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How working as a Global Virtual Team affects capability-building in a Born Global

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Abstract

This thesis aims to understand how a Born Global company that works as a Global Virtual Team, operates to develop and reconfigure the organizational processes and routines, in order to stay competitive in a dynamic environment. It is examined from a Resource Based View, with a focus on the resource-picking and capability-building mechanisms. In the case study company the Global Virtual Team is a crucial tool to enable them to reach competitiveness through a resource-picking strategy. However, being a Global Virtual Team also clearly sets the rules for how capabilities can be developed. There is a balance between being able to generate competitiveness and managing the Global Virtual Team, which becomes prominent when they grow.

Keywords: Global Virtual Team, Born Global, Resource Based View, Dynamic Capability Approach, competitive advantage, resource-picking, capability-building

Table of contents

1. Introduction.....	1
1.1 Research gap.....	2
1.2 Outline of the thesis.....	3
2. Theoretical framework.....	4
2.1 Born Globals.....	4
2.2 Global Virtual Teams.....	4
2.3 Resource Based View.....	5
2.4 Resource-picking and capability-building.....	6
2.5 Dynamic Capability Approach.....	7
2.6 Learning Capability.....	9
2.7 Connection to entrepreneurial theory.....	10
2.8 Positioning.....	11
2.9 Measuring Dynamic Capabilities.....	12
3. Method and research design.....	15
3.1 Research approach.....	15
3.1.1 Case study and rigid framework.....	16
3.2 Case study company.....	17
3.3 Data collection.....	19
3.4 Interview guide.....	19
3.4.1 Interview framework.....	20
3.4.2 Alternative views.....	21
3.5 Coding.....	22
4. Data presentation and analysis.....	23
4.1 Axial and selective codes.....	23
4.1.1 Sub-ecosystems.....	24
4.1.2 Shaped by the external environment.....	25
4.1.3 Complete incorporation of a global perspective.....	26
4.1.4 Relationships between the selective codes.....	27
4.2 Resource-picking versus capability-building.....	28
4.3 Capability-building to address the dynamic environment.....	29
4.4 Global Virtual Team challenges and resource-picking strategy.....	31
4.5 Current challenges and future growth.....	33
4.5.1 Lack of clarity about responsibilities and tasks.....	33
4.5.2 Difficulties with knowledge tracking when using virtual communication.....	34
4.5.3 Various use of different tools.....	35
4.5.4 Internal goal-setting.....	35
4.5.5 Communication on a higher level.....	36
5. Final assessments.....	38
5.1 Conclusion.....	38
5.2 Limitations and future research implications.....	40
6. References.....	42
7. Appendix.....	48
A.1 Dynamic Capability framework.....	48
A.2 Description of the interviewees.....	50
A.3 Interview Guide.....	51
A.4 Open-, Axial- and Selective coding.....	56

1. Introduction

To enter a market as a new venture is challenging. As a new player on the market acquiring the right resources can be difficult and on top of that companies have to figure out how to survive in today's dynamic and fast changing environment. There is pressure to be highly adaptive, fast learning and to quickly develop sustainable competitive advantages (Chamber of Commerce of Metropolitan Montreal, 2009). This thesis will focus on how a global new venture can develop competitiveness by picking resources and building capabilities to keep the routines and processes up-to-date in the dynamic environment. The Resource Based View will be used to understand how this is done in practice. More specifically, the Dynamic Capability Approach will be highlighted, which is developed from the Resource Based View. It is growing in popularity among researchers but has also received criticism on different aspects such as: inconsistency in definitions, limited empirical backing, gap between theory and practical implications as well as lack of micro foundations (MacInerney-May, 2012). The reason that the framework is still used is due to the unit of this study, Born Globals. As has been mentioned, they are new players in the market with limited resources and operate in a dynamic environment. Therefore, the classical strategic frameworks for how to build competitiveness are not as relevant since they focus on the external environment and relative position in the market. Instead, how Born Globals acquire and exploit resources to build competitiveness towards established companies are of interest. This thesis also intends to reduce the current critique by building on the empirical base and increase the practical application. Other critical points, such as the micro foundations, will also be addressed.

