite for all entrepreneurship forms, which means that the companies need to find a specific way to add value through their offering. Kirzner (1997) states that these opportunities are often the result of “*earlier entrepreneurial errors*”, which create space for new actors who may, for example find a new and better way to allocate their resources in certain industry. Particularly, earlier market experience helps an entrepreneur to interpret, whether a potential market opportunity is a mistake or something to be adopted (Kirzner 1997). This way, a prior knowledge has a relevant role by supporting the comparison between existing knowledge to new problems in opportunity recognition (Kraus et al. 2017). In addition to the useful prior knowledge for entrepreneurship, a great amount of financial capital and strong

social ties are key factors for opportunity exploitation (Shane & Venkataraman 2000). Generally, the idea of these opportunity discoveries is that entrepreneurs find a profit potential from the markets by scanning their environment with the combination of open-minded attitude and their specific skills and experiences (Kirzner 1997; Shane & Venkataraman 2000). From the perfect competition perspective, entrepreneurial opportunity phenomenon only requires free market entry, while for example perfect market knowledge is not a mandatory prerequisite in terms of market equilibrium (Kirzner 1997). Therefore, it could be argued that, for example born globals with imperfect international market knowledge have managed to decrease the relevance of one of the perfect competition components due to their success (Williams 2003; Freeman, Hutchings & Chetty 2012; Kraus et al. 2017). Instead, their knowledge in many cases might be the unique and experimental knowledge that was mentioned by Kirzner (1997); “*The knowledge gained through the discovery of the market refers to "unthought-of knowledge."*” In other words, this knowledge is not available for everyone in terms of perfect competition (Kirzner 1997).

Kraus et al. (2017) emphasized that, particularly, born globals have crucial disadvantages in terms of suitable human resources and financial capital assets, when it comes to a research of early life-cycle opportunities. Yang and Gabrielson (2017) in the similar vein observed that some born globals in high-tech industry sector have problems with access to finance as they are small and young companies with high-level of uncertainty. However, Chandra, Styles and Wilkinson (2009) found in their research that international entrepreneurial opportunities are rather the result of discovery than systemic research in firms that lack international experience. Therefore, entrepreneurs without international knowledge tend to exploit, for example their expertise, networks, technical knowledge and innovativeness in order to create ideal conditions for internationalization. In other words, these opportunities are first time ones, which are difficult to explain with incremental change and optimization factors. Rather, these opportunities are recognized based on cognitive capabilities that enable entrepreneurs to combine their existing means portfolio to new situations in international markets. (Chandra et al. 2009) This refers that such entrepreneurial firms as born globals tend to rather

use effectuation logic in their early opportunity recognition than systematic causal research methods (Sarasvathy 2001).

Entrepreneurial opportunity recognition has been also connected to entrepreneurial orientation, which represents ideal firm characteristics for new opportunities (Chandra et al. 2009). The characteristics of entrepreneurial orientation are innovativeness, risk taking, proactiveness, competitive aggressiveness and tendency to autonomous actions. The similarity of these different factors appears to be their ability to support, particularly, first-time opportunities in terms of early-mover and unexplored activities, while the competitive aggressiveness helps companies in high competition markets. (Lumpkin & Dess 1996) Entrepreneurial orientation has been often connected to international new ventures and born globals (Zhou, Barnes & Lu 2010; Gabrielsson & Gabrielsson 2013; Martin & Javalgi 2016) because it explains the high performance of these type of companies in costly international operations (Lumpkin & Dess 1996; Martin & Javalgi 2016) that may illustrate why some people/entrepreneurs discover entrepreneurial opportunities while others not (Shane & Venkataraman 2000). According to Schwens and Kabst (2011) particularly young technology firms tend to chase a quick international market entry in order to amortize their R&D expenses. This suggest that these firms have a pressure for proactive and aggressive competition to reach the first-mover advantages (Lumpkin & Dess 1996). On the other hand, when it comes to the young companies with radical technologies, the effective R&D stage as the requirement of sales is often difficult to reach (Karagozolu & Lindell 1998).

## 2.2 Sensemaking

Weick (1995: 4) states that sensemaking concept does not include a specific definition as many researchers have a different approach towards its meaning. Table 2 presents more detailed examples of different views for sensemaking phenomenon. Generally, sensemaking means clarifying the unknown stimuli by putting it into frameworks. However, it can be also seen as a tool for prediction or the issue that explains the phenomena in conflict with individual's assumptions that can be called surprises. Moreover, the sensemaking may consider

an interpretative process, wherein the environment has been scanned in order to find clarity in it or it may also mean rules and standards that have the role of sensemaking mechanisms, for example in organizational context. (Weick 1995: 4–5) Such ancient philosophers as Aristoteles, Heraclitus and Parmenides already exploited sensemaking in their thinking, while they tried to describe the existence of the world. The former two saw the existence to be based on water, soil, air and fire which represented fundamental elements of the world while Aristoteles emphasized categories in order to understand and make sense to the world. (Hernes & Maitlis 2010: 28) On the other hand, these definitions of the existence could be seen as interpretations, which is not exactly the same thing as sensemaking. According to Weick (1995: 6–7) the difference between these two concepts is that interpretation is rather a component of sensemaking than its synonym. For example, a researcher that faces an academical problem may try to interpret it to be able to reach a solution, but sensemaking includes also the process of discovering the problem. In other words, there would be no problem without making sense that it is the problem. (Weick 1995: 8–9) Therefore, the sensemaking has a more holistic meaning than the interpretation word

**Table 2.** Different approaches for sensemaking phenomenon.

Authors & year	Definition of sensemaking
Morine-Dersheimer (1987)	“... <i>informal theory of sensemaking: the ability to connect or integrate new within one’s own mental organization and to revise one’s thinking in the process.</i> ”
Weick (1995: 6)	“... <i>sensemaking is about such things as placement of items into frameworks, comprehending, redressing surprise, constructing meaning, interacting in pursuit of mutual understanding and patterning.</i> ”
Rasmussen, Madsen and Evangelista (2001)	“ <i>Sensemaking was especially important when trying to explain why the company was founded as a Born Global: Why did the founder see the new firm in international context?</i> ”
Hernes and Maitlis (2010: 29)	“ <i>In sensemaking literature it is emphasized how sensemaking is an ongoing activity underlying the process of organizing.</i> ”
Maitland and Sammartino (2015b)	(In internationalization of a firm) “... <i>decision-makers’ abilities to make sense of a location by identifying what information to look for, how to analyze it and its implications for the firm’s expansion.</i> ”

### 2.2.1 Entrepreneurial sensemaking

According to Baran and Scott (2010) “*Rather than delaying action, effective sensemaking results in the ability to quickly recognize environmental cues and anticipate team members’ actions and intentions, thereby creating the necessary structures for rapid-yet-mindful responses.*” This kind of sensemaking refers, particularly, to the so called “*high-reliability*”

*organizations*”, in which the environment includes high initial risks and high-level of ambiguity in terms of threads. For example, military organizations are often classified as high-reliability environments, while the survival of a single soldier requires a leadership that recognizes initial environmental treads. This kind of environments highlight the importance of existing knowledge and experience as well as the ability to adapt them in specific non-predictable situations in order to reduce the environmental ambiguity. (Baran & Scott 2010) In addition to military organizations, SME context may include the similar elements as high reliability organizations. When they are often characterized as the companies with limited resources (Calof 1994; Williams 2003), the decisions of SMEs include higher initial risks than in MNCs because they do not have large resource base softening the actual failure of their decisions (Johanson & Vahlne 1977; Calof 1994).

Teece (2007) presents that sensing opportunities includes scanning, creation, learning and interpretive activity. Furthermore, the idea of entrepreneurship can be seen as the creator of equilibrium which is called the Kirznerian view (Teece 2007). Kirzner states (1997) “*In equilibrium there is no scope for pure profit: there is simply nothing for entrepreneur to do.*” This means that if there is disequilibrium in the form of undiscovered opportunity in the market, entrepreneurship balances the market and the economy by seizing the opportunity. (Runde 1985; Kirzner 1997; Teece 2007) However, it is notable that market opportunities have a dynamic nature even in the most successful company cases and the strategies should also be developed. Therefore, companies that are too satisfied with their strategies and market information filters, may sometimes have the risk of locking themselves to the past success. In order to avoid this problem companies should rather sense the next big market opportunity than rely on analyzing and optimizing existing things. (Teece 2007) According to Weick (1995: 49–50, 55) sensemaking can occur by focusing on extracted cues, which provide improvement for reasoning environment and problems. These extracted cues tend to form a larger sense in individuals’ minds about possible events, which can be used, for example in order to notice major events and trends (Weick 1995: 50, 52). In addition, while the sense-making concept includes the idea of discovering problems or opportunities before interpreting them (Weick 1995: 8–9), it must include the idea of going beyond existing strategies

(Teece 2007). As a conclusion, it is not enough for an organization to be able to make sense related to their existing success factors, but it also needs to be alert of such external events as new trends in the market. This is particularly relevant in such entrepreneurial firms as born globals that may lack the national champion advantages, which means that they are not competing with price efficiency in the global market that is the result of domestic market success (Luo & Tung 2007; Eurofound 2012).

According to Bettiol, Di Maria and Finotto (2012) entrepreneurial sensemaking in SMEs means in many cases that the entrepreneur has a central role related to different organizational functions, which results that the entrepreneur is in a key role of giving frameworks to the organizational environment. Therefore, the entrepreneur provides these frameworks for different stakeholders in order to create value for the firm's concept. This can be crucial for so called opportunity creation, which means the entrepreneur gives a direction for an organization and decreases the uncertainty of this opportunity for the stakeholders in order to create a value based on the opportunity (Bettiol et al. 2012). It could be argued that this kind of sense-giving is an important part of the opportunity creation because it focuses on publishing the content of organizational sensemaking (Albu & Wehmeier 2014). Sense-giving in practice can be seen in visions, strategies, communications, storytelling and actions in organizational context as their intention is to provide transparency and predictability related to the state of future for different stakeholders (Albu & Wehmeier 2014; Watts et al. 2019). According to Žur (2015) opportunity creation differs from opportunity recognition by emphasizing new means instead of existing ones.

### 2.2.2 Sensemaking in internationalization

Rasmussen, Madsen and Evangelista (2001) argue that sensemaking helps explaining the existence of a specific born global. Therefore, it focuses on the founder's justification to see its business in international context. The sensemaking itself can be seen as the outcome of interactions and interpretations related to multiple events in an organization or individuals'

contacts to their environment. In other words, sensemaking considers individuals to be producers of the reality they face. The phenomenon also supports the construction of identity as the environment teaches to the sensemaker his definition of the self-concept. (Rasmussen et al. 2001) According to Watts, Steele and Mumford (2019) sensemaking has an important role of helping the followers to understand complex environment with predictability. Stories and vision are examples of sensemaking tools for followers, as they both tend to rationalize the future path. The former explains the cause-outcome links of the past events in order to predict future and the latter describes an idealized future state and the means to achieve it. (Watts et al. 2019) This kind of sensemaking refers, particularly, to causation theory, which emphasizes predictability based on preexisting goals and strategies (Sarasvathy 2001). Vallaster and De Chernatony argue (2005) that a clear vision has a remarkable role in terms of internal brand building, particularly, in global markets. The clear vision provides better chances for employees to translate the brand's promise into action in a complex multicultural environment (Vallaster & De Chernatony 2005). Moreover, Hart (1992) emphasizes the symbolic value of the vision in order to provide meaning and identity for employees of the company. Particularly, a long-term mission has an important role in organizations, which controls short term targets and inspires followers for achievements (Hart 1992). Although, Hart (1992) emphasizes that symbolic visions occur rather in large organization than SMEs, his idea of the command mode, wherein simple environment defines small companies, is in conflict especially with born globals. These companies tend to operate often in complex international environments, wherein, for example various knowledge, expertise and networks are needed. (Kraus et al. 2017; Reuber 2018)

However, Lund (2019) states that, particularly, in organizations with so called knowledge-workers, the definition of follower differs being closer to experts than the traditional follower image of inferior subject. In these organizations, the knowledge workers often have high autonomy related to their work, and the leaders may allow the followers more space, because the followers with an expertise in many cases have a better knowledge related to their job than the leaders. (Lund 2019) Moreover, according to Alvesson and Blom (2015) “*When people see themselves more as ‘non-followers’ (e.g. professionals, peers, co-workers) than*

*followers, there will be 'less leadership'.*” Related to this, followers in many cases may be the co-authors of organizational realities, which makes them part of the leadership (Blom & Alvesson 2014). In other words, it cannot be assumed that the followers today would be only in the role of receiving a certain strategy from the higher level, but they can be also creating it based on their actions. Therefore, the sensemaking is more complex phenomenon than the leaders just providing predictability to followers, especially in knowledge intense industries (Watts et al. 2019; Lund 2019).

Van Balen, Taracki and Sood (2018) state that sensemaking has also a remarkable role, when it comes to the external finance. Therefore, for example a company’s disruptive vision that aims changing the current markets helps companies to receive funding especially in the early stage of the business, because it clarifies how the company will increase the value of the invested capital (Van Balen et al. 2018). This kind of vision has similar elements as the visionary approach in Sarasvathy’s et al. (2008) matrix on page 20, because the both logics aim on changing the existing markets with predictability. Navis and Clynn (2011) suggest that, particularly, among new business ventures sensemaking supports the plausibility which is needed in order to convince the investors. The role of sensemaking is to decrease the ambiguity of the new business or markets without examples of already existing business solutions. (Navis & Clynn 2011) Moreover, international new ventures can be often characterized with uncertain future and ambiguity towards goals (Gabrielsson & Gabrielsson 2013). However, according to Sarasvathy, Herbert and Lave (1998) investment/loan bankers and entrepreneurs tend to have different approach to financial risks. As bankers avoid high personal responsibility related to risks and emphasize target outcomes, entrepreneurs allow higher personal risk responsibility and they accept risks in the given form by controlling the outcomes. In other words, it is important for bankers that they have the knowledge of expected returns, when the entrepreneurs believe that the expected returns may change depending on the efforts in the future. (Sarasvathy et al. 1998) This suggest that the fundamental difference between investors’ and entrepreneurs’ risk orientation may inhibit the external finance of the entrepreneurs.

According to Maitland and Sammartino (2015b) sensemaking in internationalization context means, for example location related information selection, analysis and adaptation to the firm's expansion. This kind of approach reminds the causation logic, which also emphasizes systematic selection and research of the target market (Sarasvathy 2001). On the other hand, in the core of sensemaking is also an individual's capability to simplify complex environment based on his stored knowledge from his lifetime (Sammartino & Maitland 2015b). As Maitland and Sammartino (2015b) investigated MNE environment in their study in order to explain a single manager's individual influence on an organization's decisions, they found mental models to be influencing on the decision-making processes. Therefore, sensemaking may not always occur through systematic causal activities, but it can also occur based on such individual's cognitive reasoning types as analogies and heuristics (Maitland & Sammartino 2015a). However, these mental models can be argued to be limited to an individual and its cognitive capabilities (Maitland Sammartino 2015a), whereas sensemaking phenomenon includes also the sense-giving perspective, which includes the sensemaking towards others (Albu & Wehmeier 2014).

### 2.2.3 Sensemaking in effectuation process

When it comes to the internationalization strategies, Rasmussen et al. (2001) argue that born globals do not necessarily have specific international strategy, but it can be rather the outcome of their business opportunities as domestic strategy would not provide sustainable business. Besides, the existing business networks are not always a prerequisite for the successful internationalization. Therefore, the sensemaking and the effectuation-type path may have a remarkable role in born globals' exploitation of business opportunities. (Rasmussen et al. 2001) However, as the nature of effectuation process considers ambiguity towards goals/outcomes (Sarasvathy 2001), it is not clear how companies with effectuation characteristics are able to rationalize their vision in terms of sensemaking.

As Jones and Li (2017) investigated sensemaking practices in an effectuation family business, they found that two young founders were able to use their effectuation process as an

advantage of sensemaking. The online retailer business of two brothers was developed based on the younger brother's selling hobby in ebay and the older brother's ability to create business relations with suppliers. When the entrepreneurs were formalizing the business, the older brother was able to provide a plausible story for their Chinese suppliers based on the younger brother's ability to make profits in online markets. Therefore, the experimental learning had a crucial role in sensemaking process because the founders were able to commercialize their non-goal-orientated capabilities and they also used their father's long business experience to in the international business negotiations as their advantage. (Jones & Li 2017) According to Peiris, Akoorie and Sinha (2013), learning, knowledge and capabilities are the key elements for entrepreneurs in order to exploit existing international market opportunities, which is also in line with the brothers' online business experiences (Jones & Li 2017). As the effectuation theory emphasizes existing means and effectual learning (Sarasvathy 2001), it may provide a way to understand entrepreneurs succession components. However, it can be also argued that the brothers' business was made sense from the retrospective view (Weick 1995: 24; Jones & Li 2017). In other words, the view is based on the idea that people know only what they have done only after they have done something (Weick 1995: 24). This leads to problems, while people tend to remember the past events to be more determined than they actually were at the time of the events. (Weick 1995: 28) Therefore, effectuation theory may simplify the reality, particularly, in the brothers' business example in order to create a plausible story from the past events (Jones & Li 2017; Sarasvathy 2001).