Born Globals is a growing phenomenon where companies as a strategic choice are becoming global at infusion. Commonly they work with Global Virtual Teams, which can be defined as teams that are interdependent in task management and where the members are geographically dispersed. When they are to accomplish tasks they use technology-mediated communication rather than face-to-face interaction (Zakaria et al., 2004). Through the use of Global Virtual Teams the Born Globals can assemble competitive competences that would not be possible within the local sphere. With the

unique competences they have the possibility and the prerequisites to build competitive advantage (Jantune et al., 2008). From a Resource Based View, the key of discovering and developing your sustainable competitive advantage lies in if you can accumulate and use your resources in the most efficient way (Wernerfelt, 1984). In this process of building long-term competitiveness, knowledge is considered to be one of the most important resources to accumulate (Killingsworth & Xue, 2016). However, resource-picking is a strategic choice that works well in theory. In order to build competitive advantage you also have to exploit the competences and build firm specific capabilities (Teece et al., 1997).

The purpose of this thesis is to understand how a Born Global company operates in a dynamic environment to build up competitive advantages, when working as a Global Virtual Team.

The general assumption is that there are positive and negative aspects when working as a Global Virtual Team, which will affect the adaption to the external environment. In order to build sustainable competitive advantages the company must recognize and stay in line with opportunities and environmental changes (Reeves & Deimler, 2011). It puts pressure on the internal structures and processes (Suarez & Oliva, 2005). In order to accomplish the purpose of this thesis, it is important to understand how the case study company is affected by, and how it approaches the pros and cons of, working as a Global Virtual Team.

1.1 Research gap

The Resource Based View and other theories developed from it, such as the Dynamic Capability Approach, are becoming more influential in the field of entrepreneurship. They have been used by the entrepreneurial research domain to understand the different elements that determine entrepreneurial venture performance. The Resource Based View is developed from the field of strategic management and is mostly based on studies on large, established organizations. There is yet no clear understanding of how resources are conceptualized and used differently in established organizations compared to practicing entrepreneurs in smaller, less established ventures and what implication the differences might have. Therefore, there is a need for more research to

be conducted on new ventures in order to widen the application of the Resource Based View (Kellermanns et al., 2016).

Further, the Resource Based View has limited empirical studies (Alvarez & Busenitz, 2001; Arend & Bromiley, 2009; Breznic & Lahovnic, 2016). It has recently been appointed that there is a need to contextualize the Resource Based View in order to be able to continue to apply the theory in the very practical domain of entrepreneurship (Kellermanns et al., 2016). By conducting a case study this thesis will be able to contribute to the empirical base in the research field. This thesis will contextualize and give results that can be useful for practitioners, compared to the current vastly theoretically researched field. Since the phenomenon of Born Globals and the use of Global Virtual Teams is increasing in today's dynamic and rapidly changing environment (Zakaria et al., 2004), this research is highly relevant.

1.2 Outline of the thesis

The next chapter will go through the current theoretical framework that explains how competitive advantages are created in the Research Based View. The thesis will present current theoretical knowledge to expand the understanding of the field, and thus not develop the theoretical frames. Born Globals, Global Virtual Teams and other relevant concepts will also be explained further in the same chapter. The methodology will be presented next. In chapter four the data from the empirical study is outlined together with the analysis. Finally, conclusions, future implications and limitations to the study will be presented.

2. Theoretical framework

2.1 Born Globals

A Born Global sees the world as one market and as one source of supply with little local variation. The reason for a company to apply a global strategy varies. To create better sales opportunities, resource-, efficiency- or for strategic asset seeking are some examples (Lynch, 2014). The amount of Born Globals has increased dramatically the recent years due to different forces that have simplified the establishment of the strategy. Nowadays there are lower costs for travel and communication, less barriers of trade, investments and financing as well as a continuous migration of talent. Another highly influential factor is whether or not the CEO and the management team of a company have a positive attitude towards an international entrepreneurial orientation. Usually a positive attitude comes from the conviction that the foreign markets are essential to the company's core business. Limited financials and tangible resources are yet two other driving forces that bring the often small and self-financed new ventures into the strategy of becoming a Born Global (Haar, 2012). As mentioned in the introduction, knowledge assets and the Resource Based View are becoming more commonly applied in the research of sustainable competitive advantage. With the globalization and technological revolution, creation of sustainable competitive advantages through resource assimilation becomes more relevant (Killingsworth & Xue, 2016).

The tech sector is being overrepresented in the Born Global companies. Knowledge based industries are represented by companies characterized by knowledge, creativity and resourcefulness. They are known for fostering many international entrepreneurial organisations. Born Globals are also very prominent when it comes to making use of technology that facilitate communication and information sharing to increase the effectiveness and efficiency of the company (Haar, 2012).

2.2 Global Virtual Teams

A Virtual Team consists of members that are not situated in one physical location. By using technology companies overcome the barriers of time and space (Nader Ale et al., 2009). This thesis focus on Virtual Teams with global presence and therefore the term Global Virtual Team is used. In order for a team to be able to be geographically distributed they need to be able to accomplish tasks by using technology-mediated

communication and be interdependent in task management. As the phenomenon of Born Globals, the use of Global Virtual Teams increase in importance and predictions show that they will become a more integrated part of international organizations. This means that time limited project-based employment and consulting services is substituted with full employment (Zakaria et al., 2004).

Since the members of Global Virtual Teams could be hired internationally from all over the world they are usually more diverse than most other teams. Diverse teams have an advantage when it comes to a broader spectrum of knowledge and experience while conflict and communication problems can be considered easier to handle as a homogenous team (Pinjani & Palvia, 2013). There are many challenges that come with being dispersed. For knowledge to be shared in a way that leads to learning, it is of utter importance that miscommunication is avoided. Global Virtual Teams interplay in a cross-cultural setting. This is where miscommunication often arises due to misunderstanding as well as the inability or refusal to weigh in the cultural aspect when formulating oneself to the receiver (Zakaria et al., 2004). The failure in virtual communication are linked to culture and language (Klitmøller & Luring, 2013). Trust is another important issue to consider since it is correlated to knowledge sharing but also to effectiveness. Some would argue that the depersonalized form of communication between team members might have a negative effect on the knowledge sharing culture. Though being a diverse and distributed team might be challenging, the potential wins of increased creativity, far-reaching solutions with greater perspective can be rewarding and contributing to a competitive advantage (Zakaria et al., 2004).

2.3 Resource Based View

Early strategy theories analyse the external environment and relative position in the market when building up competitiveness. A company identify their strengths and weaknesses and find minimum resource requirements to streamline production and operations. Classical examples of this are Porter's five forces or game theory where the external factors, players and dynamics are analysed for strategic advantages (Teece et al., 1997; Wernerfelt, 1984). With the emerge and establishment of the high technology industries, and the fast changing competitive environment they have brought with them, a new perspective appeared. As an alternative view of strategy,

the Resource Based View, suggests that in order for a company to become profitable and build sustainable competitive advantages, they should instead examine the controllable resources. Firms have heterogeneous and sticky assets, which are difficult to transfer to another firm due to transaction and transfer costs (Teece et al., 1997). From that starting point, they should then decide the optimal product-market activity. It is in this way companies build up barriers where competitors find themselves in a position where it is difficult and demanding to catch up (Wernerfelt, 1984). Resources are defined as “tangible and intangible assets which are tied semi permanently to the firm”(Wernerfelt, 1984:2), such as “brand names, in-house knowledge of technology, employment of skilled personnel, trade contacts, machinery, efficient procedures, capital etc.” (Wernerfelt, 1984:2). Though there is some sort of consensus regarding how to define a resource, what it exactly is that creates the competitive advantages is not.