Sensemaking from enacting perspective includes the idea of environment creation based on activities and decisions. For example, referees in a football game are creating the regulation environment based on their decisions in various situations that include the possibility for interpretation differences. Therefore, enactive sensemaking means that people create their environment with their actions and at the same time they are creating environmental opportunities and constrains for themselves and the others. (Weick 1995: 30–31) Bhowmick (2015) states that effectuation approach and enactment work as complementary logics in entrepreneur actions. The role of enactment is to enable prospective actions that have been used in

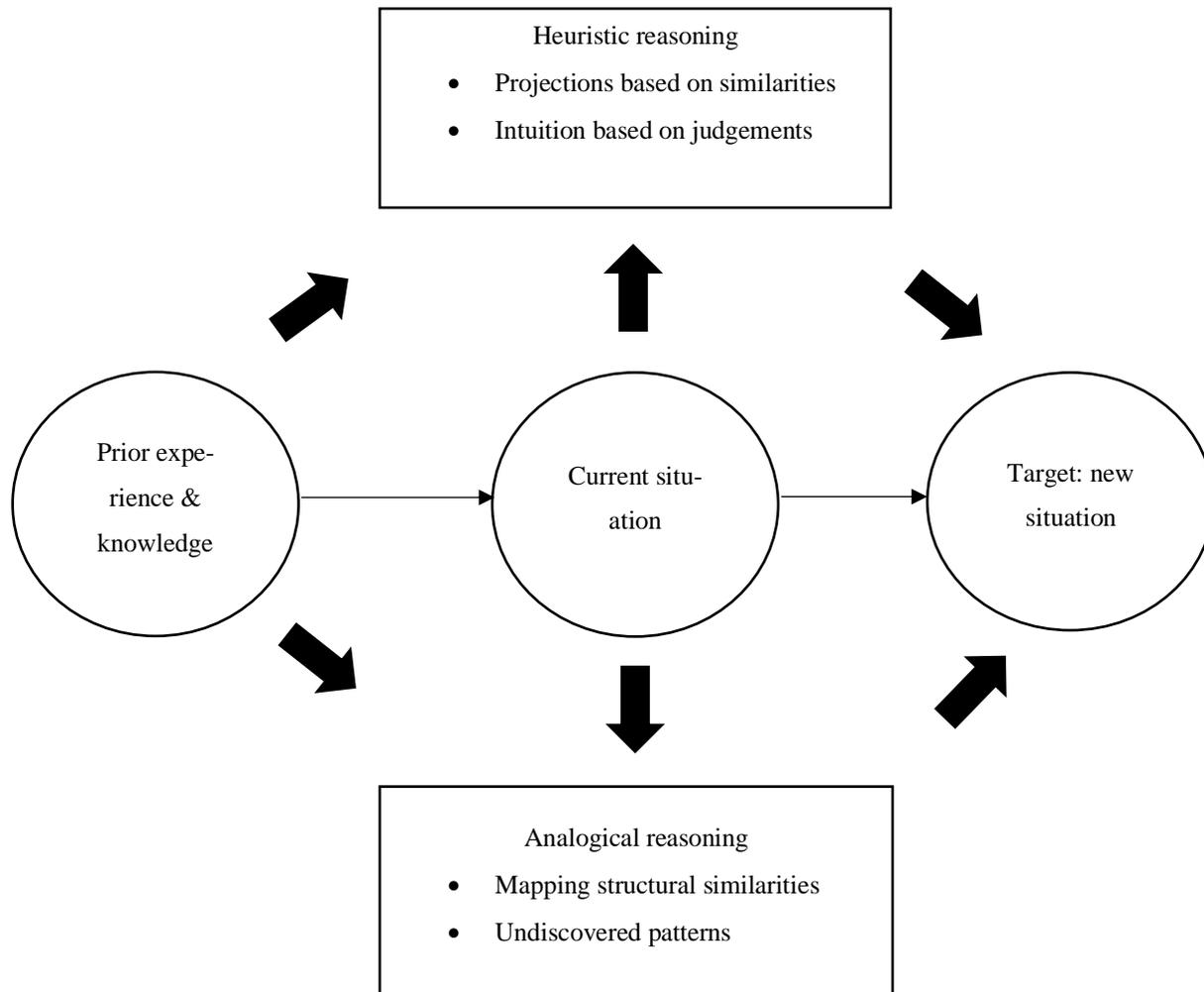
order to create opportunities, while the effectuation theory emphasis the control of these opportunities in terms of affordable losses. In other words, without enactment there would be very limited opportunities for entrepreneurs but without effectuation logic the opportunities would not be controlled. The difference between these two non-causal concepts is related to resource dependency; effectuation theory relies on existing resources whereas enactment is resource independent logic because it rather focuses on actions. (Bhowmick 2015)

### 2.3 Heuristic and analogical reasonings in international business context

The term heuristic can be understood as the logic that seeks solutions based on simple rules of thumb approach. It is often rather persuasive than logically compelling as it includes only limited amount of data while reaching to a decision or conclusion. However, due to the amount of data, this logic often reaches to the conclusions faster than more analytical logics. (Rozoff 1964) Heuristics in logical reasoning includes surviving in environment by exploiting its structures that has been spotted by mind. This way individuals may in terms of bounded rationality to use cues related to different structures in order to be successful in different environments with limited time. (Manktelow & Chung 2004: 28) Moreover, Evans (2006) states following about heuristic reasoning; *“Broadly, it seems that preconscious heuristic processes both focus our attention on selective aspects of presented information and rapidly retrieve and apply relevant prior knowledge and belief.”* and *“In other cases, people may use the analytic system actively to inhibit default representations and responses cued by the heuristic system and to engage in conscious strategic thinking.”* In other words, heuristic reasoning processes appears to be the pre-stage before more analytic reasoning processes (Evans 2006), for example in situations, where the individual have limited pre-knowledge or earlier involvement to a specific task in terms of bounded rationality (Evans 2006; McClary & Talanquer 2011). Therefore, transformation towards more analytical reasoning models provides a possibility to inhibit the heuristic bias, although it takes more time than heuristic reasoning. (Evans 2006)

According to Lahiri (2000: 1) the term analogy considers similar elements of proportional models in mathematics. For instance, two triangles that have the same distance relations provide information from each other because their proportionality can be used in order to get undiscovered information. Therefore, the similar analogy of the triangles provides an opportunity to use existing knowledge of the distances in order to discover a new distance without a measuring activity. (Lahiri 2000: 1) Moreover, the analogy in logic is based on an assumption; *“if things have some similar attributes, their other attributes will be similar”* (Lahiri 2000: 2). An example of this kind of logic can be seen in Natural History between different organism species when the similar structures of species have helped concluding evolutionary closeness of different species. For example, wings and tails show similar analogy between two species regardless their other attributes. (Lahiri 2000: 3) These analogical similarities lead to a categorization of different units. Analogical reasoning has been also used as a component of intelligence test when they may include such verbal problems as “foot is to leg as arm is to what?”. (Gentner & Holyoak 1997) This suggest that analogical reasoning has been somewhat appreciated when it comes to the general intelligence.

Jones and Casulli (2014) investigated heuristics and analogical reasoning in international entrepreneurship context in order to understand international entrepreneurs’ behavior. According to them individual’s experience in a firm has a remarkable effect on reasoning, as the experienced situations are compared to the new situations. In business the difference between heuristics and analogical reasoning is related to the usage of existing experience; when heuristics reasoning emphasizes intuition and deduction-based judgements, analogical reasoning is more systematic process wherein interfaces have been found based on mapped experiences with inductive logic. The former logic tends to rely on projections related to similarities in different situations, whereas the latter focuses more on building undiscovered abstract patterns based on multiple of experiences. (Jones & Casulli 2014).



**Figure 2.** The difference between heuristic and analogical reasonings, adopted from Jones & Casulli 2014.

### 2.3.1 Examples of heuristic reasoning

Cummings (2014) defines such different heuristic reasoning types as argument from ignorance and authority. The former aims at making the judgement based on the lack of evidence towards a specific assumption/hypothesis; for example, if there are no evidences supporting the existence of life outside Earth, the conclusion based on ignorance reasoning would be: there are no life outside Earth. Therefore, ignorance based reasoning includes; “*A is not*

*known to be true” to the conclusion “A is false”*”. Instead, the argument from authority refers to a specific expertise of an individual which can be used in order to increase legitimacy for the claims related to the expertise. The individual’s expertise can be also exploited by a third person, who may refer to expert’s statement about the issue. Impartiality and objectivity are often seen as the requirements for argument based on authority which may rely on acknowledged position such as professional standing or academic qualification. (Cummings 2014) An example of authority-based heuristics could be a thesis process, wherein a writer refers to narrowed number of researchers with academic degrees in order to support his findings. Moreover, Greening, Dollinger and Pitz (1996) define such heuristic reasoning types as availability and simulation. Availability heuristic means that an individual relies on his personal experience as a standard which limits the decision/behavior in terms of individual knowledge capacity. Therefore, only the information available in the individuals mind will be exploited by passing external information sources. The simulation heuristic in the similar way considers the exploitation of individuals’ knowledge and experience but it emphasizes the experience entity of a certain event more than availability heuristic. Therefore, the future event/result will be mentally simulated based on previous events. For example, an individual may try to predict rain based on his experience of the actual raining process by discovering pre-raining details. (Greening et al. 1996)

The similar element for these different heuristic reasoning types above appears to be the tendency to limit the decision/behavior based on narrowed experiences or evidences of the reality. Therefore, heuristic logics enable efficiency which is created by skipping some of the relevant information (Rozoff 1964; Katapodi, Facione, Humphreys & Dodd 2005). This kind of efficiency is often crucial when it comes to such companies as INVs, SMEs or born globals with limited resources and time (Williams 2003; Kuuluvainen 2011; Gabrielsson & Gabrielsson 2013). Moreover, According to Evans (2006) all decision making includes some level of heuristic thinking in terms of bounded rationality, because theoretically the decision optimization in the real world would lead on being *“forever lost in thought”*. Therefore, the exploitation of effective heuristic processes can be seen as the factor, which actually makes humans intelligent (Evans 2006).

Heuristic reasoning, particularly if it is based on intuition, has been criticized due to its tendency to rely on biases in decision making (De Neus & Feremans 2012; Zhao & Chen 2014). Zhao and Chen (2014) classify three stages of biases in the reasoning process; storage, monitoring and inhibition. If the biases are the result of limited knowledge about the decision issue, it is so called storage failure. Bias in monitoring stages are related to misinterpretation between the stored knowledge and actual decision/behavior in a situation which leads to the passing of the useful knowledge. The inhibition stage failure means that a reasoner has the needed knowledge for the decision and understanding of its usefulness in a situation but due to motivational or cognitive obstacles the biases will be followed. (Zhao & Chen 2014) Okręglicka, Gorzeń-Mitka and Ogorean (2015) argue managers of SMEs to be rarely embracing complexity related to the solutions of their works. This is, particularly, a challenge in the global context as the level of complexity arises compared to domestic environment and it becomes more difficult knowing the whole and the coherent environments. Therefore, the quality of decision making may be compromised if the manager is not aware of the risks related to the complex environments. (Okręglicka et al. 2015) This refers to the possibility that managers of INVs or born globals may have challenges with reasoning biases (Zhao & Chen 2014). As the managers of international SMEs tend to rely on overoptimism in their decision (Okręglicka 2015), it may be partly the result of overconfidence caused by heuristic biases (Jones & Casulli 2014). According to Jones & Casulli (2014) heuristic reasoning “*simplifies and provides shortcuts in decision-making processes*”, which causes savings in time but also the lack of accuracy in decisions. In the same way small entrepreneurs tend to rely on simple but unique strategies despite the environmental complexity (Okręglicka 2015), which refers to the importance of investigating heuristics among INVs and born globals.

### 2.3.2 Structure mapping theory and scripts

A structure mapping theory relies on the hypothesis about people tending to prefer relational similarities over superficial matches. The theory holds in an idea of relation pattern that can be spotted by individual using commonalities of abstract structures. In order to avoid spotting

any kind of commonalities between two units, a human mind tends to achieve systematic line by connecting the similarities to the larger structure of relations. An example of a deeper structure mapping is a comparison between solar system and atoms; although these two objects have many massive dissimilarities (e.g. size, temperature, amount of energy), the commonality is based on similar relations in structure. The mapping is formed as the result of the fact that atoms and solar system both have nuclear/centrum which has been surrounded by revolving objects. (Bach 2011) Abelson (1981) raises up an idea of scrips that are defining individuals' mundane behavior based on different knowledge structures. An example of the scrip can be seen in restaurants, wherein the specific scrip defines multiple restaurant events like receiving the menu, ordering a meal and paying the bill. This kind of script provides predictability for the customer and the waitress in the restaurant. However, all the scrips do not have equal meanings, when so called metascripts have higher level of abstraction than in ordinary scrips. When it comes to the restaurant example, the metascript could include the knowledge related to having a meal activity (e.g. at home, in the restaurant or in the nature), whereas script could include the events in a typical Chinese restaurant. (Abelson 1981) Particularly, the idea of metascripts refers to the similar analogy of different events, for example between eating in a sushi restaurant and at home. Although, these events have often such dissimilarities as self-made/chef-made and the food has been paid beforehand/afterwards, the deeper observation of the different scrips show a structural similarities related to the similar order of the major activities; waiting for food/making the food, eating and washing the dishes/leaving the dishes to be washed. (Bach 2011; Abelson 1981) Structure mapping theory and scrips both include an idea of analogies that can fill information gaps, for example while reasoning a decision-making process (Abelson 1981; Lahiri 2000: 1; Bach 2011; Jones Casulli 2014).

An example of scrip related reasoning in international business context can be seen in international business negotiations. The negotiation between different parties includes often such stages as preparation, information exchange, solution seeking and concession management. It is notable that both parties tend to follow these stages as a general script, although they

tend to improvise their scripts. Therefore, it cannot be said whether a certain party will emphasize equally the different stages of negotiation, but the different level of emphasis is determined based on company's preferences. (Fells, Rogers, Prowse & Ott 2015) According to Minzberg and Lampel (1999), knowledge structure mapping can be an important part of strategy formation for entrepreneurs. This observation has been made by categorizing so called cognitive school of strategy creation, wherein mental models are in the center of strategy creation (Minzberg & Lampel 1999). However, there are few studies related to structure mapping in international business context.

### 2.3.3 Heuristic and analogical sensemaking

Morine-Dershimer (1987) states that, for example inductive and deductive logics are examples of sensemaking phenomenon, which considers connecting the new ideas to existing awareness. This kind of definition is close to heuristic and analogical reasoning because they both can be exploited in order to evaluate existing knowledge in comparison to the new one (Jones & Casulli 2014). Taking also into consideration that inductive and deductive logics are also relevant parts of heuristic and analogical reasonings (Jones & Casulli 2014), Morine-Dershimer's (1987) cognitive approach to the sensemaking definition suggests that analogical and heuristic are sensemaking forms. Moreover, heuristic and analogical reasoning can be seen as tools of predictability for an individual in terms of sensemaking because they include predictable logics (Weick 1995: 4–5; Jones & Casulli 2014). Therefore, heuristic and analogical logics makes sense for an individual, but as they include the exploitation of individual knowledge (Jones & Casulli 2014), they may not at least directly make sense for others in terms of sense-giving (Albu & Wehmeier 2014).

According to Maitland and Sammartino (2015a) heuristic reasoning have an important role of making sense to a complex environment by relying on the existing knowledge (e.g. education, career and life experiences), instead of trying to catch all the information available for the situation. Based on the memories of similar experiences, heuristic reasoners tend to make initial decision rules about information they need in a new situation. This is often an

effective way to make decisions in complex international markets, where the more analytic methods would take relatively much time. Sensemaking through analogical reasoning considers also memory exploitation, but it emphasizes recovering structure of similar analogous problem while facing a new decision. It is remarkable in analogical reasoning that the decision maker has a rich memory base related to similarities of the current problem or the decision may be based on low accuracy. (Maitland & Sammartino 2015a) In international business context, this could mean that entrepreneurs lacking the location specific knowledge are struggling with the foreign customers, suppliers and regulations because they do not have knowledge of similar experience (Maitland & Sammartino 2015b). This refers that particularly expert entrepreneurs have better premises for analogical reasoning since they tend to have large memory base related to their expertise knowledge as the result of continuous efforts and experimental learning (Read & Sarasvathy 2005). Therefore, the large amount of structure related to the expertise area should provide better accuracy for experts to map similar structures of various of problems.

As effectuation-based entrepreneurs tend to focus on their existing means instead of strategic analyses (Sarasvathy 2001), their reasoning reminds heuristic sensemaking because all the relevant information will not be scanned (Maitland & Sammartino 2015). In effectuation theory, particularly, the knowledge related to external means will not be researched in a company, because an entrepreneur relies on availability heuristics (Sarasvathy 2001; Greening et al. 1996). Therefore, the manager of the company makes sense relying on his/her experiences without considering all the possible options available for the situation (Greening et al. 1996; Maitland & Sammartino 2015). In other words, the manager is focusing on what are the existing means for the business by passing the possible means that can be discovered as the result of market analyses (Sarasvathy 2001). On the other hand, effectuation could also mean ignorance heuristics, if the entrepreneur makes, due to lack of evidences, a judgement about ignoring alternative solutions that are not based on experiences (Cummings 2014).

According to Bingham and Kahl (2013) firms tend to face multiple analogies while they are trying to understand new innovations, for example related to technologies. The decision of

the suitable analogy is often challenging because requires a judgment related to new categories that include unknown elements. In these situations, entrepreneurs often choose the analogies that have better matches with their earlier experience/solutions. (Bingham & Kahl 2013) Weick (1995: 91) states that individuals tend to rely on sensemaking, particularly, in the situation with high level of ambiguity. These situations include often high amount of possible interpretations and the lack of causal logic, which results the individual's confusion (Weick 1995 91–92). To be able to decrease the ambiguity, managers of the organizations should increase such informal activities as face-to-face conversations and meetings that include more cues for individuals than formal information (Weick 1995: 99). This suggests that sensemaking has a crucial role in organizational context, when it comes to the choice of suitable analogies in non-causal issues. However, it could be argued that in in these cases the managers are reasoning these analogies and the communication is the actual sense-giving tool instead of analogical reasoning (Albu & Wehmeier 2014) because this kind of reasoning type is depended on individual's knowledge base (Jones & Casulli 2014).

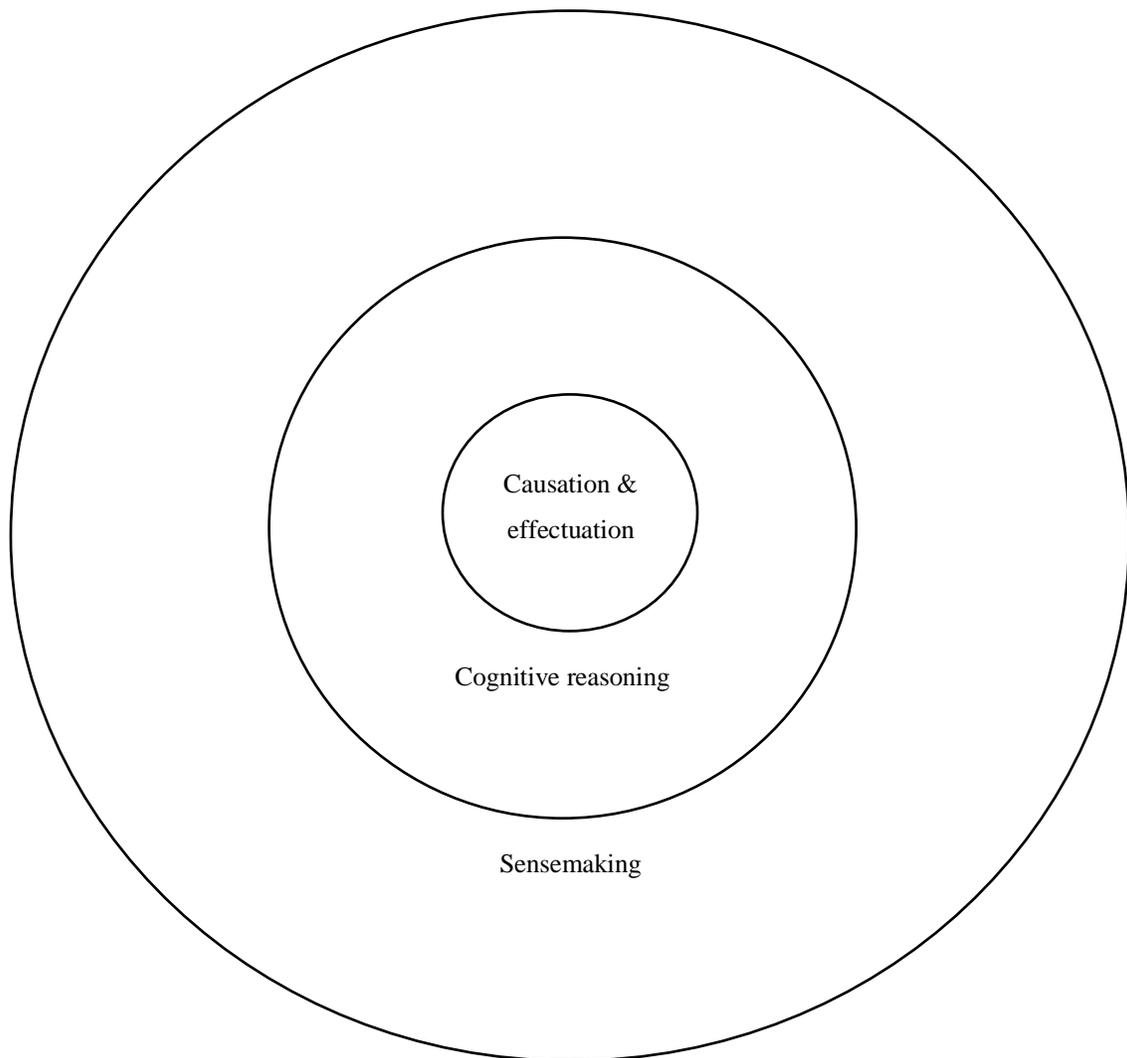
**Table 3.** Elements of heuristic and analogical reasonings.