2.4 Resource-picking and capability-building

As clarified above, the Resource Based View argues that competitive advantages lie in the company's resources. However, scholars have argued that the specific resources are not enough to develop competitive advantages. Instead, they highlight the deployment of the firm-specific resources and introduce the concept capabilities. A capability is an organization's ability to utilize resources to achieve a desired goal (Gonçalves et al., 2014; Makadok, 2001; Winter, 2003). It is a collection of routines and processes that have been developed over time, which makes them an integrated part of the firm and difficult to transfer to another company (Makadok, 2001; Pavlou & El Sawy, 2011). Routines and processes are specific activities in a firm that are enabled from the assembling of firm specific resources into clusters, which also links individual and groups together (Teece et al., 1997). The routines and processes are learned, information-based, patterned and repetitive behaviours (Winter, 2003). Thus, there is an important distinction between resources and capabilities.

Makadok (2001) has found that there are two interacting mechanisms that firms use in combination to create competitive advantage. The resource-picking approach highlights the fact that it is how a company differentiate itself with its resources that creates a superior advantage (Gonçalves et al., 2014). It is a strategic choice where knowledge is actively gathered and analysed in order to outperform the market in

resource picking (Makadok, 2001). The capability-building approach on the other hand describes the deployment of resources and development of capabilities as determining whether or not the company achieve a superior performance (Gonçalves et al., 2014). Capability-building is when a company “(...) design and construct organizational systems to enhance the productivity of whatever resources the firm acquires” (Makadok, 2001:387).

In order to analyse a Born Global company that works as a Global Virtual Team for the reason of creating competitive advantage, both resource-picking and capability-building are important mechanisms. Being a Global Virtual Team expands the resource-picking possibilities with which a Born Global aims to sets themselves ahead of competition. Capability-building on the other hand is relevant since it is argued that resource-picking in itself is not enough to gain, and foremost sustain, competitive advantages (Teece et al., 1997). The capability-building will therefore be our main focus in order to fulfil the purpose: understand how a Born Global company operates in a dynamic environment to build up competitive advantages, when working as a Global Virtual Team. However, this thesis will look into both mechanisms because it unclear whether they add or could potentially extract value from each other (Makadok, 2001). For example, working as a Global Virtual Team has its challenges, which could potentially obstruct the capability-building.

2.5 Dynamic Capability Approach

Today’s rapidly changing business environment, especially in the high tech industries, aggravate decision making as the complexity of decisions is high at the same time as there is pressure to act quickly (Zahra, Sapienza & Davidsson, 2006; Pavlou & El Sawy, 2011; Wu & Hsu, 2013). From the Resource Based View, Teece et al. (1997) developed the Dynamic Capability Approach. In order to become “a winner on the market”, firms also have to develop capabilities to effectively coordinate and redeploy internal and external competences. A company must be flexible and change with the tides to stay competitive. A Dynamic Capability is defined as “the ability to integrate, build and reconfigure internal and external competencies to address rapidly-changing environments” (Teece et al., 1997:516). The firm specific capabilities cannot simply be assembled through markets but have to be developed internally, which is why they are not easily replicated (Gonçalves et al., 2014).

Even if the Dynamic Capability Approach is explained as above, some aspects are still not clear, especially from a practical point of view; (1) what a Dynamic Capability is, (2) how it comes to be and (3) how to classify and measure it. The first will be explained next, the second in section 2.6 and the third in section 2.9.