<b>Heuristic reasoning</b>	<b>Analogical reasoning</b>
Intuition	Systematic
Surface-level similarities	Fundamental similarities in structure
Rules of thumb (deduction)	Induction-based
Low-level of proportionality	High-level of proportionality
Simplicity	Complexity

#### 2.4 Interfaces between the theories of the thesis

The figure 2. Illustrates the interfaces of the three research themes. Sensemaking can be done based on causation and effectuation approaches since these approaches provide frameworks

for uncertainty (Weick 1995: 4; Sarasvathy 2001), but it can be also done based on heuristic and analogical reasonings (Maitland & Sammartino 2015a). Therefore, sensemaking can be interpreted to be a parent concept for these theories. Moreover, effectuation and causation approaches are included in cognitive reasoning since they are based on entrepreneur's judgement about a suitable way of doing business in uncertainty (Sarasvathy 2001; Sarasvathy & Dew 2013; Buckley 2014). For this reason, cognitive reasoning can be seen as the parent concept for causation and effectuation approaches.



**Figure 3.** Interfaces between the themes of the thesis.

## 2.5 Theoretical framework

This chapter covers the key areas that the empirical part will follow from the theoretical perspective. The intention is to clarify what are the problem areas of the existing literature and what kind of approach this research provides in order to respond these areas. Moreover, the chapter sheds in light what kind of predictions can be made based on existing literature about the empirical part findings.

### 2.5.1 The sensemaking of effectuation-based born globals

Born globals, that can be characterized as firms focusing on international opportunities in the early stage of their life-cycle (Eurofound 2012; Sinkovics et al 2013), face first-time opportunities that are not often created with systematic market researches in entrepreneurial firms with predictable results (Chandra et al. 2009). Instead these early opportunities tend to be created in entrepreneurial firms based on contingencies and or unexpected discoveries that are the result of unique experience and knowledge of an entrepreneur (Sarasvathy 2001; Chandra et al. 2009). In other words, these opportunities are not often based on expected returns that are expected by investors because the product is not solely defined with existing market knowledge (Sarasvathy et al. 1998; Sarasvathy 2001; Read & Sarasvathy 2005). Moreover, as the born globals and effectuation theory has such similar characteristics as ambiguity towards goals and unpredictable future (Sarasvathy 2001; Gabrielsson & Gabrielsson 2013), this means that born globals may lack a causality that helps followers and employees to make sense, particularly, in complex international environments (Reuber et al. 2018; Watts et al. 2019). Therefore, this research focuses on creating understanding, *how the born globals manage to make sense, particularly, for their employees and investors about the company's first-time opportunities*. While the sensemaking literature emphasizes traditional cause-outcome links, predictability of business and vision clarity (Weick 1995: 4, 92–93; Vallaster et al. 2005; Baran & Scott 2010; Van Balen et al. 2018; Watts et al. 2019), effectuation approach

and the first-time opportunity recognition can be characterized with such elements as unpredictable market segments, development of succession based on various failures and ambiguity towards business value in future (Cahndra et al. 2009; Sarasvathy et al. 2008; Sarasvathy 2001). Therefore, *the empirical part should focus on investigating the conflict between sense-making clarity and effectuation phenomena.*

### 2.5.2 Heuristic and analogical reasoning in international context

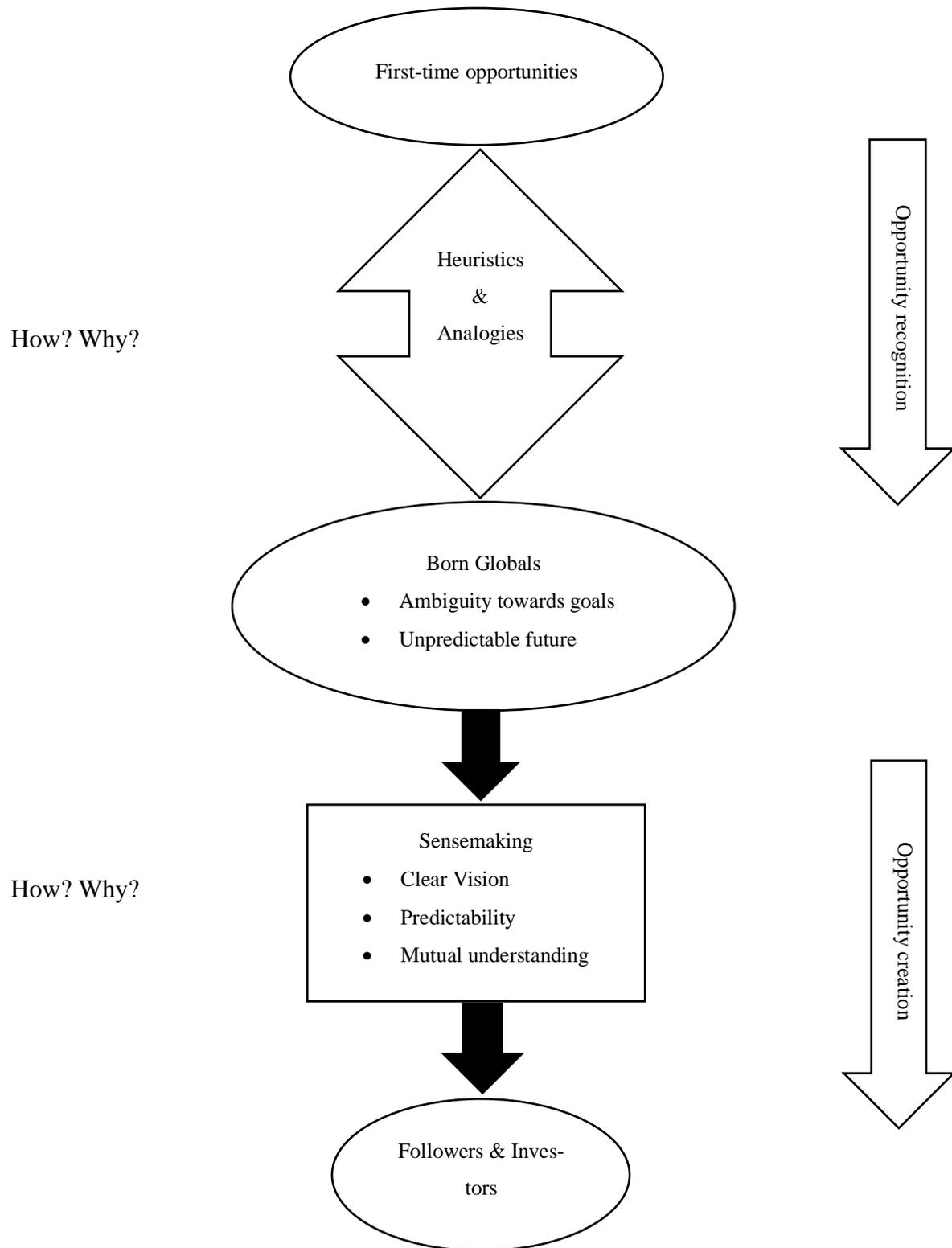
It has been observed that companies in multinational environments in some cases make sense based on their cognitive capabilities that may mean, for example heuristic and analogical reasonings (Jones & Casulli 2014; Buckley 2014; Maitland & Sammartino 2015a,b). For this reason, the thesis seeks more empirical data to the issue, *whether companies in international environments exploit different forms of heuristic and analogical sensemaking.* The thesis adopts Jones' and Casulli's (2014) view about heuristic and analogical logics in order to reason the relation between prior experience and new situation and thesis focuses on this issue from the opportunity recognition perspective (Chandra et al. 2009). This kind of approach appears to be relevant, when it comes to the international markets (Jones & Casulli 2014; Maitland & Sammartino 2014a; Maitland & Sammartino 2015b). Moreover, the born global perspective provides new approach to heuristic and analogical reasoning studies.

### 2.5.3 Projected results

When it comes to the sensemaking of born globals towards their employees and investors (Sarasvathy et al. 1998; Navis & Clynn 2011; Watts et al. 2019), it is likely that instead of providing high level of predictability for these stakeholders in terms of causation approach, the target firms rely on effectuation approach in terms of existing means (Sarasvathy 2001). This assumption is based on the common view of born globals which highlights the high level of ambiguity and lack of internal resources (Gabrielsson & Gabrielsson 2013) leading to the situation, wherein these young firms need to rely on existing means and adjust their

goals based on these means (Sarasvathy 2001). Therefore, the sensemaking towards the employees could occur, for example based on the existing skills of each individual allowing them to lead themselves as autonomous workers (Sarasvathy 2001; Lund 2019). The sensemaking towards the company's investors could be projected to occur based on existing relationships and networks that increase the means of entrepreneurs as the result of earlier created trust (Galkina & Chetty 2015). However, the intention of this thesis is not to rely solely on Sarasvathy's (2001) effectuation theory, but it is rather to be open-minded for different logics.

It is likely that born globals rely greatly on heuristic reasoning during their first-time opportunities (Chandra et al. 2009; Jones & Casulli 2014) because it provides efficiency related to decision making (Rozoff 1964; Katapodi 2005; Jones & Casulli 2014), which is crucial in such young and small firms as born globals (Williams 2003; Kuuluvainen 2011; Gabrielsson & Gabrielsson 2013). Moreover, it could be argued that as heuristic reasoning represents early stage reasoning when there are no corresponding knowledge related to certain problem (Evans 2006), such young companies as born globals (Knight & Cavusgil 2004) could be assumed to rely on heuristic at least if they lack international entrepreneurship experience in terms of analogical experience (Maitland & Sammartino 2015a). However, according to Knight and Cavusgil (2014) born globals tend to have specialist knowledge, which can be exploited in their business activities. This suggest that analogical reasoning could be followed by comparing this specialist knowledge to a business opportunity, despite the lack of international entrepreneurial experience (Maitland & Sammartino 2015a). Therefore, the amount of analogical reasoning can be projected to depended on earlier analogical knowledge and experience in relation to the new situation (Jones & Casulli 2014; Maitland & Sammartino 2015a).



**Figure 4.** Theoretical framework.

### 3. METHODOLOGY

This chapter clarifies the methodological choices that have been used in order to create the frames for the empirical research. More specifically, this will be done by evaluating the type of research philosophy, defining the research approach, choosing the research method, taking into consideration the reliability/validity issues and making the data collection plan as well as providing the information about how the data collection was implemented in practice.

#### 3.1 Research philosophy

According to Saunders, Lewis and Thornhill (2007: 101-102) research philosophy considers the development of the knowledge and the nature of the knowledge, which can be defined based on epistemology, ontology and axiology. While epistemology considers what kind of knowledge is acceptable in the studies (Saunders et al. 2007: 102) by emphasizing contextual certainty of scientific discoveries (Locke 2007), ontology is focusing on the researcher's assumptions towards the reality (Saunders et al. 2007: 108). Moreover, axiology is related to the researcher's values towards the research project with individual judgement in topic selection (Saunders et al. 2007: 110).

This study follows mainly interpretivism epistemology which means that humans are seen rather as social actors than objects with certain laws. Therefore, the purpose in this study is trying to understand an individual's behaviour without limiting the interpretation based on simplified laws. (Saunders et al. 2007: 106–107) Despite, the theoretical framework includes a law-like separation between heuristic and analogical reasonings, it does not try to simplify human behaviour to certain categories. Instead, these reasonings work as tools for this research in order to understand cognitive reasoning and due to limited time, only these theories are at the center of the cognitive theory part. However, the study does not abandon that individuals could reason without heuristic and analogical reasonings. On the other hand, the sensemaking part of the theoretical framework is strongly in line with interpretivism since it emphasizes an individual's free interpretation of situations without simplified laws (Saunders

et al 2007: 106–107). When it comes to the ontology, the research is more focused on subjectivism than objectivism, which means that social interaction creates the reality and it is not only the result of organizational structure and individual duties (Saunders et al. 2007: 108). For example, the sensemaking phenomenon in the thesis includes this kind of logic, wherein the environment can be created based on individual's actions (Weick 1995: 30–31). From the axiology perspective the topic of this thesis has been selected partly based on the researcher's motives related to better understanding towards born globals.

### 3.2 Research approach

Generally, the deductive approach will be followed in the study, as the theory will be exploited in order to testing it in practice (Locke 2007). It could be argued that the deductive logic can be seen in theoretical framework, while the idea is to test whether heuristic and analogical reasonings occur in the born globals' opportunity recognition. Moreover, the sensemaking research objective in the theoretical framework has a deductive nature, as it is narrowed to first-time opportunity sensemaking towards followers and investors. This means that there are already some theoretical generalizations related the topic and this research go from general to particular in terms of deduction (Locke 2007). On the other hand, Saunders et al. (2007: 118–119) argue that deductive research approach leaves only a limited space for explanations that are not assumed in the theory. Therefore, the deduction approach often finalizes the possible result variations already in the theory and methodology part, which is not the purpose of this study. Instead the induction approach allows less scripted results because it does not rely on simplified variables or assumptions. (Saunders et al. 2007: 118-119) This way the intention of this study is also to leave space for unintentional results by enabling data which could go from particular to general, or at least suggest issues that could be generalized in the future's studies. Therefore, induction approach is not excluded since "*science advances*" only by *disproving theories*". (Locke 2007) As a summary, it can be said that this research has elements of deductive and inductive approaches, because the theory will be tested but there are no locked research variables that would lead to certain outcomes.

### 3.3 Case study approach

According to Yin (1994: 6) case study is appropriate research method when the questions; how and why will be answered. The nature of these questions is explanatory, because instead of focusing on exact predictable issues, they emphasize unpredictable outcomes and non-numeric explanations for phenomena (Yin 1994: 6–7). While this research is about born globals' first-time opportunities, it is important that the focus is on explaining these opportunities by giving the research targets a freedom to tell about their opportunities without trying to lead them to predicted outcomes. Therefore, the targets should not be given any suggestions for how to reason international first-time opportunities, but it should rather be analysed afterwards from the case data.

It is important to recognize which propositions the case study includes in order to understand its purpose (Yin 1994: 21). In this study the theory-based propositions are that born globals are reasoning their first-time opportunities based on some form of heuristic or analogical reasoning and effectuation approach has been exploited somewhat by born globals in first-time opportunities. These propositions refer to deduction-based purpose of the thesis, which means that the research focuses on testing the current theory (Locke 2007). When it comes to the purpose of actual results, according to Stake (1995: 7–8) the case studies are poor at providing generalization from the results, because the major goal of there is to provide understanding related to the single case instead of assessing the relation of different cases. Moreover, an interpretation is an important part of case studies as a qualitative method, because the researcher is not limited to analyse the results based on variables, but it is rather making argumentations about the most relevant findings (Stake 1995: 8–12). So, the purpose of this research as a case study is not end up generalizations of the international opportunities in the conclusion part, but the purpose is rather to interpret a unique case and how a specific international opportunity has been seen in this case. This means that the emphasis is more on deduction approach due to the case study method because it does not provide an ideal way to go from particular to general (Locke 2007). However, as a qualitative research form case studies should aim to make sense to the unknown phenomena (Stake 1995: 72), which means

that case study method includes possibilities for later generalizations. If generalizations have been made directly from a case study, they are rather analytic generalizations where a theory is tested than statistical generalizations that are based on high number of sampling units (Yin 1994: 31–32).

According to Yin (1994: 21) by defining a unit of analysis in case studies considers what the actual case of the study is. This definition should help the researcher to have accurate research questions about the case that will be studied (Yin 1994: 23). The unit of analysis in this research is mainly a born global as an entity because the focus is on born global's international first-time opportunity. However, because the research considers this phenomenon from the cognitive perspective, it is obvious that the individual who makes the internationalization decisions will be the case unit. Therefore, the unit of analysis should be, for example a founder, international manager or CEO in this research.

### 3.4 Research method

The research method of the thesis is a multi-method qualitative study, which means the study includes more than one qualitative method. (Saunders et al. 2007: 145) According to Yin (1994: 91–92) case studies that have multiple sources of evidence often have more convincing and high-quality results than those that are based on single evidence type. This can be the result of increased construct validity, which means that multiple methods provide more comprehensive image of a specific topic (Yin 1994: 34, 92).

The primary type of research method is qualitative-based interviews with born globals/international new ventures. The qualitative research method is chosen because it fits best to the issues that has not been widely studied (Walker 1987). The type of interviews will be semi-structured form in order to maintain the focus to the topic but also giving the interviewees freedom to raise up non-scripted issues inside the topic (Andersson 2011). The choice of semi-structured interviews instead of open interviews can be also based on the criticism to-

wards lack of scholarly rigor in qualitative research. On the other hand, the choice of structured interviews could lead to the problem of being rooted too much already known information and delimiting new information. (Gioia, Corley & Hamilton 2012) Moreover, according to Gillham (2000: 65) the semi-structured is the most important form of interviewing, when it comes to the case studies, because it may provide a rich data. However, the semi-structured interviewing method demands that the interviewer has a clarity of the key issues of the research (Gillham 2000: 65). Therefore, the questions of this research have been formed in order to provide cohesion to the theoretical framework chapter. It is also important to develop the interview questions in a way that emphasizes the questions how and why, because the nature of case study method emphasizes them (Yin 1994: 20–21). This way the interview questions should be planned to be components for these questions, which does not necessarily mean that they should always include the words; how and why.

In addition to the interviews, the secondary data will be also used in order to achieve more comprehensive image of the case. According to Saunders et al. (2007: 256) secondary data means the already existing data that has been collected to some earlier purpose. It must be noted that some of the secondary data related to companies is not public and it need to be negotiated from the company (Saunders et al. 2007: 257). Based on Andersson's (2011) example the secondary data will be collected by requesting, for example annual reports from the companies and exploiting possible newspaper articles when it is possible. Therefore, the secondary data of this research includes mostly a documentary data which is in written form (Saunders et al. 2007: 248). It must be highlighted that the secondary data should consider the time related to a company's first-time international opportunity in terms of research agenda from the theoretical framework.

### 3.5 Reliability and validity

According to Saunders et al. (2007: 149) reliability defines whether the research procedures results the similar outcomes despite the different background factors that may affect to these outcomes. In terms of reliability it is important to provide transparency related to the research

procedures that it is possible to repeat a similar research (Saunders 2007: 149). In this research the reliability issues have been taken into consideration by limiting the case companies to Finnish firms in order to avoid cultural effect on the outcomes (Hoffstede 1980). The exploitation of secondary data will also increase the level of reliability because it decreases the dependency on a single interview process. When it comes to the actual interpretation of the theory in terms of coding, the transcript material has been analysed by dividing it to the sense-making and cognitive reasoning parts that are the core categories of the study (Rabinovich & Kacen 2010). These different categories are considered in separate questions which make it clearer to recognize them from the transcript. The issue, whether a company's behaviour can be categorized to heuristic or analogical reasoning, is based on the nature of their experience and knowledge to which their internationalization is based on (Jones & Casulli 2014). Therefore, the knowledge and experience work as subcategories for cognitive reasoning in order to classify a firm's international opportunity reasoning to heuristic and analogical ones (Rabinovich & Kacen 2010) from the opportunity recognition perspective (Chandra et al. 2009). When it comes to the sensemaking category, the transcript has been analysed focusing on such subcategories of sensemaking as predictability giving and ambiguity reduction (Sarasvathy 2001; Baran & Scott 2010; Rabinovich & Kacen 2010; Watts et al. 2019) from the opportunity creation perspective (Bettiol et al. 2012). This kind of description of the theory-based coding should increase the possibilities to repeat a similar research in terms of reliability (Saunders et al. 2007: 149). Moreover, the reliability is increased in the study by focusing solely on firms that are young and operate in technology industry (Schwens & Kabst 2011) because this limits differences that could be the result of industry and age variables increasing the repeatability requirements of the study (Saunders et al. 2007: 149).

Saunders et al. (2007: 150) state that validity tells how the research results are answering to studied issue. In other words, it is important to confirm that research methods support what is relevant from the theoretical perspective (Saunders et al. 2007: 150). While this study is considering the international first-time opportunities (Chandra et al. 2009), born globals represent an ideal target group for the research because they are the companies that go to the

international markets in the early stage of their life cycle (Knight & Cavusgil 2004). However, as the born global requirements differ in the literature from having international activities from 2 to 10 year within company's inception and having, for example 80 percent of the sales to the international market or not having percent limit at all (Eurofound 2012), it is important to find the limits that serves the international first-time opportunity perspective (Chandra et al 2009). The problem of the limitation based on strict export rate would not allow to investigate companies that are currently facing the early stage uncertainty of the international business (Knight & Liesch 2016). For example, the born globals with 80 percent of exporting in relation to total sales may not be in the early stage of their internationalization anymore. Therefore, the export rate has given the supporting emphasis in this study, which means it can rather be sign of global mindset than the limitation issue (Knight & Cavusgil 2004; Poole 2012). The global mindset is rather a key criterion while choosing the target companies, because it means that the company has an intention to go international market at the very early stage of business (Knight & Cavusgil 2004; Poole 2012) allowing to study the early stage ambiguity of young firms (Gabrielsson & Gabrielsson 2013; Knight & Liesch 2016). The reason to focus on young firms is based on the intention to avoid retrospective sensemaking, which could affect the results by simplifying the reality (Weick 1995: 24, 28). The same problem of retrospective data has been also mentioned by Schwens and Kabst (2011), who studied young technology companies that were averagely 9,13 years old. In this study the validity is supported by limiting the target companies to be not more than 6 years old (Saunders et al. 2007: 150). Moreover, as the intention is to study young technology firms (Schwens and Kabst 2011), this study follows the 5-year requirement instead of the strict 2-year one (Eurofound 2012) because the it is common for young technology firms with new products to struggle of having efficient R&D processes at the early stage of their business (Karagozoglu & Lindell 1998). The technology criterion will be followed in this research by defining that the target companies should have some data-based software supporting their solutions (Silver 2017).

### 3.6 Data collection

In this chapter the data collection process, will be explained from two different perspective; what was the original plan for the collection process and how it occurred in practice. The purpose the division is to provide transparency related to the research process.

#### 3.6.1 The data collection plan

The potential target companies will be contacted if their websites or other type of secondary data proves that they represent the born global types that has been defined in the previous chapter. The actual way to approach the potential interviewees is to use Skype, Zoom or telephone as communication tools. Therefore, the physical distance does not limit the representation of the sample. The telephone will be the major way to make the first contact to the interviewee, but the actual interview should be arranged via Skype, Zoom or even face-to-face meetings, in order to achieve as open conversation as possible. Moreover, the interview questions will be sent beforehand to the interviewees in order to give their possibility to be prepared for specific research themes. The interviews will be recorded whether the interviewee gives a permission for this activity because this confirms that the interviewer does not lose any data during the process.

The selection of the data sources should be made in case studies by choosing the research targets that best help to understand the case (Stake 1995: 56). According to Stake (1995: 58) in case studies *“The researcher should indicate how and why the organization was selected but should not work hard at correcting misrepresentations of the selection procedure.”* When it comes to the actual interviewees of the case study, it is obvious that the key organizations and their individuals should be reached (Yin 1994: 68). In this research, the key organizations are born globals and the key individuals are the ones with the best knowledge related to a company’s first international opportunity. Therefore, the data collection should be targeting to such key persons related to the early international operations as company’s founder, CEO or international manager.

According to Stake (1995: 9) the case study method includes the possibility to modify the interview questions if it is needed in order to understand better the cases. However, Yin (1994: 52) argues that if the design of the case study will be modified during the empirical process, it should happen in the limits of theoretical concerns and objectives. In other words, the theoretical framework chapter defines, whether any changes will be made during the data collection process. Yin (1994: 52) also argues that the selection of the cases in multiple case studies need be changed if the case interviews provide an information that supports the need of the change. However, due to the time limits of master's thesis process, the intention of this research is not to change dramatically the requirements of case companies.

### 3.6.2 The data collection in practise

The actual data collection process occurred in January 2020, while the potential case companies were first searched from the Internet, which was followed by the phone calls and emails. The contact attempts were made to nine potential companies of which five were made by phone and four via email. One of the companies that were contacted by phone was not reached, three of them could not participate in the research and one of them was interviewed through Zoom. Three of the companies that were sent emails responded to this email and one of them did not respond. One of those companies that responded to the email could not participate to the research and two of them were interviewed through Zoom. The actual Zoom interviews occurred between 16.1.2020 and 30.1.2020 and they took from half hour to one hour. All the interviews were recorded based on the interviewees permission and they were later transcribed for the case analyses.

Two of the individuals that were interviewed are the founders and CEOs of their companies and one of the individuals is "*The Director of growth and partnerships*" of his title. Moreover, the Company B's founder's statements were analysed based on the secondary data interviews that have been published in the company B's websites. The interviewees were given all the interview questions beforehand, but they were not informed about the actual theories

to which the research questions are based on. These theories were not revealed in advance in order to avoid leading the interviewees to certain type of answers.

Mostly the interview questions were followed in the same order that they were in the original question paper. However, some questions were not asked if the interviewer evaluated that they were answered in the previous conversation. In some cases, the interviewee wanted to discuss about the issues that were not directly among the interview question, but mostly these issues were related to the research topic, so it was not necessary to direct the interview away from those additional issues. When it comes to the requirement of case company selection, the emphasis of the born global requirements changed slightly after the first interview. Before the first interview the selection requirements were based on Sinkovics' et al. (2013) born global requirements that are 25 percent of export relation to total sales and international activities within three years of company's inception. However, these requirements changed during the process, while it was noticed that the emphasis should be more on global mindset perspective and the young ages of these companies (Knight & Cavusgil 2004; Schwens and Kabst 2011; Poole 2012), due to the nature of the research topic. This was particularly the result of case company contact process, while the pre-details of these companies adjusted what kind of requirement would best support the investigation of international first-time opportunities (Chandra 2009). According to Yin (1994: 52) this kind of change related to the case selection requirements is justified in the early stage of data collection process, because the interviewee's knowledge increases about suitable cases during the data collection process.

## 4. RESULTS

This chapter considers the chosen cases companies one-by-one, which is followed by the cross-case analysis. The case chapters include the general description of each case company and its industry, the born global characteristics of the case, the analysis of heuristic and analogical reasonings and the analysis of sensemaking towards employees and investors. The cross-case analysis chapter highlights the similarities and differences between the cases in order to set the high amount data to a more compact form (Cerceanu, Mat, Junqua, Lin, Laforest & Gonzalez 2014). The table 4 presents the characteristics of each case company and the nature of case data in order to support the understanding of the cases.

**Table 4.** Characteristics of the case companies and the nature of data

	<b>Company A</b>	<b>Company B</b>	<b>Company C</b>
<b>Position of the interviewee</b>	Founder/CEO (primary data)	The Director of growth and partnerships (primary data) & Founder/CEO (secondary data)	Founder/CEO (primary data)
<b>Duration of the interview</b>	26 minutes 44 seconds	59 minutes 2 seconds	31 minutes 4 seconds
<b>Secondary data</b>	Official websites & Youtube	Official websites, Youtube & Technology Innovators	Official websites & Youtube
<b>Founded in</b>	2015	2016	2015
<b>Industry</b>	Healthcare, Education, AV & IT	Healthcare, Data-based consultancy & IT	Education, IT
<b>More than 25% of total sales to international markets (January 2020)</b>	Yes	No	No
<b>Sales within 5 years of company's inception</b>	Yes	Yes	Yes
<b>Intention to go to the international markets since the company's inception</b>	Yes	Yes	Yes

#### 4.1 Case 1

A company A provides personalized solutions for various customers based on their giant smart-tablet product. Their offering is mainly focused on healthcare and educational purposes but also for many other activities like business and construction solutions. For instance, in healthcare sector their product provides possibilities for different users, despite the level of their motor skills or other factors that would normally limit the user's possibilities with smart products. (The company A's websites 2020) When it comes to the education sector, the company provides more possibilities in the form of different kinds of learning methods. Therefore, their smart technology supports more interactivity, particularly, for children's learning environment by providing a possibility to study and play together with the big touch screen. (Youtube 2020a)

According to the founder the company A basically has two business areas; their smart tablet product and customized projects that respond to the specific needs of the clients. The product business is mostly targeted to healthcare and special education purposes, whereas the custom sales are projects where the solutions are built from the scratch for any purpose. The founder states related to the custom sales; *"we first do the planning, design, electrical- and mechanics design and we do the first prototype that is moved to the production, which is followed by mass production. In other words, we are very exceptional actor today, and we do not know other company that would provide (customized) touch screen solutions to the mass production."* The founder also mentions that they want to *"built an ecosystem around their product"*, which in the high-tech context refers to solution that can be adapted for different purposes (De Souza, Goh, Sundarakani, Wai, Toh & Young 2011). In this case, the custom sales and the product business has been both considered as international first-time opportunities of the firm, because they both include international entrepreneurial activities in the early stage of the company A's life-cycle (Chandra et al. 2009). Especially, the interviewee's mentioned offering uniqueness refers to so called *"earlier entrepreneurial errors"*, that mean the entrepreneur has found a value creation potential from somewhere, where the other entrepreneurs have missed it (Kirzner 1997; Shane & Venkatamaran 2000).

#### 4.1.1 Born global characteristics

The founder of the company A appears to have a strong global mindset, which means that international markets has been a remarkable part of the entrepreneur's plans from the very beginning (Knight & Cavusgil 2004; Poole 2012). The founder states that she already realized the limits of domestic business when she was ten years old; *"I do not want to become an entrepreneur at all if I am only able to found a company, that is limited to domestic business."* As the company was founded by the interviewee and her husband, she adds; *"We are both probably ambitious people and we are not trying to conquer the world, but we never thought that we would stay in Finland. It has been the mindset for us as persons."* The founder also mentioned that their export relation to total sales is over 25 percent, which supports Sinkovics' et al. (2013) theoretical definition of a born global. Moreover, there is no strict between domestic and international business, which refers to Knight's and Liesch's (2016) view of born global entrepreneurs, that born globals see international business to be almost their domestic markets. Related to this, the entrepreneur states; *"Both of our business areas (the product and the custom sales) are international, so I see no difference compared to domestic value creation."* On the other hand, the founder mentions; *"There is absolutely a big difference (between domestic and international business)"*, which seemed to be in conflict with the earlier statement. However, she specifies this issue; *"While the company's value comes from our top know-how, it has the same value in domestic and international markets, but the way to go to international markets varies remarkably from the domestic markets."* In other words, despite the increased globalization advantages of today (Knight & Cavusgil 2004), the national borders still have a huge impact to the business in practice. Therefore, *"increasing homogenization of buyer preferences"* (Knight & Cavusgil 2004), does not mean that the national differences would not affect the business creation, although the end customer's value is universal.

When it comes to the websites of the company A, it is notably that in addition to Finnish, there are English, Spanish and German available for the language option and all the demonstration videos of the company's offerings are in English. Moreover, the company appears to

have a facility address in Spain and their personnel include employees with non-Finnish names. (The company A's websites 2020) Taking into consideration that the company has been founded in 2015 (The company A's websites 2020), the content of their websites supports the view of global mindset, as the company is still a relatively young actor (Knight & Cavusgil 2004; Poole 2012).

#### 4.1.2 Heuristic and analogical reasoning

While analysing the cognitive reasoning of the entrepreneur (Jones & Casulli 2014), the observations provide different kind of results, depending whether the analysis is made based on specific comments of the interviewee or the holistic picture of the case. The results also seem to be differing based on the different time period in the company A's life cycle.

While discussing about the actual reasons to go international markets, the interviewee mentions couple of times the willingness "*to go forward*" and "*the growth*". She also mentioned such issues as "*earning more money*" and "*the limits of Finnish market*". These could be interpreted referring to heuristic reasoning, because those reasons can be seen as the deduction and rules of thumb -based reasons to go international markets (Rozoff 1964). In other words, the interviewee's mentioned motives to go international markets suggest, especially, going from general to particular (Locke 2007), which in this case means that the founder has an idea about growth possibilities in international markets and it was followed in this case by going to the international markets. Moreover, while the discussion was moved to consider, whether the international market opportunity decisions are more calculated or intuition-based judgement, she states; "*All of our decisions are based on intuition, but as I earlier mentioned, we never had the idea that we would not go there (to international markets).*" This intuition statement also refers heavily to heuristic logic, as the intuition is a heuristic element, while comparing earlier experiences to the new ones (Jones & Casulli 2014).

While analysing the key reasons for heuristic reasoning in this case company, it is obvious that the limited previous experience related to industry was highlighted during the interview.

For example, the founder clarifies their earlier experience; *“It is important to understand our specific background because we had never been in the AV (audiovisual) industry before, and we had never sold any devices, so we had to learn the industry from the scratch during the couple of previous years. The way we went to the foreign markets (at the beginning) was based on an intuitive style, because we did not know the industry very well. On the other hand that has probably been an advantage for us since we had the chance to learn this industry and everything related to it, so we were able to get into different immediate opportunities that we tried to dig from everywhere.”* On the other hand, according to the interviewee both founders had some international experience and foreign language skills that were affecting to the decision to go international markets; *“There was no big gap for us to go international markets compared to domestic markets because we have been there before and we speak many languages.”* In addition, according to the company A’s websites (2020) the other founder had been previously worked with touch screens. It could be argued that, despite the founders had some sort of experience related to international environment and touch screens, and they had broad foreign language skills, they still did not have the core experience, for example related to international entrepreneurship, specific markets or the industry that would had helped them in order to exploit more analytical reasoning logics. (Evans 2006; McClary & Talanquer 2011) According to Maitland and Sammartino (2015b) by lacking the international experience, an entrepreneur can form less knowledge connections and interfaces between the previous and the current internationalization issues. Therefore, their lack of specific knowledge meant they had to rely on heuristic reasoning at the beginning of their internationalization, because they were still on the pre-stage level related to the existing knowledge base of the internationalization (Evans 2006).

While the founder gives an example of their foreign market entry attempt to England, there are signs of moving towards more analytical reasoning logic (Evans 2006). This discussion started, when the founder was asked about their customer contacts that were the result of international market opportunity digging. *“We had all kinds of attempts and we had specific tests, when we tried to dig opportunities based on different partnerships. For example, in England a library contacted us and requested our services directly, which resulted that we*

were thinking to go to the library markets. However, even when we managed to find a retailer for us, it did not work eventually. This kind of behavior refers, particularly, to availability heuristic, which means that an individual relies on personal knowledge or experience as a standard while making decisions (Greening et al. 1996). On the other hand, there are signs of more analytic reasoning logic related to founder's comment related to failed foreign market opportunity; *"Although, I have been studying marketing before, I do not believe that a start-up, which creates new markets can do very precise planning."* Therefore, the interviewee is aware of the idea that such heuristic reasoning logics as relying on existing education experience as a standard, does not work in the new problem case (Greening et al. 1996). In other words, there are signs of more analytical reasoning logics in interviewee's behavior, because at least the availability heuristic is somewhat inhibited related to education experience (Greening et al. 1996; Evans 2006).

Another example of moving towards more analytical reasoning was observed, while the interviewee was asked about marketing research (Evans 2006). The founder mentioned that they had done some marketing research at the beginning of their internationalization, but it did not have much influence on their business; *"We did not benefit from it (Marketing research). The best marketing research is that you start to do things."* The founder also emphasizes that the relevance of marketing research depends on the industry; *"If you decide to go to a static markets by selling oats to international markets, you have a chance to get statistics about how to sell this product to these markets. But the way we went to our markets was based a new technology in new markets, so we did not a chance to read existing books that would had supported our market entry."* It could be argued that the oat example is closer to the definition of perfect competition than the company A's high-tech industry because the knowledge is easier available for everyone in this kind of static markets (Kirzner 1997). The entrepreneur's knowledge was closer to Kirzner's mentioned *"unthought-of knowledge"* that can be gained rather in discovery processes than in marketing researches. In other words, the interviewee knew that external knowledge would not help the company in their industry, which forced the founders to think solutions from outside the educational background in terms of more analytical reasoning (Evans 2006).