Dynamic Capability Approach highlights resource renewal, how routines and processes build firm specific capabilities as well as the ability to adapt them to the rapidly changing environment (Teece et al., 1997; Gonçalves et al., 2014). In order to fully understand the Dynamic Capability Approach and how it has developed from the Resource Based View, Pavlou & El Sawy (2011) use the concept Operational Capabilities. Operational Capabilities are the ways things are done in a company, i.e. the collections of routines and processes that form the day-to-day activities. Dynamic Capabilities are the reconfiguration and ability to change and adapt the Operational Capabilities to the dynamic environment and keep them competitive (Pavlou & El Sawy, 2011; Gonçalves et al., 2014). The Operational Capabilities are referred to as zero-order and the Dynamic Capabilities as first-order. Therefore, the Dynamic Capabilities could be compared to Schumpeter's creative destruction, where the old resource combinations are destroyed to give room for new, more efficient and relevant ones (Easterby-Smith & Prieto, 2008; Pavlou & El Sawy, 2011). This separation of Operational and Dynamic Capabilities and definition of zero- and first-order capabilities will be applied in this thesis due to its advantageous practical implications for the case study. Many other previous papers and definitions are empirically problematic since they are mostly theoretically explained (Pavlou & El Sawy, 2011).

Teece et al. (1997) point out that the view of Dynamic Capabilities opens up for new implications regarding heterogeneous resources and profitability. Skill acquisition, management of knowledge and knowhow as well as learning become fundamental strategic issues. It is also pointed out that there is a distinction between human capital, which is the knowledge each individual in the company possesses, and structural capital, which lies in the firm and not the specific individuals.

2.6 Learning Capability

Many scholars have acknowledged the importance of knowledge (as a resource) in the Dynamic Capability Approach. Teece (1998) recognize the importance of management of knowledge, competences and other intangible resources and the ability to create, integrate, transfer and use the same in order to obtain competitive advantage. Cohen & Levinthal (1990) define the ability to exploit external knowledge as recognizing the value of outside information and knowledge and apply it to commercial ends. They argue that this ability is vital for a firm to be innovative. Gold et al. (2001) highlights the importance of knowledge management, which is the managing of a company's explicit and tacit knowledge, in order for companies to develop competitive organisational capabilities.

A company's ability to absorb external knowledge is dependant on the collection of its individual members. However, just because the individual possess and accumulate the knowledge it does not mean that it is transferred into the company. The capability therefore lies in the ability to integrate the knowledge the individuals possess (Cohen & Levinthal, 1990). Integration of knowledge is defined as the processes that the organization implements to convert individual knowledge into the collective intellect (Felin & Powell, 2016). Further, it does not only regard knowledge between the company and the external environment but also include the transfer and sharing of knowledge within the company and across different subunits. Communication is here a crucial factor. There is also a trade-off between inward looking (effective communication and sharing) and outward looking (assimilating and exploiting new knowledge). The inward looking knowledge integration has little diversity but increase sharing efficiency due to homogeneity, while the outward looking has high diversity but complicates the integration and sharing (Cohen & Levinthal, 1990).

Easterby-Smith and Prieto (2008) propose a framework that integrates Dynamic Capabilities and knowledge management. The framework recognizes learning as the connecting link and argue that the Learning Capability is a source of Dynamic Capabilities. Therefore, Learning Capability is named a second-order capability. The relationship is as follows: the second-order capability (learning) is the source of the first-order capabilities (Dynamic Capabilities) that in turn creates new competitive zero-order capabilities (Operational Capabilities). Second-order capabilities, the

learning-to-learn routines, explain how the first-order capabilities come to be, develop and adapt. They are important in the long-term development of the competitive advantages since they make sure the first-order capabilities are not outdated. However, indications are found that the second- and first-order capabilities could have a substituting effect on the reconfiguration of the zero-order capabilities (Schilke, 2014). This rationalizes that learning should be included in this thesis to be able to reflect upon this effect.

2.7 Connection to entrepreneurial theory

Entrepreneurs recognize opportunities in the market where there is a heterogeneity in the perceived value of resources between different agents. These opportunities are exploited with the purpose of making a profit (Shane, 2000). Entrepreneurial theory therefore share traits with the Resource Based View. They both emphasize the heterogeneity in resources and share the focus of resources as main unit of study. Although the two research fields in the previous to the majority have been studied separately, integrating research is motivated (Alvarez & Busenitz, 2001).