When it comes to the analogical reasoning, the interviewee gives an explanation related to the difficulties to exploit analogies in the early stage of the internationalization. *“The big problem related to marketing researches for us as a firm that did not know exactly what it is doing and what are its special competencies, was that the marketing research do not give any answers.* The interviewee also mentioned that they had been looking for an industry expert, but it had been a really difficult to find any person with such skills. The interviewee also specifies the problem of marketing research outcomes; *“It (the marketing research) is limited to such an abstract level that it does not benefit us (in practice).”* It becomes clear that the interviewee has tried to exploit analogical reasoning in terms of marketing research and industry expert, but as mentioned by Maitland and Sammartino (2015a) the lack of corresponding analogies in terms of earlier experiences or knowledge will result the limited richness in decision-making. In marketing research, they had no use for the results that did not correspond with their business, because without industry experience the content of marketing research led to *“abstract”* results, in other words to non-accurate answers (Maitland & Sammartino 2015a). Therefore, it could be interpreted that the company had difficulties to find analogies in terms of marketing research, because they tried to create something new in the market and not something that already existed and the individuals with existing analogical knowledge were difficult to find.

During the later stage of the company A’s business, the analogical reasoning appears to be exploited because the company already has an industry experience. *“Today the marketing research has a value for us because when we are doing it, we already know what we want from it. So, nowadays we are really benefiting from marketing researches.”* In other words, the company has more knowledge analogies that correspond to their new market opportunities, which enables them to get richer answers with market researches (Maitland & Sammartino 2015a). Moreover, as the company’s websites show, the company has been able to create solutions in such different areas as education, healthcare, business, construction and library industries (The company A’s websites 2020). This is a relatively pure example of analogical reasoning, since this kind of structure mapping is based on induction-based knowledge, while the company tried to *“dig”* different opportunities (Jones & Casulli 2014). This way the

company has been able to recognize analogical needs from different industries that can be responded based on their solutions. Therefore, it seems in this case that the heuristic reasoning has been the pre-stage in the international foreign market opportunity recognition, which has been later at least partly replaced with analogical reasoning, when the company's more specific industry knowledge has been increased (Evans 2006; Shane & Venkataraman 2000; Jones & Casulli 2014).

#### 4.1.3 Sensemaking towards employees and investors

The company A is an organization that has 15 employees today and they had less than 10 employees during the international first-time opportunities. The company's investors include mainly individual financiers, the company's distributor and public finance.

The interviewee states that in their organization it is important to be able to work independently; *"In our organization, you need to be a fully independent worker."* This suggests that the employees' role in the company, is relatively far from being the traditional receiving follower because the employees are rather self-driven employees (Lund 2009). According to the founder the role of the management is highlighted in strategic decisions and the employees need *"a permission (to proceed) related to strategic issues"*. However, the founder also mentions that if their employees are able to justify their decisions the managers, they are allowed to act very independently. This highlights the role of internal communication in strategic decision making, in which the mutual understanding between managers and employees is crucial in terms of sensemaking (Weick 1995: 6, 99).

While the discussion moved more towards the international first-time opportunities and how company's employees make sense to this opportunity, the founder states; *"These have been practiced in the domestic market."* The founder also mentions; *"Our way to do things (in new markets), includes that we first try and check (the market opportunity), and when we have done the first efforts, we think more carefully why some things work and why others do not work."* This kind of sensemaking refers to enactment, wherein prospective actions has

been made in order to make sense retrospectively, which may lead to further opportunities (Bhowmick 2015). Moreover, the interviewee clarifies, that the general instructions for their employees are based on their experiences in the foreign markets, which supports the enactment image of retrospective sensemaking (Weick 1995: 30–31; Bhowmick 2015); *“Today we know how it works. Because we have been in so many markets. Our general instructions for the employees are following (in the opportunity creation); find customers from a certain market, you can spend a certain amount of money in expos, try to call to the suitable retailers and end customers and find a couple of key customers.”* In other words, without these earlier market entries, that represent prospective actions (Bhowmick 2015), it would be harder for the employees to know what to do in these market opportunities.

When the interviewee was asked, whether the company had some sort of vision or strategy supporting the predictability for their followers about the first-time opportunities (Watts et al. 2019), she explains following; *“If I provide a strategy with little background knowledge about a specific company and a market area, it does not work at all.”* The founder also mentioned related to the problem of predictability; *“If we were given the (market) knowledge in a suitable form, we would save some money, but it is relatively difficult and expensive to find a consultant with that kind of knowledge.”* It can be argued that this statement highlights Sarasvathy’s (2001) effectuation approach, which emphasizes the existing means over predictability and the exploitation of contingencies over pre-existing knowledge. In addition, the mention about the expensiveness of hiring an outside consultant may refer to Schweizer’s et al. (2010) idea of the expensiveness related to predictive rationality. In other words, by relying on existing means in terms of foreign market trials becomes cheaper than using an outside consultant, because the possible mistakes are sooner acknowledged in the first option (Schweizer et al. 2010). Therefore, the company made sense for their employees by emphasizing the earlier experience during the first-time opportunities, since Watts et al. (2019) mentioned predictability through vision or strategy required that kind of knowledge, which would have been expensive and time-consuming to gather.

When it comes to the company A's finance during their international first-time opportunities (Chandra 2009), the founder clarifies their first investors; *"One of these small investors that we had (in the beginning), was a personal contact who is an entrepreneur. The second investor was our distributor in Finland."* The founder also adds; *"In Finland there is a very limited number of investors in our industry, so we have relied greatly on our own assets."* This kind of finance, which is based on existing relationships or assets, refers heavily on effectuation theory because the existing means has been exploited instead of setting targets to external finance (Sarasvathy 2001). In addition, the entrepreneur mentions that the firm has been also relied on public support; *"We have received a loan from a public organization, and we are applying for a support from EU."* According to Sousa and Bradley (2009) export assistance is an effective tool, particularly, for young and small firms that are in the early stage of their internationalization. This kind of public assistance does not only refer to financial support but also to knowledge assistance for example related to foreign market strategies (Sousa & Bradley 2009; Kalafsky 2017).

While the discussion was moved more towards how company made sense to their investors related to their first-time opportunities (Chandra et al. 2009; Navis & Clynn 2011), the founder explains following; *"We have probably justified the finance based on our existing domestic business and we barely asked a permission to go international markets (from the investors). We do not have such traditional capital investors, which also may affect to this."* Moreover, the founder also assumed that the investors and, particularly, the distributor with the better knowledge of the product had been made some calculations based on domestic sales, in order to increase predictability of the business. The interviewee also emphasizes that the amount of finance determinates how much predictability should be given to the investors; *"When we are talking about little investments, it may be enough if the investor believes in our team. However, when you are trying to apply for bigger investment, they want all kinds of numbers, and it is all about them."* The founder mentioned that the logic related to amount of finance to predictability requirements considers both public support and private investors. Therefore, it seems that in this case the investors have been mostly convinced based on such

means as existing domestic business proof, product demonstration meetings, existing relationship with investors and investors' trust towards the team. These means have been able to support sensemaking from investors' perspective, when it comes to the small investments (Navis & Clynn 2011). However, it can be concluded that the more accurate predictability in terms of causation logic is needed in order to get the bigger capital investments (Sarvasvathy 2001).

#### 4.2 Case 2

A company B is providing healthcare solutions that are based on AI and machine learning (The company B's websites 2020). According to "*The Director of growth and partnerships*" the company's core business is related to pre-data of end customers' health status which can be called anamnesis. Their key customers are healthcare providers and insurance companies that exploit the anamnesis in order to support their decision making. The growth director states the company's core value to their customers is to enable "*an automatization of a process*", which also means "*saving the costs*" and "*having the better allocation of human resources*". He gives an example how their service works in healthcare industry; "*When a patient comes with certain type of symptoms, a nurse in the call center may exploit our software by writing the symptom details to this system. After this, the nurse will receive the anamnesis, which provides an explanation of the patient's health status.*" Therefore, the service is currently for professional usage, but the company is developing also a version for end customers in which the patient could add details to the software by itself.

According to the company's founder, "*by combining lifestyle data and medical data with human and machine touch is going to be the future and it shows already hear in (the local market).*" Moreover, the founder states that the company's healthcare software focuses mainly on four things; "*It keeps track on your health continuously, it predicts your future health, it helps you when you are sick so it tells you where to go and what to do and it also offers you preventive advice on what you should do change your life style to live a longer, happier and healthier life.*" (Youtube 2020b) The company B's websites (2020) inform that

it was founded in 2016 by individuals that have expertise in science, technology and entrepreneurship. The founder's description of the company's offering is an example of opportunity recognition that is based on environment scanning, specific skills and experiences and the "*earlier entrepreneur errors*", which have left space for the company B to create a value with the future's trend (Kirzner 1997; Shane & Venkataraman 2000). In this case the business with healthcare providers and insurance companies represents international first-time opportunities because they include international entrepreneurial activities in the early stage of company B's life cycle (Chandra et al. 2009).

#### 4.2.1 Born global characteristics

According to the company B's growth director they had global-mindset since very beginning of the business (Knight & Cavusgil 2004; Poole 2012).; "*I believe that it (international markets) has been a goal from the beginning. Our company is a little more than three years old but even before that when the founders developed a new kind of search technology that was based on visualisation, the direction was towards international markets. So, the international markets have been on the mind since company's foundation.*" Moreover, according to the growth director the company is very likely reaching the 25 percent of their total sales to the international markets during this year. Therefore, the company B reaches nearly to Sinkovics' et al. (2013) born global requirements of having international sales during first three years and having 25 percent of total sales to international markets.

It is also notable that all the material in the company B's websites are exclusively in English including all the interview videos related to the company's offering. In addition, the company has a multicultural team, which includes six different nationalities and spoken languages. (The company B's websites 2020) Related to this, the growth director also specifies that all their advisers come from outside Finland. Despite the company is still a relatively young actor, the content of their websites heavily supports the global mindset, which is the key element of born globals (Knight & Cavusgil 2004; Poole 2012).

#### 4.2.2 Heuristic and analogical reasoning

Generally, the analysis related to the cognitive reasoning (Jones & Casulli 2014) in the company B's case is depended on, whether issue is about the early years or the later years of the company. Moreover, the abstraction level of the decisions appears to be also affecting to the cognitive reasoning style.

The growth director states that the actual decision to go international markets was “*a pretty much intuition based*” and “*no brainer*” decision. Moreover, he explains that “*the market potential*” was an important reason to go international markets; “*The glass ceiling is reached relatively quickly (in Finland) and it (Finnish market) is good for the start and the validation of the concept but there is a limited growth potential. For this reason, I see that there are not many companies staying solely in domestic markets but rather all companies are born globals.*” Moreover, he assumes that “*the international competition*” and “*the decreased meaning of (national) borders (in business)*” have influenced to the trend of born globals. It appears to be that the decision about going to the international market in an abstract level was based on a heuristic logic, because it is mostly based on such rule of thumb principle, that international markets provide higher demand potential (Rozoff 1964).

According to the founder there were a couple of simultaneous happenings, that affected to the idea of the company B's offering. He explains that his young children needed continuous healthcare at the same time when his wife also got ill to a rare disease that took for years to diagnose by doctors. At the same time the founder was also working with information discovery technology related to healthcare industry, from which he got new kind of ideas. Related to these different events the founder realized that based on their skills and technology, they could actually fix the healthcare. (Technology Innovators 2020) The founder's reasoning includes an inductive nature, since the specific experiences has been used in order generalize a business opportunity (Locke 2007). In other words, the founder of the company has been able to map his experience-based knowledge (Minzberg and Lampel 1999; Bach 2011), which has led to an innovation. This refers to analogical reasoning, while the business

opportunity has been made sense by comparing the specific personal problems to the potential business opportunity related to statistic knowledge and healthcare industry (Maitland & Sammartino 2015a,b).

Moreover, the growth director clarifies that from the international opportunity recognition perspective (Kirzner 1997; Shane & Venkataraman 2000), it was important to recognize *“the change of paradigm in macro level.”* He adds that this change means literally; *“going from sickcare to healthcare.”* According to the growth director, the change can be seen, particularly, in the opinions of the healthcare experts; *“There is a lot of literature related to this issue and the opinion leaders (of the healthcare research) are talking about this issue, wherein the idea is to focus on keeping the patient healthy as long as possible (based on preventive healthcare). Moreover, the technology and the AI have a big role related to this change.”* In other words, the company’s way to sense the entrepreneurial opportunity was based on observing the change in macrolevel and they seized to this opportunity based on the founder’s mentioned skills and technology (Teece 2007; Technology Innovators 2020). This supports the analogical reasoning view, since the company had found corresponding analogies comparing the industry trend (sensing opportunity) to their means to use this trend to their advantage (seizing opportunity) (Teece 2007; Jones & Casulli 2014).

According to the growth director, their very first international opportunity was in Sweden and he assumes that there are multiple factors that affected to this; *“Some of the founders are Swedish speaking Finns, which was one (of the internationalization drivers). Also, the close geographic distance to Nordic countries was also an important factor. Besides, it is important that Nordic countries have advanced healthcare technology in a global level, which can be seen in high quality hospitals, (medical) research and decision making.”* This suggests that in early stage of the company’s business heuristic reasoning can be seen in the decision making (Jones & Casulli 2014). For example, the language skills and geographic distance as foreign market drivers represent deduction-based judgement, wherein general-level facts or attributes have been exploited in a particular case (Locke 2007; Jones & Casulli 2014). However, the mention about the level of Nordic healthcare includes more systematic

logic in relation to company's offering, because there is a specific link to healthcare decision making, which is the core area of the company's offering (Jones & Casulli 2014). Therefore, it could be argued that this logic is closer to the analogical structure mapping that is based on relational similarities than heuristic reasoning that is more based on superficial matches (Bach 2011; Jones & Casulli 2014).

According to the growth director the later foreign market opportunities are based on very analytical market research, which is based on statistics; *"We used three main categories, where we had 16 parameters. For example, we were interested about (such foreign market factors as) customers, barriers and enablers, the most potential customers, the market size in relation to population, the market size compared to leaders, the digital maturity of healthcare consumers, the connections with the stakeholders, the efficiency of the healthcare, AI readiness index, digital maturity of healthcare providers and their IT budgets, the role of e-health, the readiness of the decision makers to buy AI software and their willingness to adapt it in hospitals."* He explains that they want to have *"a holistic picture"* of different markets based on these variables, that provide *"ranking"* for each market option. It can be argued that the later market research represents Evan's (2006) mentioned transformation from heuristic early stage reasoning towards more analytical reasoning logic, which in this case is based on statistics.

While the growth director was asked how and why they ended up using their analytical market research method he explained following; *"We needed a strategic investigation to this go to market planning. It was first a little unclear and we knew that there are some competitors somewhere, but we wanted to have quantitative analysis to get clarity to the issue. In fact, the scoring system was adopted from a thesis."* The growth director clarifies that the thesis was based on his personal contact, as the author is his friend from the time he lived in Stockholm. This example represents an exploitation of analogical reasoning, because the director has been able to find a high level of correspond between his friend's thesis and the company B's marketing research needs (Jones & Casulli 2014). In other words, this market research opportunity is based on inductive structure mapping, while this specific experience has been

exploited to solve a general type of market research problem (Locke 2007; Bach 2011; Jones & Casulli 2014).

However, during the later stage of the interview the director states; *“I assume that without this specific thesis we would had relied on my supervisors experience by creating our own framework to the market research. The idea was to exploit all possible data in order to create a ranking system... ..which determined the direction of our sales.”* Therefore, the way the company found this specific thesis and the corresponding analogy, was not solely based on the effectuation type of logic, wherein the contingencies are exploited, but the company’s goal was to find that kind of solution in the first place, which rather refers to causation type logic on the background (Sarasvathy 2001). This becomes even more clear when the describes more their way of working; *“It is not enough in our company to go with the short-sighted judgements, but it rather belongs to the company’s values and ways of working that while we lead based on data, our arguments should be also based on data.”* He also adds; *“When we are building the better healthcare for end customers based on data, it would be inconsistent to ignore this in supporting business functions. It is deeply in connection with organisational values and culture.”* This way, it appears to be that the company has so called script in their organization culture, which means in practice that the data-based thinking determines individuals’ mundane behaviour in the organization (Abelson 1981). It could be even argued that in this case *“the data”* as a category is so called *“metascript”* because it has a deep role in company’s business and, for example compared to the definition of *“preventive healthcare”*, it provides more fundamental explanation in which the company’s offering is based on at least from the technological perspective (Abelson 1981). Therefore, analogical reasoning strongly related to the company’s way of doing business, while the international market research solutions are based on the logic adopted from the company B’s core offering (Jones & Casulli 2014).

Moreover, the growth director highlights that they did not rely on their data parameters as standards; *“While we used the ranking system, we did not adapt it directly, for example in the UK. Their markets are relatively centralized and they have the NHS (National Health*

*Service) so that is like hunting a mammoth. Despite the ranking (of the UK market) was good, which is important, there have been a couple of strong competitors before us and for this reason it is not an ideal land for us. Also, the fact that the markets are centralized heavily around one actor (customer) is not an ideal situation. Moreover, as one of our competitors had a strategic position there, we used the ranking system as a supporting tool, which can be adapted (in different contexts), instead of relying on it solely.* Therefore, the fact that they considered issues outside their data parameters, shows elements of inhibiting the heuristic storage bias, which means that an individual has a limited amount of knowledge related to a certain decision, which in this case means the decision of a specific foreign market (Zhao & Chen 2014). So, although the market research method was based on analogical reasoning (Jones & Casulli 2014), it could have been also heuristic logic at the same time if the company would had relied solely on it by ignoring the knowledge outside the ranking system (Greenings 1996; Zhao & Chen 2014). However, the heuristic bias were avoided in this case (Zhao & Chen 2014).

According to the growth director the company's staff includes individuals with wide international working experience; *“Personally I have been working in international assignments in the last two jobs and these experiences have been constantly in international context. The head of the company, that includes more business orientation, has a very international way of working. Of course, our advisors and the board have international background and they have strong experience and expertise related to certain areas. Therefore, I would say that the strong background has helped us (in business) and, for example we have been able to exploit different network contacts.”* As the interviewee uses such powerful impressions as “strong” and “deep”, while he is talking about the international market experience and knowledge of their personnel, it can be interpreted that this type of knowledge has allowed them to use analogical reasoning for the company's advantage, because the knowledge has been enough analogous compared to the new international business opportunities (Chandra et al. 2009; Maitland & Sammartino 2015a,b). In other words, those powerful impressions suggest that the knowledge has not been solely the general type of one, which would only allow surface level similarities in terms of heuristic reasoning (Jones and Casulli 2014).

#### 4.2.3 Sensemaking towards employees and investors

The growth director explains that the company B has currently 25 full time employees and couple of part-time ones. He suggests that during the international first-time opportunity they had around ten employees. When it comes to the investors, the company first had Finnish small investors and a capital investment function of a legal office. Later their partner company has been also in the role of investor.

According to the interviewee the company's employees have very independent roles in the organization; *"We have a relatively self-driven organization and our teams are very independent. But of course, we have the board, the head and the team leaders in the head. I see that it (the working style of employees) is relatively independent and flexible when it comes to time and a place. We have a small organization and a flat hierarchy that also mean self-driven working style and the self-ownership of the personal working."* As the growth director mentioned that their core product is *"AI platform"*, which means that the knowledge replenishment has a remarkable role in such a high tech industry (Yli-Renko et al. 2001), this kind of organization description refers to so called *"autonomous knowledge workers"* (Lund 2009). A typical element for these workers is that they are able to fulfil organisational expectations based on their autonomous working style, without strong guidance (Lund 2009). Therefore, the company's employees cannot be seen as the traditional followers that receive a predictability from their leaders, but they are closer to the co-creators of the organization (Lund 2009; Blom & Alvesson 2015; Watts et al. 2019).

Moreover, the interviewee states; *"The guidance for employees means continuous communication between different teams and their supervisors, so we do not have such heavy processes related to decision making."* This also supports the organization sensemaking, which is based on co-creation because the word *"communication"* does not refer to a formal and hierarchical system (Lund 2019; Blom & Alvesson 2015), but it rather refers to participation and constructionist style (Lund 2019). On the other hand, the interviewee also explains; *With some issues we need a permission from the head, but mostly it is very independent."* Later he adds

that *“in small companies the head and the CEO are often involved in the sales process, particularly, at the closing stage.”* This suggests that a *“formal authority”* has also an influence in the organization to some extent (Lund 2009). Moreover, the interviewee uses the impression *“controlling the ship”*, when it comes to the role of the head and the founders.

According to the interviewee, the company has a clear vision in their organization since a very early stage of their business which can be found from company’s websites. The essential part of this is the mission to help people to stay healthy, maintain a high quality of life and prevent changeless chronic conditions. (The company B’s websites 2020) Moreover, it has been specified that the means to fulfil this mission is to exploit AI and machine learning by taking also into consideration the ethical standards of data collection (The company B’s websites 2020). Therefore, this description matches with Watt’s et al. (2019) definition of vision; *“A vision refers to an idealized future state and a plan for how this future state can be achieved.”* Moreover, this kind of vision provides predictability for followers, in order to make sense for a complex environment that these followers are dealing with (Watts et al. 2019). The predictability giving refers to causation approach, because the company has defined the outcomes of their business (Sarasvathy 2001). On the other hand, in Technology Innovator’s interview (2020) the founder mentioned having crucial skills and technology during the early stage of the company, which refers more on effectuation approach by relying on existing means (Sarasvathy 2001). It could be also argued that Sarasvathy (2001) did not mean that effectuation theory would mean using the existing means in the given form but rather exploiting them by developing the means, because she states; *“Only some means or tools are given”* in effectuation processes. For this reason, the causation approach can be argued to be in the central role in the company B’s sensemaking towards followers, although there are signs of developing the company’s means, for example by learning from the specific thesis, but this was done in the frameworks of existing means (Sarasvathy 2001).

Related to their organizational culture the interviewee explains following; *“In our culture, everyone tries to stay on time (related to daily issues) and the news flow is shared to others.*

Moreover, people tend to update their attributes and knowledge independently and the supervisors are also checking that everyone stays up to date.” He later adds; “the head group also clarifies what is expected in the organization and the active communication has an important role.” According to Weick (1995: 99) this sort of informal communication activities help individuals to make better sense to their organization than a formal information, because it provides more cues responding to environmental ambiguity. Therefore, the interviewee’s mentioned “flat hierarchy” can be seen as a factor, which helps the company’s employees to make sense to the ambiguity of the environment, because it provides a possibility for informal communication between leaders and followers (Weick 1995: 99; Lund 2009).

When it comes to the company’s finance during their international first-time opportunities (Chandra et al. 2009), the growth director explains following; “There is a combination of personal networks and events like Slush (expo for entrepreneurs in Helsinki). Moreover, we have been able to exploit the networks of our partners and we have been working in order to recognize the most potential investors, but we have also been active in contacting them.” Therefore, the company has relied on effectuation type of logic at the early stage of their business, which means using such existing means as personal contacts and networks in order to get external resources in terms of finance (Sarasvathy 2001; Johanson & Vahlne 2009; Galkina & Chetty 2015).

According to the interviewee, generally such things as “a turnover and its projections”, “existing customers and their acquisition costs”, “previous investors”, “a sales cycle” and “the USP (unique selling proposition)” are important for the investors based on his experience. He adds further; “USP is the unique thing that companies are defending, and it makes the company different from the other competition in markets. It can be for example a brand (Apple) or immaterial rights (Disney).” These different factors are particularly related to predictability, which is emphasized in Sarasvathy’s (2001) effectuation approach. This predictability means that, for example bankers rely on “target outcomes as reference points”, while they are making investment decisions (Sarasvathy et al. 1998). Moreover, the growth director

explains that the team is very important for investors; *“It is easy to make PowerPoint presentations and Excel curves that look nice, but it is extremely important what is the team that transforms the vision into reality and do the investors believe that the team can do it.”* Furthermore, the interviewee specifies that the investors are especially interested about such things in the team as *“education background”, “previous working experience”, “earlier entrepreneurship success”* and *“immaterial assets of the team”*. This suggests that it is also an alternative option for the predictability of a company by providing predictability for investors based on individuals of the team. However, as the interviewee states; *“The majority of investors are seeing the world through Excel and its models. Therefore, despite the type of the conversation (with investors), it always comes back to the numbers.”* This refers to investors’ tendency to make sense based on the elements that can predict outcomes (Saravathy et al. 1998).

#### 4.3 Case 3

A company C provides a digital platform, which purpose is to support students’ language learning and teachers’ possibilities to create study materials (The company C’s websites). According to a product demonstration video the language application is targeted primary for schools and individual learning and it also provides educators a possibility to develop study sets for their students. (Youtube 2020c) Moreover, the founder states that the idea was to create so called *“all in one solution”* as a response to existing solutions that require different tools for each language. He mentions that the company brings *“100 percent customizability”* because the user may combine the application for its school progress; for example the learning methods and the difficulty level are depended on the individual. In addition, the company uses AI in the application and their search engine provides different material depending on the category suggestions of the user.

The company has been founded in 2015 (Finder 2020) and according to the founder they have approached schools, for example in Finland, Sweden, Germany and Vietnam by this date. Therefore, the sales for education sector has been considered as the international first-

time opportunity because they represent international activities in the early stage of the company's life cycle (Chandra et al. 2009) Moreover the founder states; *"If we are able to get an acceptance from the education sector (for the solution), it will work in other areas."* This supports the role of education markets as the first opportunity discovery (Chandra et al. 2009).

#### 4.3.1 Born global characteristics

The founder of the company appears to have a strong global mindset (Knight & Cavusgil 2004; Poole 2012) as he states; *"(International markets) they have been part of the plan since very beginning, but of course we first had to validate the product (in domestic market) so it can work in the first place. As we have done the market proof in Finland, we are ready to boot it in international markets."* Taking into consideration that the founder mentioned that they headed into Nordic markets first, there are elements of Uppsala model's internationalization logic, which emphasizes going firstly to the culturally and geographically closest markets (Johanson & Vahlne 1977). Although, the company does not fulfil Sinkovics' et al. (2013) requirement of 25 percent export relation to total sales, it has had international sales within 5 years of the inception, which represents an early stage international activity in many born global studies (Eurofound 2012). Therefore, the company C as a born global provides knowledge from the early stage of international sales which may allow, particularly, details related to the early stage uncertainty of born globals (Knight and Liesch 2016). This should decrease the probability of retrospective sensemaking, which may simplify the reality in some cases (Weick 1995: 24, 28).

Moreover, when it comes to the company C's websites, they provide Finnish, English and Swedish as the language options. In addition, the demonstration video of the company's offering is exclusively in English (The company C's websites 2020). These are examples of the early stage international orientation that supports the image of global mindset (Knight & Cavusgil 2004; Poole 2012).

#### 4.3.2 Heuristic and analogical reasoning

Overall, the cognitive reasoning (Jones & Casulli 2014) seems to be varying in different stages of the company C's life cycle. In addition to this, the case shows, particularly, how the analogical reasoning can be based on business partner's knowledge as well.

When it comes to the earlier international business experience, the founder states that they did not have a very analogical experience in relation to their international opportunity (Jones & Casulli 2014); *"We did not have anybody with a personal experience related to international markets. However, I have been studying marketing and during these studies I met international students. Based on this experience I got the idea, to what kind of purposes foreigners need the language and why do they want to study it."* On the other hand, the experience related to the foreigners' language needs in Finland provided the founder an analogical knowledge related to the company's potential customers, because the company's offering is to support language learning (Jones & Casulli 2014). Moreover, the founder explains; *"I used to study Spanish with Duolingo, and I was good at it, despite I was not good (learning the language) at school."* This is another example of an analogical experience in relation to the company's offering, since Duolingo provides personalized platform-based language learning tool (Duolingo 2020). Therefore, these two experiences can be seen as examples of forming an inductive based structure mapping, because the first includes the idea of customer needs and the second includes the idea of platform-based learning that are both relevant in terms of the company's offering (Locke 2007; Bach 2011).

The founder explains following about the way the company recognized potential in international markets; *"It was an important thing to benchmark different international companies and to evaluate existing free solutions in order to specify, whether our solution brings something new compared to them (existing language tool providers). A small company like us cannot go foreign markets without clarifying its market potential first."* This suggests that the company had reached some sort of conclusion with their product at this point in order to compare their solution to the other solutions. Therefore, the fact that the company wanted to

exploit external information of different solutions suggests the intention to avoid heuristic bias (Evans 2006; Zhao & Chen 2014). These heuristic biases could be the result of relying solely on the knowledge of their product conclusion, without trying to search formal knowledge related to the issue (Zhao & Chen 2014).

The founder of the company C explains following related to their very first opportunity attempt and their first market; *“Our first actual opportunity was the pilots in Sweden and other Nordic countries. We thought that they (the markets) would work there in the same way than in Finland, but they had in many cases existing (education) materials and our platform-based thinking provides a possibility for teachers to build and develop the (education) material. However, it (the platform-based thinking) did not work well in Sweden, so we went to Vietnam with a Finnish partner. Therefore, Vietnam was our very first international market and there is a lot of potential.* When it comes to the attempt to go Swedish markets the founder specified that it was based on *“assumption”* and it was not based on any marketing research. This suggest that during this very first opportunity attempt to Sweden and Nordic countries the company was relying on heuristic reasoning, because this assumption refers to more on rules of thumb logic than more analytical logic or analogical knowledge (Rozoff 1964; Evans 2006; Jones & Casulli 2014). It could be also argued, that because they later found crucial dissimilarities related to the education material preferences, they did not have very analogical knowledge or experience of this market at the planning stage (Jones & Casulli 2014).

The founder specifies the later Vietnam opportunity; *“We ended up to Vietnam based on the partnership with a Finnish education actor, which provides education in Vietnam. It is a relevant factor in Vietnam that parents are willing to invest in post-school activities (of their kids) because the quality of schools differs widely in the country. Therefore, language centers are in big role there and some of them (the parents) may spend even half of their revenues that their kids can study languages and mathematics after a school day. In those places we have potential to success, because it is important to be able to create the material (there).”* This suggests that the founder discovered more analogical market for their concept after the attempt to the Swedish market, because the Vietnamese market provided more corresponding

customer organisations (language centers) and the partnership (the Finnish partner) for the company's offering (Bach 2011). Moreover, the founder explains that they also had Germany as a foreign market option; *"When the educators went to the German market with the software, they found surprisingly that, unlike in Vietnam, there was no internet in German schools. As our solution is based on internet browser, the possibilities of our product would have been limited to a homework function."* This suggests the company went to German markets at least partly based on heuristic logic, because the internet factor has not been considered in advance, which refers to more surface level knowledge related to this market (Jones & Casulli 2014). However, the experience in Germany had a role for the company C in order to understand more about the requirements of their target markets. This supports the view of inductive based structure mapping approach because these experiences from Sweden and Germany helped the company to understand what factors are relevant for their foreign market entries (Locke 2007; Bach 2011).

According to the founder the company exploited a marketing research in order to evaluate the Vietnamese market; *"We wanted to have some literal evidences as well in order to support a general picture (of the market). So, we cooperated with a University (in Finland), wherein students made a project for us that included 50 pages of marketing research. These students made a very good job (with Vietnamese markets) by evaluating how the markets work, how do they (the locals) spend their money, what kind of people live there and what is the price level."* Moreover, the founder explains the influence of this marketing research in a following way; *"if we had received negative results from the marketing research (related to Vietnam), we would have delayed our international market entry. At least if the legislation challenges had been more similar compared to Finland in Vietnam, we would have lost more time."* In other words, the entry to Vietnamese markets was based on more analytical reasoning than the entries to Sweden and Germany that did not include similar kind of critical market evaluation (Evans 2006). Therefore, it could be argued that during the later stage of the business, the company has moved away from the heuristic reasoning logic (Evans 2006).

Moreover, the founder emphasizes the role of the partnership in Vietnam markets; *“Our Finnish educator partner had been in Vietnam for 9 years, so they already knew how our solution would work in the country. Moreover, this partner included Finnish employees who have very similar way of thinking than we have. They are also our distributor and retailer in the market.”* It can be argued that this Finnish partner provided highly analogical knowledge for the company’s Vietnam market entry because they knew how this education sector works in this specific country (Maitland & Sammartino 2015a). This way the company C ended up using analogical reasoning, although it was not based on their experiences while the analogical knowledge was received from the external actor. Therefore, it can be said that this external analogical experience provided them a way to reach the Vietnamese market faster, which is often crucial for companies like born globals and other small companies with limited time and resource constrains (Williams 2003; Kuuluvainen 2011; Gabrielsson & Gabrielsson 2013).

#### 4.3.3 Sensemaking towards employees and investors

According to the founder of the company, they have currently the same number of employees than they had during their first international opportunity; *“We have two original founders and one coder in the company. In addition, we have couple of helping hands and one pedagogy expert in the role of teacher.”* Therefore, based on this description, they have at least no more than 10 employees in the company. When it comes to the investors of the company C, the founder mentions that they have couple of individuals and partnerships that have invested to the company.

Related to the independency of their employees, the founder states following; *“The working is very independent. 90 percent of the working is based on what we have agreed at the beginning of the week related to our projects. Everybody has their own area of responsibility and as we are located to separate cities, we have continuous remote connection based on Zoom or other communication tool due to the lack of live meetings.* Taking into consideration that the founder mentioned earlier that they are exploiting “AI” in their solution and they

have this pedagogy expert, their employees can be somewhat categorized as autonomous knowledge workers due to this independent working style (Lund 2019). This suggests the employees in the role of followers differ from the traditional follower definition of a passive subject of leadership in the company (Blom & Alvesson 2014; Lund 2019). The autonomy of their work means that they can be seen rather as co-creators of the organization with a possibility to affect the direction of the organization (Blom & Alvesson 2014). On the other hand, this kind of continuous communication connection is an effective way to make sense between leaders and followers because it provides an informal way in order to decrease organizational ambiguity for followers (Weick 1995: 99).

Moreover, the founder explains his own role in the organization: *“The role of CEO means being accountable of everything.”* He adds that it is also important to ask permission related to bigger decisions in the organization from the head of the organization; *“It is not possible to do whatever you want. Therefore, it is important to have the red line in order to have a collective view (in the organization) because otherwise everybody would want to do everything. Sometimes you have to say yes and sometimes no, but it is a normal business that you cannot do everything.”* Based on this description, the founder provides some predictability for the employees based on this *“red line”*, but it refers rather on enactment than a formal vision or strategy because the founder also states the following (Weick 1995: 30–31; Watts et al 2019); *“We have not got into that stage (vision and strategy formation) yet. We are so young firm that we are just about to make strategic updates and visions in order to provide a goal for everyone. But for now, we have been a compact team and we use to have a talkative style to do things, which determines, for example how to reach the product that we want to provide. In practice it (the communication) occurs constantly through phone calls, emails and messages.* In other words, this enactment sensemaking includes defining the organizational environment and direction rather based on such mundane actions and decisions as saying *“yes”* or *“no”* to the ideas of employees than formal visions (Weick 1995: 30–31; Watts et al. 2019).

When it comes to actual role of the employees in the company C's first-time opportunities (Chandra et al. 2009), the founder states following; *"The software development has had a big role in our internationalization. We made different language versions to international markets and tested that everything works, for example in Vietnamese. On the other hand, the (software) developers had a big role of creating the possibility to copy our materials to different languages. Moreover, I have personally worked with the sales material and business description function that are both important in order get our partner consistent with us. This has included, for example designing brochures and instructions in multiple languages and is it important that our partners are systems and similar fonts in their papers than we have. Therefore, it is, particularly, important to be able to maintain the consistency in the business."* While the founder's role appeared to be related to the commercial function and the employees were mostly focusing on technological requirements, the founder has been able to make sense towards the employees by defining what is their actual business. This refers to some sort of vision, although the company did not have the written one at this point. (Watts et al. 2019) In other words, the founder set some frameworks for their organization by putting their business into words and determining what is important in terms of their business consistency (Weick 1995: 4–5). It could be argued that this way, for example the software developers may understand what is important in terms of the product solutions, when they are given the frameworks of business concept. Due to the lack of formal written vision, the sense-making in this case can occur through enactment, while the founder has provided some predictability for the employees based on the decisions related to business description and consistency (Weick 1995: 30–31).

According to the founder, the company's investors are the result of *"hard work and networking"*, which is specified in the following way; *"When you have done a year of work by going to places where you need to be as a start-up, talking about the product, trying to push the product forwards and keeping the customers pleased, you have a good mix (in order to get investors)*. Therefore, a proactiveness can be seen as a crucial factor from the entrepreneur orientation perspective for the company C. In other words, this kind of proactiveness like

going to the right places to promote the product has worked in order to reach the investors in the first place. (Lumpkin & Dess 1996)

When it comes to the actual ways to make sense the first-time opportunities to company's investors (Chandra et al. 2009), the founder states following; *"It is important that the product actually works for its purpose, but there must be also scalability, which means that the product can rather become a big concept for million people than staying the limited concept. It is also important to have the international view because it is relatively difficult to get the investors to the business that is limited to domestic market. In our case, it is not enough to sell the product licenses to schools, but we need to find different ways to earn money with the product.* Therefore, the global mindset appears to be important for the company C's investors meaning that the global markets must be part of the planning since the beginning of the concept planning (Knight & Cavusgil 2004; Poole 2012). This may support Sarasvathy's et al. (1998) view of investors that emphasizes target outcomes and the knowledge of expected returns, which in this case means that the investors need the knowledge global possibilities with the product because it allows higher expected returns than domestic markets. In other words, it is important for the company to support the investors' sensemaking about the international nature of their concept and the higher target outcomes compared to domestic possibilities (Sarasvathy et al. 1998; Navis & Clynn 2011).