In a new venture the individual entrepreneur has a larger impact on the business (Wiklund & Shepherd, 2009). Connected to that, Zahra et al. (2006) found another reason of why a combination of entrepreneurship research and Dynamic Capability Approach is of interest. They highlight the prominent role of the leadership and/or the entrepreneur in the build up of Dynamic Capabilities and that they are in the centre of the development process. Alvarez and Busenitz (2001) propose that entrepreneurs have a specific capability to organize specialized knowledge and understand the value in doing so; something that the individuals (experts) who possess the knowledge (resources) do not. Boccardelli and Magnusson (2006) found that the entrepreneur can be the source of the Dynamic Capabilities in the early stages, with their strategic choices highly influencing the process. They therefore call for more research to be conducted on the integration of entrepreneurship and the Dynamic Capability Approach. By examining a Born Global company and how they develop competitiveness from resource-picking and capability-building, this thesis will contribute to the application of Resource Based View and Dynamic Capability Approach in new venture settings.

New ventures and established companies operate under different circumstances and use resources in various ways (Kellermanns et al., 2016). The differences affect the capability-building and the reason why the Dynamic Capabilities are developed. For example, for a new venture the underlying reason could be survival and to achieve legitimacy. The established company, on the other hand, purposely aim to create routines to reconfigure the Organizational Capabilities to stay competitive. Younger firms might also have an advantage in the development of Dynamic Capabilities due to that they have less to “unlearn”. Further, approaches such as experimenting, learning-by-doing and trial-and-error learning facilitate the development of Dynamic Capabilities, which usually are used more frequently in new ventures due to lack of previous experience. Though, a more planned and routinized reconfiguring processes, which would be more likely in older companies, could potentially be more effective. Growth is another important aspect to consider. New ventures that experience rapid growth in the early years face the challenge that in order to stay effectively functional, the internal processes must be reconfigured. Doing so would demonstrate the ability to reconfigure and adapt the organizational processes, which is how the Dynamic Capabilities are defined. To conclude the argument just presented, the Dynamic Capability Approach is mainly conducted on established firms and their specific processes to reconfigure the Operational Capabilities. Though, if the definition of Dynamic Capabilities is “the ability to integrate, build and reconfigure internal and external competencies to address rapidly-changing environment”(Teece et al., 1997:517), new ventures that try to achieve legitimacy or handle high growth in a dynamic environment would also illustrate development of Dynamic Capabilities. The difference is just the underlying reason to do so (Zahra et al., 2006).

2.8 Positioning

Throughout the evolution in the strategic management research the Resource Based View is the last developed and is one of the current influencing viewpoints when it comes to analysing the success and failure of firms. This viewpoint is based on the work of Wernerfelt (1984) and Barney (1991). The firm is analysed from a macro level rather than looking at specific aspects that are relating to individual behaviour in the firm. However, in relation to the external environment, the firm’s internal factors are given more attention. The strengths and weaknesses are being assessed rather than the environmental opportunities and strengths (Ángel Guerras-Martína et al., 2014).

The viewpoint of this thesis is rooted in the Resource Based View. Therefore, the focus will be on the company on a macro level as well as on the internal factors rather than the external environment. Previous criticism has been directed towards the lack of consideration regarding the individual's impact to the collective constructs (Felin & Foss, 2005; Abell et al., 2008). The reasoning behind choosing the macro departure and not focus on a micro perspective, such as micro foundations, which focus on the individuals' impact and interaction (Argote, 2013), is to be able to incorporate the strategic choices. The purpose is to understand how a Born Global works to build competitive advantage, where strategic choices plays an important role. This thesis is though not excluding the micro perspective entirely. By including second-order capabilities, the individuals' contribution is taken into consideration. This is due to the emphasis on integrating individual knowledge into the collective intellect (Cohen & Levinthal, 1990).

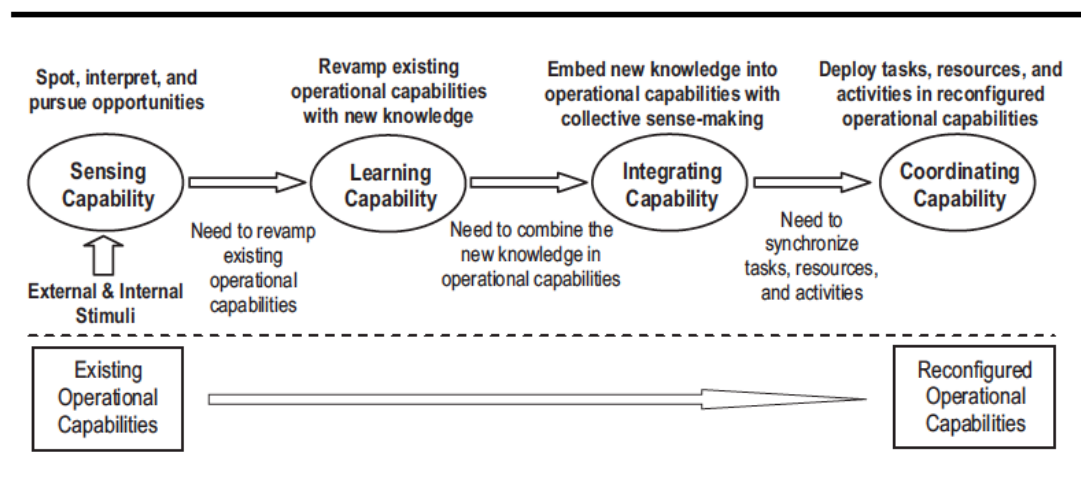
On the subject of strategy, this thesis uses an emergent strategy approach. Since this thesis investigates a Born Global company that finds itself in a highly changing environment, a deliberate strategy approach is not suitable. The deliberate strategy approach works best in a setting where the future is more or less possible to predict. Further, in today's world most of the plans made fail. This is partly due to the fact that the boundaries in between different industries are more fluid and therefore it is extremely difficult to make a strong case industry analysis. Thus, an emergent strategy where an organisation is constantly learning and adopting intentions in line with the changing reality and what works in practice makes more sense (Moore, 2011).

2.9 Measuring Dynamic Capabilities

Dynamic Capabilities is a complex concept to research and operationalize, but the routines that builds them up are identifiable and have with other purposes individually been empirically researched (Eisenhardt & Martin, 2000). To contribute to the development of a more tangible view of Dynamic Capabilities, Pavlou and El Sawy (2011) have developed a framework as a foundation to measure them. The framework aims to conceptualize, operationalize and enable the measurement of Dynamic Capabilities in order to address inconsistency in previous literature, the lack of precise definition, empirical grounding and measurement as well as reduce complexity.

In the article by Pavlou & El Sawy (2011) the difference between Operational- and Dynamic Capabilities is highlighted. The Dynamic Capabilities are the abilities through which the existing Operational Capabilities are reconfigured. The Dynamic Capabilities are divided into four different main capabilities, which have measurable processes and routines. These capabilities are sensing, learning, integrating and coordinating. These four are described as tools to reconfigure the Operating Capabilities (see appendix A.1).

Figure 1: A framework for representing the proposed measurable model of dynamic capabilities.



Pavlou and El Sawy (2011), p. 243

Sensing capability is described as the ability to spot, interpret, and pursue opportunities in the environment where the basic routines are generating-, disseminating- and responding to market intelligence. Learning capability includes the ability to update existing Operational Capabilities with new knowledge. The four underlying routines of the proposed learning capability are; acquiring-, assimilating-, transforming-, and exploiting knowledge. Integrating capability include the ability to combine individual knowledge into the unit’s new Operational Capabilities. Because new knowledge created by learning is mostly owned by individuals, it must be integrated to a collective level. Its routines are contribution-, representation- and interrelation of individual input within the business unit. Coordinating capability include the ability to orchestrate and deploy tasks, resources, and activities in the new Operational Capabilities. This require effective coordination of tasks and resources

and synchronization of activities. The routines of importance are: assigning resources to tasks, appointing the right person to the right task, identifying complementarities and synergies among tasks and resources and orchestrating collective activities (Pavlou & El Sawy, 2011).