In order to respond to the ambiguity of the early stage international business (Gabrielsson and Gabrielsson 2013), the founder mentions that it is important in their case to be able to show *"the growth numbers of users and turnover (for investors)"*. He later adds following; *"I believe that the most crucial factors for investors are that you are able to get users, it (the product) actually works, people are interested about it and the product is growing instead of dropping curves. It is also an important sign (for investors) that you are able generate turnover already based on the product that is still on progress. This shows particularly that the product is good already on the idea level, which allows the investors to join the concept as early adopters, although the concept is not at least perfect at this stage."* Based on this statement, the founder is focusing on existing means in terms of effectuation theory, in order to

make sense to the company's investors (Saravathy 2001; Navis & Clynn 2011). More specifically, this means the company provides predictability for the investors based on such early-stage knowledge as user growth, turnover and the functionality of the (prototype) product (Saravathy 2001; Navis & Clynn 2011). Therefore, this could be seen an example of effectuation and causation approaches as complementary logics (Sarasvathy 2001).

#### 4.4 Cross-case analysis

The intention of this cross-case analysis is to support the understanding of the different cases, by focusing on similarities and differences between the cases. The theoretical emphasis in this chapter is in the differences between the knowledge and experiences from the cognitive reasoning perspective and the differences between the ways the case companies are reducing ambiguity and providing predictability from the sensemaking perspective. Moreover, the similarities related to these issues will be also analysed.

##### 4.4.1 Heuristic and analogical reasoning

An important difference between these three cases from the cognitive reasoning perspective (Jones & Casulli 2014) was their pre-knowledge and experience related to the industry and international business issues. While, the company B had individuals with specific industry expertise and international business experience already in the early stage of their life cycle, the companies A and C did not have wide knowledge at least related to these both issues in the early stage of their life cycles. Although, the company C had a pedagogical expert and coders in the company they did not have high level of international business experience in their organization at the early stage. In the company A's case at least the founders had some international business experience, but they did not have much industry specific knowledge or entrepreneurship experience in the beginning. When it comes to the cognitive reasoning, the level of pre-knowledge and experience has influence on the internationalization of a firm (Jones & Casulli 2014; Maitland & Sammartino 2015a,b). Therefore, the lack of pre-knowledge often means that an individual is relying on heuristic processes that generates the

content for the later analytical reasoning (Evans 2006). Based on this, it could be argued that in the company B's case the heuristic processes occurred already before the company's foundation, which allowed them to exploit more analytical and analogical reasoning in the early years of the company. In the companies C and A some of these heuristic processes had occurred before their foundation but related to some issues the heuristic reasoning was still needed.

It seems that the heuristic reasoning was at least partly abandoned in all the cases during the later years of business. In the company A's case this meant that as they got more experience related to their industry and they know what they want, it helps them to get better results from the marketing researches. Moreover, when the company was "*digging*" opportunities from different industries in the early stage, it helped them to map their solutions based on analogical needs from different industries in the later stage. These both examples can be seen as an inductive structure mapping, wherein experiences help an individual to form the key elements of an opportunity (Bach 2011; Jones & Casulli 2014). When it comes to the company C, their knowledge of the ideal market opportunity increased based on their first foreign market entries. For example, the experiences related to language learning materials in Sweden and the internet requirements in Germany helped them to specify the requirements of the ideal foreign market. Therefore, the company was able to use separate experiences in order to find analogies between the needs of the market and the product requirements (Jones & Casulli 2014). Moreover, the company B was able to develop their foreign market selection after the first international opportunity in Sweden towards more analytical method. When the Sweden entry was mostly based on the founder's reasoning of language, cultural and geographical distance issues, the later opportunities were recognized based on data parameters. By comparing these different methods, it can be said that the data analysis includes less possibilities for heuristic bias, because the data parameters leave less chances for relying on individual knowledge as a standard (Greening et al. 1996). It can be concluded based on these similarities in different cases that Evan's (2006) view about pre-stage heuristic processes before more analytical processes can be observed in practise in this research.

Despite, it was mentioned in the theoretical background part that heuristic and analogical reasonings occur solely on the mind of individual (Jones & Casulli 2014; Maitland & Sammartino 2015a), all the cases include surprisingly an example, wherein an individual is aware of analogical knowledge for their market opportunity that is outside the organization. In the company A this meant that the entrepreneur was aware of the importance of exploiting the knowledge from outside industry consultant. In other words, the founder was attempting to exploit analogical knowledge to their opportunity from the cognitive capabilities of an outside individual (Maitland & Sammartino 2015a). In the company C the same phenomenon occurred when the entrepreneur was aware of their partner organization's analogical knowledge in relation to the company's opportunity (Jones & Casulli 2014). In this case, the outside knowledge was actually exploited in practice, while the partner used the analogical knowledge compared to the company C's concept in order to implement distribution and retailer functions. When it comes to the company B, this kind of outside analogical knowledge to the business opportunity came from the friend of the growth director. In this case the growth director was able to recognize the knowledge from his friend's thesis, which was analogical for the company's marketing research function (Jones & Casulli 2014). However, in all the cases the companies' individuals were in a key role in order to recognize the possibility for analogical knowledge exploitation in the opportunity (The companies B and C) or problem (The company A) (Jones & Casulli 2014; Maitland & Sammartino 2015a). In other words, the external party did know not at least in the first place that their knowledge was analogical for the specific company from the opportunity recognition perspective (Chandra et al. 2009), when the initiative came from the companies.

An interesting finding from the company C's case was the way the company was inhibiting heuristic bias in analogical reasoning-based marketing research method. This occurred by inhibiting the availability and storage heuristics that would have been the result of relying the research method as a standard, without taking into account the information outside the parameters (Greening et al. 1996; Zhao & Chen 2014). This may suggest that heuristic and analogical reasoning cannot at least totally occur as substitutes for each other. Instead, analogical reasoning can occur in some cases by relying on heuristic biases, if there is crucial

external knowledge available, which has not been exploited by the individual. However, the same observation cannot be made at least directly from the other cases, and therefore it cannot be argued about the prevalence of this issue.

#### 4.4.2 Sensemaking towards employees and investors

When it comes to the general characteristics of employees in the case companies, it can be argued that the working style in these companies is very independent and the decisions are often based on expertise of a specific issue (Lund 2019). Therefore, the “*sense-giving*” premises in the cases were not based on the traditional follower image of the individuals that are solely subordinates in the organization, but the definition of the follower is closer to the organizational co-creator (Lund 2019; Albu & Wehmeier 2014; Blom & Alvesson 2014). This leads to the issue that while the case analyses focus on the sensemaking phenomenon from predictability giving and ambiguity reduction perspectives (Sarasvathy 2001; Baran & Scott 2010; Rabinovich & Kacen 2010; Watts et al. 2019), this kind of approach somewhat simplifies the reality in the context of independent knowledge workers (Lund 2019).

The case companies had many different ways to make sense for their followers about their international first-time opportunities (Chandra et al. 2009). The company A provided predictability for their followers by highlighting their employees’ domestic market experiences of the company’s business operations and the sensemaking was also based on enactment style, wherein the sense is made retrospectively from the previous actions (Weick 1995: 30–31). This occurred, for example by evaluating the issues that worked and did not work during the foreign market entries. Therefore, the company’s sensemaking had signs of effectuation logic, which in this case meant that the firm was able to adjust their knowledge based on their foreign market entry trials and the possible failures related to them (Sarasvathy 2001). In the company B’s case, the company provided predictability for followers mainly in terms of written vision and continuous informal communication between managers and teams. The written vision in the early stage of the business suggests that they had somewhat clear idea of their service in terms of causation logic (Sarasvathy 2001; Read & Sarasvathy 2005).

Moreover, the continuous communication can be seen as a way to reduce organizational ambiguity for followers. It can be argued that the managers in the company B are adjusting their vision-based sensemaking, by proving a possibility for everyday communication, which means that employees are receiving more cues of the vision compared to the formal knowledge. (Weick 1995: 99) When it comes to the company C's sensemaking towards their employees, the company did not have a formal vision in the early stage of the business. Rather, the founder of the company had an enactment-based sensemaking style in the organization, wherein the founder's decisions about employees' procedures defined the direction of the organization (Weick 1995: 30–31). Moreover, their employees knew what to do during the first international opportunities, mostly based on their specific expertise. This suggests that the effectuation logic makes sense in the organization, because the employees are relying on their existing means in the opportunity creation process (Sarasvathy 2001).

All the cases supported causation type predictability giving, particularly, in terms of expected returns in order to get finance from the investors (Sarasvathy et al. 1998; Sarasvathy 2001). Therefore, the case companies emphasized such numeric predictability as turnover/size of the business, number of existing customers/product users and business growth numbers. However, in all cases the existing networks or partnerships were also exploited in order to get finance, while existing histories with the partners provided some predictability for the investors. This supports the prediction in chapter 2.3.3 related to effectuation logic's central role in the born globals sensemaking towards their investors (Sarasvathy 2001; Gabrielsson & Gabrielsson 2013; Galkina & Chetty 2015). Similarities in the company A's and the company B's sensemaking were that they both mentioned the plausibility based on the team, which was at least important for smaller investments. The common method for the companies B and C was so called "*networking*", wherein investors have been proactively sought from different events. This suggests that the entrepreneurial orientation has a relevant role for early stage born globals, while they are seeking finance (Lumpkin & Dess 1996). The difference between these cases was that the company A appeared to be the only company that mentioned the public assistance as their finance method. This is a surprising finding because this type of assistance may increase the export performance especially in small firms (Sousa

and Bradley 2009). Based on these cases, the effectuation logic has been exploited in order to provide predictability for investors. Therefore, if the companies did not have very specific prediction numbers, they tended to rely on such prediction tools that they already had, for example based on the experiences in existing relationships or the plausibility of the team. It could be argued that the cases highlight the complementary nature of effectuation and causation theories from the sensemaking perspective (Sarasvathy 2001), while the predictability may be given to some extent based on effectuation logic.

## 5. CONCLUSIONS

In this chapter the most relevant theoretical and empirical findings will be summarized in order to provide answers for the research questions. Moreover, the implications to the existing theory and managerial issues will be explained in this chapter as well as the research suggestions for the future.

### 5.1 Sensemaking of born globals in international context

The sensemaking phenomenon includes multidimensional meaning that can explain for example mental processes, purpose giving for every-day actions, categorization, organizational resource allocation and creation of mutual understanding (Morine-Dershimer 1987; Weick 1995: 6, 30–31; Sarasvathy 2001; Maitland & Sammartino 2015a,b). When it comes to the business context, the sensemaking has an important role of giving predictability and decreasing ambiguity for the different stakeholders of a company (Bettiol et al. 2012; Watts et al. 2019). When such young companies as born globals, that face complex international environments, are lacking the business predictability, the conclusion can be made about born globals' harder premises to go international markets compared to more mature firms (Val-laster & De Chernatony 2005; Reuber et al. 2018).

The empirical findings of this study suggest born globals give sense to their investors and followers often by relying on causation, effectuation and enactment logics (Weick 1995: 30–31; Sarasvathy 2001; Albu & Wehmeier 2014), in order to create early-stage international opportunities (Bettiol et al. 2012). The causation logic is, particularly, crucial in terms of different prediction numbers, while the born globals are convincing their investors about their early opportunities. In addition to the causal predictability, the effectuation logic may also create the predictability for stakeholders indirectly, for example based on the experiences of existing relationships, existing working procedures and roles in the organization. Therefore, the results support particularly the nature of causation and effectuation as complementary sensemaking logics among born globals (Sarasvathy 2001). In other words, the effectuation

approach in some cases works as a predicting tool for a future. The enactment logic in opportunity creation means that the company rationalizes its directions based on their everyday decisions and communication (Weick 1995: 30–31; Bettiol et al. 2012). The enactment logic can provide a predictability in the organization instead of formal visions, but it may also adjust and support the formal vision. Moreover, the effectuation logic can in many cases work as a premise for entrepreneurial sensemaking towards the employees, when the employees have an independency to work independently in the area of their existing expertise (Lund 2019).

## 5.2 Heuristic and analogical reasoning among young born globals

As heuristic and analogical reasonings provide cognitive models in order to understand entrepreneurial opportunity recognition, they both describe a way to exploit the existing knowledge and experience related to the new opportunity (Chandra et al. 2009; Jones & Casulli 2014; Maitland & Sammartino 2015a,b). The literature suggests that these reasoning logics can explain entrepreneur's decision making in international context (Jones & Casulli 2014; Maitland & Sammartino 2015a,b), while a specific individual has often a remarkable role of decision making in entrepreneurial firms (Dimitratos & Jones 2005; Bettiol et al. 2012). While the heuristic processes occur often when the individual has not much pre-knowledge of a certain issue (Evans 2006), the analogical reasoning requires analogical knowledge in relation to a new situation (Maitland & Sammartino 2015a). Therefore, the cognitive reasoning type can be argued to be depended on the experiences and knowledge of the international entrepreneur.

The empirical findings show that heuristic processes occur likely in the early stage of opportunity recognition, when the company does not have pre-knowledge or existing experiences about the foreign market or the industry (Evans 2006; Chandra et al. 2009). Born globals use the heuristic reasoning, for example by making some of the early stage internationalization decisions based on intuition and deduction-based rules (Jones & Casulli 2014). However, the analogical reasoning also occurs during born globals' international first-time opportunities

(Jones & Casulli 2014; Chandra et al. 2009), for example in terms of proactive learning (mapping different foreign markets) and partnership-based knowledge. Moreover, in some cases the analogical reasoning is the result of personal experience (personal contacts or personal problems), that accidentally responds to the needs of international markets. Therefore, this kind of knowledge or experience that is not necessarily related to entrepreneurship, foreign market or industry issues, can be surprisingly analogical in relation to international market opportunities. In addition, the heuristic and analogical reasonings can occur simultaneously, because analogical reasoning can be based on heuristic bias.

### 5.3 Managerial implications and limitations of the study

As this study suggests that enactment has a crucial role in terms of sensemaking in young born globals (Weick 1995: 30–31), it can be argued that informal discussion should be an important managerial tool from the follower perspective, particularly, for companies that lack written visions or strategies (Weick 1995: 99). Moreover, the young born globals should consider how can they give sense to their investors in terms of causation type of predictability (Sarasvathy 2001; Albu & Wehmeier 2014), because it appears to be in a key role while the companies are seeking finance, which is not based on existing relationships. When it comes to the role of cognitive reasoning the managers need to often rely on heuristic reasoning, as the companies do not always have analogical knowledge in relation to international opportunities (Evans 2006; Maitland & Sammartino 2015a). For this reason, managers of young born globals should try to recognize at least some of their heuristic bias related to their decision making (Greening et al. 1996; Zhao & Chen 2014), in order to avoid setbacks in the foreign operations.

The limitations of the study are related to the limited number of case companies and interviewees as well as the limited amount of the secondary data that was used in this research. Based on only three case companies, strong generalizations cannot be made from the empirical part and more secondary data or interviews would help in order to get more holistic

image of the cases. Moreover, as the thesis considers cognitive reasoning solely from heuristic and analogical reasoning perspective, it may simplify the reality.

#### 5.4 Theoretical implications and suggestions for the future research

This study provides a cognitive perspective to the born global phenomenon, which supports the understanding of born globals' reasoning during their early years (Jones & Casulli 2014; Knight & Liesch 2016). Therefore, the major implication to the existing theory is that the study focuses on the practical examples related to the exploitation of heuristic and analogical reasoning in the business context. Moreover, the study considers the international first-time opportunities from the sensemaking perspective by taking into consideration the effectuation theory as a background logic for entrepreneurial firms (Sarasvathy 2001; Rasmussen et al. 2001; Chandra et al. 2009). From this perspective, the implication to the existing literature is to consider the sensemaking phenomenon from the early stage opportunity creation perspective. When it comes to the results, the study supports the complementary logic of causation and effectuation approaches (Sarasvathy 2001), as well as the role of heuristic processes as the pre-stage reasoning form (Evans 2006). Moreover, the study supports the role of enactive sensemaking during the early years of born globals (Weick 1995: 30–31; Gabrielsson & Gabrielsson 2013).

As the study is limited to the Finnish born globals, the international first-time opportunities could be later studied in other countries in order to clarify, whether cultural dimensions have influence, for example on the way to handle the early stage ambiguity of the international business (Hofstede 1980). Moreover, as this study provides solely the heuristic and analogical logic as the examples of cognitive reasoning, the studies in the future could prove alternative forms of cognitive reasoning. When it comes to the sensemaking phenomenon among born globals, it could be studied more how the sensemaking changes from the born globals earlier years in comparison to the later years. Finally, due to the central role of enactive sensemaking related to the results of this study (Weick 1995: 30–31), it could be studied

whether it occurs solely on such young and small firms as born globals, or does it occur in large and mature companies as well.

## LIST OF REFERENCES

- Albu, Oana Brindusa & Stefan Wehmeier (2014) Organizational Transparency and Sense-Making: The Case of Northern Rock. *Journal of Public Relations Research*. 26:2, 117–133.
- Alvesson, Mats & Martin Blom (2015). Less followership, less leadership? An inquiry into the basic but seemingly forgotten downsides of leadership. *M@N@Gement*. 8:3, 266–282.
- Andersson, Svante (2011). International entrepreneurship, born globals and the theory of effectuation. *Journal of Small Business and Enterprise Development*. 18:3, 627–643.
- Arenius, Pia, Viveca Sasi & Mika Gabrielsson (2005). Rapid internationalisation enabled by the Internet: The case of a knowledge intensive company. *Journal of International Entrepreneurship*. 3:4, 279–290.
- Bach, Theodore (2011). Structure-mapping: Directions from simulation to theory. *Philosophical Psychology*. 24:1, 23–51.
- Baran, Benjamin E. & Cliff W. Scott (2010). Organizing Ambiguity: A Grounded Theory of Leadership and Sensemaking Within Dangerous Contexts. *Military Psychology*. 22, 42–69.
- Bettioli, Marco; Eleonora Di Maria & Vladi Finotto (2012). Marketing in SMEs: the role of entrepreneurial sensemaking. *International Entrepreneurship and Management Journal*. 8:2, 223–248.

- Bingman, Christopher & Steven J. Kahl (2013). The process of schema emergence assimilation, deconstruction, unitization and the plurality of analogies. *Academy of Management Journal*. 56:1, 14–34.
- Bhowmick, Sanjay (2015). They look while they leap: Generative co-occurrence of enactment and effectuation in entrepreneurial action. *Journal of Management and Organization*. 21:4, 515–534.
- Blom, Martin & Mats Alvesson (2014). Leadership On Demand: Followers as initiators and inhibitors of managerial leadership. *Scandinavian Journal of Management*. 30:3, 344–357.
- Calof, Jonathan F. (1994). The Relationship Between Firm Size and Export Behavior Revisited. *Journal of International Business Studies*. 25:2, 367–387.
- Casey, Sarah R. & Robert T. Hamilton (2014). Export performance of small firms from small countries: The case of New Zealand. *Journal of International Entrepreneurship*. 12:3, 254–269.
- Chetty, Sylvie; Ojala, Arto & Leppäaho, Tarja (2015). Effectuation and foreign market entry of entrepreneurial firm. *European Journal of Marketing*. 49:9/10, 1436 – 1459.
- Cerceau, Juliette; Nicolas Mat; Guillaume Junqua; Liming Lin; Valérie Laforest & Catherine Gonzalez (2014). Implementing industrial ecology in port cities: international overview of case studies and cross-case analysis. *Journal of Cleaner Production*. 74, 1–16.
- Cummings, Louise (2014). Informal Fallacies as Cognitive Heuristics in Public Health Reasoning. *Informal Logic*. 34:1, 1–34.

- Daniel, Elizabeth M.; MariaLaura Di Domenico & Seema Sharma (2015). Effectuation and home-based online business entrepreneurs. *International Small Business Journal*. 33:8, 799–823.
- De Souza, Robert; Mark Goh; Balan Sundarakani; Wong T. Wai; Keith Toh & Wu Yong (2011). Return on investment calculator for RFID ecosystem of high tech company. *Computers in Industry*. 62:8, 820–829.
- Dimitratos, Pavlos & Marian V. Jones (2005). Future directions for international entrepreneurship research. *International Business Review*. 14:2, 119–128.
- Duolingo (2020). [online] [cited 27.2.2020] Available from the Internet: <URL:<https://www.duolingo.com/>>
- Etemad, Hamid (2004). Internationalization of Small and Medium-sized Enterprises: A Grounded Theoretical Framework and an Overview. *Canadian Journal of Administrative Sciences*. 21:1, 1–24.
- EU-Startups (2019). Copenhagen-based app Too Good To Go raises a further €6 million to eliminate food waste. [online] [cited 22.7.2019] Available from Internet: <URL:<https://www.eu-startups.com/2019/02/copenhagen-based-app-too-good-to-go-raises-a-further-e6-million-to-eliminate-food-waste/>>
- Eurofound (2012). Born global: The potential of job creation in new international businesses. Publications Office of European Union, Luxembourg.
- Evans, Jonathan St. B. T. (2006). The heuristic-analytic theory of reasoning: Extension and evaluation. *Journal Psychonomic Bulletin & Review*. 13:3, 378–395.

- Fells, Ray; Helen Rogers; Peters Prowse & Ursula F. Ott (2015). Unraveling Business Negotiations Using Practitioner Data. *Negotiation and Conflict Management Research*. 8:2, 119–136.
- Finder (2020). [online] [cited 27.2.2020] (The URL will be given exclusively to the supervisor of the thesis)
- Freeman, Susan; Kate Hutchings & Sylvie Chetty (2012). Born-Globals and Culturally Proximate Markets. *Management International Review*. 52:3, 425–460.
- Gabrielsson, Peter & Mika Gabrielsson (2013). A dynamic model of growth phases and survival in international business-to-business new ventures: The moderating effect of decision-making logic. *Industrial Marketing Management*. 42:8, 1357–1373.
- Galkina, Tamara & Sylvie Chetty (2015). Effectuation and Networking of Internationalizing SMEs. *Management International Review*. 55:5, 647–676.
- Gentner, Dedre & Keith J. Holyoak (1996). Reasoning and Learning by Analogy. *American Psychologists*. 52:1, 32–34.
- Gillham, Bill (2000). *Case study research methods*. London: Continuum. \*106 pages. \*ISBN 0 8264 4796 1.
- Gioia, Dennis A.; Kevin G. Corley & Aimee L. Hamilton (2012). Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology. *Organizational Research Methods*. 16:1, 15–31.
- Hernes, Tor & Sally Maitlis (2010). *Process, Sensemaking, and Organizing*. Oxford: Oxford University Press. \*326 pages. \*ISBN 978-0-19-959456-6.
- Hite, Julie M. & William S. Hesterly (2001). The evolution of firm networks: From emergence to early growth of the firm. *Strategic Management Journal*. 22:3, 275–286.

- Hoffstede, Gert (1980). Motivation, leadership, and organization: Do American theories apply abroad? *Organizational Dynamics*. 9:1, 42–63.
- Holmlund, Maria; Sören Kock & Vladimir Vanyushyn (2007). Small and Medium-sized Enterprises' Internationalization and the Influence of Importing on Exporting. *International Small Business Journal*. 25:5, 459 – 475.
- Johanson, Jan & Jan-Erik Vahlne (1977). The Internationalization Process of the Firm—Model of Knowledge Development and Increasing Foreign Market Commitments. *Journal of International Business Studies*. 8:1, 23 – 32.
- Johanson, Jan & Jan-Erik Vahlne (2009). The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. *Academy of International Business*. 40:9, 1411–1431.
- Jones, Marian V. & Lucrezia Casulli (2014). International Entrepreneurship: Exploring the Logic and Utility of Individual Experience Through Comparative Reasoning Approaches. 38:1, 45–69.
- Jones, Oswald & Hongqin Li (2017). Effectual entrepreneuring: sensemaking in a family-based start-up. *Entrepreneurship & Regional Development*. 29:5/6, 467–499.
- Kalafsky, Roman V. (2017). Exporting programs and SME market choice: evidence from North West England. *Geojournal*. 82, 1135–1144.
- Karagozoglou, Necmi & Martin Lindell (1998). Internationalization of small and medium-sized technology-based firms: an exploratory study. *Journal of Small Business Management*. 36:1, 44–59.
- Kirzner, Israel M. (1997). Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of Economic Literature*. 35:1, 60–85.

- Knight, Gary A. & Peter W. Liesch (2016). Internationalization: From incremental to born global. *Journal of World Business*. 51:1, 93–102.
- Knight, Gary A. & Tamar S. Cavusgil (2004). Innovation, organizational capabilities, and the born-global firm. *Journal of International Business Studies*. 35:2, 124–141.
- Kraus, Sascha; Thomas Niemand; Moritz Agelsberger; Alicia Mas-Tur & Norat Roig-Tierno (2017). Antecedents of International Opportunity Recognition in Born Global Firms. *Journal of Promotion Management*. 23:3, 386–406.
- Kuuluvainen, Arto (2011). Dynamic capabilities in the international growth of SME: Case study from Finland. *ICSB World Conference Proceedings; Washington*. 1–28.
- Lahiri, Aditi (2000). *Analogy, Levelling, Markedness*. Berlin: De Gruyter Mouton 2000. \*385 pages. \*ISBN 3-11-016750-6
- Locke, Edwin A. (2007). The Case for Inductive Theory Building. *Journal of Management*. 33:6, 867–890.
- Lumpkin, G. T. & Gregory G. Dess (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*. 21:1, 135–172.
- Lund, Anne Kamilla (2019). Leading knowledge-workers through situated ambiguity. *Scandinavian Journal of Management*. 25:3, 1–10.
- Luo, Yadong & Rosalie L. Tung (2007). International expansion of emerging market enterprises: A springboard perspective. *Journal of International Business Studies*. 38:4, 481–498.

- Maitland, Elizabeth & Andre Sammartino (2015a). Decision making and uncertainty: The role of heuristics and experience in assessing a politically hazardous environment. *Strategic Management Journal*. 36:10, 1554–1578.
- Maitland, Elizabeth & Andre Sammartino (2015b). Managerial cognition and internationalization. *Journal of International Business Studies*. 46, 733–760.
- Manktelow, Ken & Man Cheung Chung (2004). *Rationality, rational analysis, and human reasoning*. East-Sussex: Psychology Press. \*382 pages. \*ISBN 0-203-50693-6
- Martin, Silvia L. & Rajshekhar (Raj) G. Javalgi (2016). Entrepreneurial orientation, marketing capabilities and performance: The Moderating role of Competitive Intensity on Latin American International New Ventures. *Journal of Business Research*. 69:6, 2040–2051.
- McClary, LaKeisha & Vincente Talanquer (2011). Heuristic Reasoning in Chemistry: Making decisions about acid strength. *International Journal of Science Education*. 33:10, 1433–1454.
- Minzberg, Henry (1990). The design school: Reconsidering the basic premises of strategic management. *Strategic management journal*. 11:3, 171–195.
- Minzberg, Henry (1999). Reflecting on the strategy process. *Sloan Management Review*. 40:3, 21–30.
- Morine-Dersheimer, Greta (1987). Informal theory and instructional practice: Sensemaking makes sense. *Theory Into Practice*. 26:1, 59–66.
- Navis, Chad & Mary Ann Clynn (2011). Legitimate distinctiveness and the entrepreneurial identity influence on investor judgments of new venture plausibility. *Academy of Management Review*. 36:3, 479–499.

- Nummela, Niina; Sami Saariketo; Päivi Jokela & Sharon Loane (2014). Strategic Decision-Making of a Born Global: A Comparative Study From Three Small Open Economies. *Management International Review*. 54:4, 527–550.
- Okreglicka, Małgorzata; Iwona Gorzeń-Mitka & Claudia Ogrean (2015). Management challenges in the context of a complex view - SMEs perspective. *Procedia Economics and Finance*. 34, 445–452.
- Poole, Robert (2012). Global Mindset: An Entrepreneur's Perspective on the Born-Global Approach. *Technology Innovation Management Review*. 2:10, 27–31.
- Rabinovich, Merav & Lea Kacen (2010). Advanced Relationships Between Categories Analysis as a Qualitative Research Tool. *Journal of Clinical Psychology*. 66:7, 698–708.
- Rasmussen, Erik S.; Tage Koed Madsen & Felicitas Evangelista (2001). The founding of the Born Global company in Denmark and Australia: sensemaking and networking. *Asia Pacific Journal of Marketing and Logistics*. 13:3, 75–107.
- Read, Stuart & Saras D. Sarasvathy (2005). Knowing What to Do and Doing What You Know: Effectuation as a Form of Entrepreneurial Expertise. *The Journal of Private Equity*. 9:1, 45–62.
- Reuber, Rebecca A.; Gary A. Knight; Peter W. Liesch & Lianxi Zhou (2018). International entrepreneurship: The pursuit of entrepreneurial opportunities across national borders. *Journal of International Business Studies*. 49:4, 395–406.
- Rozoff, Donald (1964). Heuristic. *The Accounting Review*. 39:3, 768–769.
- Runde, J. H. (1985). Theory and History in Marketing: a Comment. *Managerial and Decision Economics*. 6:3, 183.

- Sarasvathy, Saras D. (2001). "Causation and effectuation: towards a theoretical shift from economic inevitability to entrepreneurial contingency" *Academy of Management Review*. 26:2, 243 – 263.
- Sarasvathy, Saras D.; Nicholas Dew; Stuart Read & Robert Witbank (2008). Designing Organizations that Design Environments: Lessons from Entrepreneurial Expertise. *Organization Studies*. 29:3, 331–350.
- Sarasvathy, Saras D. & Nicholas Dew (2013). Without judgment: An empirically-based entrepreneurial theory of the firm. *The Review of Austrian Economics*. 26:3, 277–296.
- Saunders, Mark; Philip Lewis & Adrian Thornhill (2007). *Research methods for business students*. Edinburg Gate Harlow: Pearson Education UK. Fourth edition. \*624 pages. \*ISBN 978-0-273-70148-4.
- Schweizer, Roger; Jan-Erik Vahlne & Jan Johanson (2010) Internationalization as an entrepreneurial process. *Journal of International Entrepreneurship*. 8:4, 343–370.
- Schwens, Christian & Ruediger Kabst (2011). Internationalization of young technology firms: A complementary perspective on antecedents of foreign market familiarity. *International Business Review*. 20:1, 60–74.
- Shane, Scott & S. Venkatamaran (2000). The promise of entrepreneurship as a field of research. *The Academy of Management Review*. 25:1, 217–226.
- Sinkovics, Noemi; Rudolf R. Sinkovics & Ruey-Jer Jean (2013). The internet as an alternative path to internationalization? *International Marketing Review*. 30:2, 130–155.
- Silver, Robert (2017). Software simplified. *Nature*. 546, 173–174.

- Sousa, Carlos & Frank Bradley (2009). Effects of Export Assistance and Distributor Support on the Performance of SMEs: The Case of Portuguese Export Ventures. *International Small Business Journal*. 27:6, 681–701.
- Stake, Robert E. (1995). *The art of case study research*. Thousand Oaks CA: Sage Publications. \*175 pages. \*ISBN 0-8039-5766-1.
- Sullivan Mort, Gillian; Jay Weerarwardena & Peter Liesch (2012) Advancing entrepreneurial marketing - Evidence from born global firms. *European Journal of Marketing*. 46:3/4, 542–561.
- Talouselämä (2016). Supercell ei petä: Pelitalo takoi 2,1 miljardin liikevaihdon. [online] [cited 15.7.2019] Available from Internet: <URL:<https://www.talouselama.fi/uutiset/supercell-ei-peta-pelitalo-takoi-2-1-miljardin-liikevaihdon/b6fc4294-c1d7-375e-af10-a7301b6dd52d>>
- Technology Innovators (2020). [online] [cited 11.2.2020] (The URL will be given exclusively to the supervisor of the thesis)
- The company A's websites (2020). [online] [cited 1.2.2020] (The URL will be given exclusively to the supervisor of the thesis)
- The company B's websites (2020). [online] [cited 11.2.2020] (The URL will be given exclusively to the supervisor of the thesis)
- The company C's websites (2020). [online] [cited 25.2.2020] (The URL will be given exclusively to the supervisor of the thesis)
- Vallaster, Christine & Leslie De Chernatony (2005). Internationalisation of Services Brands: The Role of Leadership During the Internal Brand Building Process. *Journal of Marketing Management*. 21, 181–203.

- Van Balen, Timo; Murat Tarkci & Ashish Sood (2018). Do Disruptive Visions Pay Off? The Impact of Disruptive Entrepreneurial Visions on Venture Funding. *Journal of Management Studies*. 2-40.
- Wallin, Arto; Kaisa Still & Katja Henttonen (2016). Entrepreneurial Growth Ambitions: The Case of Finnish Technology Startups. *Technology Innovation Management Review*. 6:10, 5–16.
- Walker, Carolyn L. (1987). Qualitative Research Methodology. *Journal of Pediatric Oncology Nursing*. 4:1-2, 51.
- Watts, Logan L.; Logan M. Steele & Michael D. Mumford (2019). Making sense of pragmatic and charismatic leadership stories: Effects on vision formation. *The Leadership Quarterly*. 30:2, 243–259.
- Weick, Karl E. (1995). *Sensemaking in Organizations*. Thousand Oaks, California: Sage Publications. \*231 pages. \*ISBN 0-8039-7176-1.
- Wentrup, Robert (2016). The online–offline balance: internationalization for Swedish online service providers. *Journal of International Entrepreneurship*. 14:4, 562–594.
- Williams, Jasmine E. M. (2003). Export information use in small and medium-sized industrial companies An application of Diamantopoulos' and Souchon's scale. *International Marketing review*. 20:1, 44–46.
- Yang, Man & Peter Gabrielsson (2017). Entrepreneurial marketing of international high-tech business-to-business new ventures: A decision-making process perspective. *Industrial Marketing Management*. 64: 147–160.

- Yin, Robert K. (1994). *Case study research : design and methods*. Newbury Park CA: Sage Publications. Second edition. \*170 pages. \*ISBN 0-8039-5662-2.
- Youtube (2020a). [online] [cited 1.2.2020] (The URL will be given exclusively to the supervisor of the thesis)
- Youtube (2020b). [online] [cited 11.2.2020] (The URL will be given exclusively to the supervisor of the thesis)
- Youtube (2020c). [online] [cited 25.2.2020] (The URL will be given exclusively to the supervisor of the thesis)
- Zhao, Le & Xu Chen (2014). Heuristic bias in children's reasoning in the personal domain. *Social Behavior and Personality*. 42:4, 635–643.
- Zhou, Lianxi; Bradley R. Barnes & Yuan Lu (2010). Entrepreneurial proclivity, capability upgrading and performance advantage of newness among international new ventures. *Journal of International Business Studies*. 41:5, 882–905.
- Żur, Agnieszka (2015). Opportunity Identification and Creation as Factors of Firm Internationalisation. *Entrepreneurial Business and Economics Review*. 3:2, 25–39.

## **APPENDIX 1. The Pre-Questions for Case Companies**

Pre-Phone call:

Introduction (Name, University, Purpose of the call)

1. Can you consider yourself as a born global company? (international activities within 5 years of inception and 25% of sales to international markets or a company in the early stage of internationalization)

If yes:

2. Do you have a possibility to participate to a Skype or Zoom interview that considers your company's international first-time opportunity (takes approximately 0,5-1 hour)?

If yes:

3. Can you send your skype name via email? (If the person has no skype, ask about zoom meeting or face-to-face meeting)

Reserve time for the meeting and send to questions in advance to the person's email address.

## **APPENDIX 2. The Interview Questions for Case Companies**

### General Questions:

1. Can I record this interview?
2. What is your position in the company?
3. Can you briefly tell about your company's primary business?

### Heuristic and analogical reasoning:

4. How are you creating a value for your company in international markets?
5. What was the first time you started to think international markets as a possibility for your company?
6. What kind of market opportunity was your first international one? Did you need to make changes compared to your possible domestic business?
7. Why did you go to international markets in the first place? What was your judgment based on? (Intuition or careful analysis?)
8. What kind of factors were crucial for this kind of opportunity recognition (experience, relationship, knowledge)?
9. Did you have any kind of existing experience related to international markets? How did it differ from the new opportunity?

10. Did you consider many alternative markets or ways to go into markets before going to a specific market area? (How quickly were you able to decide a specific market and a way to go in this market?)

11. Were you doing any market research at the early stage of this opportunity? Why or why not? What kind of research? How much?

Sensemaking towards employees and investors:

12. How many employees does your company have?

13. How independent is their working? What kind of instructions do they need in their daily work?

14. What kind of role did the company's employees had in the first international opportunity?

15. Did they have any kind strategy or vision to follow in this opportunity?

16. How did they know what was expected from them during the first international market opportunity?

17. What kind of investors does the company have?

18. How were these investors found and contacted in the first place?

19. What was important in the first place for your investors when you were convincing them about the company and its future?

20. How did you make sense about your first international opportunity for your investors?  
(How did you handled the uncertainty related to the early stage of the business?)

21. How much predictability related to your business plan did your company provide for your investors about this opportunity?

Secondary data:

22. Do you have any written document related to your first international market opportunity that could be used in this research to analyse the opportunity recognition? (for example, minutes of meetings or annual reports)