3. Method and research design

The purpose of this thesis is to understand how a Born Global company manage to build up the competitive advantage, when working as a Global Virtual Team. The intention is to contribute to the practical application of the so far heavily theoretical research field. This thesis will conduct a case study to provide results that can be useful for managers in order to understand what Dynamic Capabilities are as well as how they could be addressed and developed in their business. It enables them to adopt strategies and organizational designs to better suit the environment (Felin & Powell, 2016). As for the contributions to the theoretical body the objective is to bring a wider knowledge when it comes to the understanding of how the usage of resources can be applied as a differentiation strategy. The strategic choices differentiates depending on the varying prerequisite of a company. This is a specific case of a Born Global company, which is a new and quickly emerging phenomenon (Zakaria et al., 2004). It has its own specific characteristic and thus it is important to understand how it relates to previous knowledge.

3.1 Research approach

Dynamic Capabilities is a rather debated phenomenon, which has mainly been described theoretically. Since the purpose of this thesis is to understand a specific phenomenon and bring new insight into the research field an exploratory study is taking place (Saunders et al., 2009). This approach is useful when trying to find unexpected linkages between different concepts in the empirical research (Gioia et al., 2012).

In this specific research neither the deductive approach (used in qualitative studies) nor the inductive approach (used in qualitative studies) are fully applicable. Since this is an exploratory study it is not suitable to have a specific hypothesis when applying the theory. Neither is it relevant to aim at theory building and draw generally applicable conclusions, since that would require a substantial amount of empirical data (Bryman & Bell, 2015). This would be outside the scope of this thesis and it is therefore left for future research. When conducting an explorative study it is important to have an open mind during the data collection. Therefore, some adjustments might be necessary, for example the interview questions and the amount of interviews might be altered (Saunders et al., 2009). There has been an

interpretation of the perceptions of the employees and the CEO of how things are done in the company to understand how they as a Born Globals makes use of being a Global Virtual Team. The thesis intend to work as an explanatory guide that can bring out new insights and understandings when it comes to this specific field of research. The purpose has therefore not been to provide the entrepreneurial theoretical field with a new theory of how to best act when a Born Global work as a Global Virtual Team.

3.1.1 Case study and rigid framework

The reasoning behind choosing one in depth case study is that it goes well in hand with the taken interpretative perspective. When collecting the data it is the perspectives of the employees' own experiences of the structuring processes that is of interest. According to the interpretative perspective the people in the organisation are the ones that socially and symbolically construct and sustain their own organizational realities. To be able to reveal the structuring and organizing processes it is of vast importance to be able to generate descriptions, insights, and explanations of events (Gioia & Pitre, 1990).

Since this thesis has a qualitative data collection and a small sample of interviewees, a full use of the inductive approach could hypothetically have been applied (Bryman & Bell, 2007; Saunders et al., 2009). The main advantage of having an inductive approach when contributing to the theorizing field is that the findings have a greater potential of being original since the data found can be interpreted and analysed in a more open manner. This is due to the fact that you as a researcher are not as limited by the already existing knowledge. When aiming to create a better understanding in a specific area you first look into the related concepts and then elaborate with new concepts and new tools, to see if these better can explain the phenomenon. It is argued that if only applying constructs in a research there might be a risk that you end up refining tools that are irrelevant (Gioia et al., 2013). However, how optimal this might sound, the phenomenon that this thesis aims to study is abstract and it is therefore not possible to apply a fully inductive approach. In this particular research an open approach with an interpretive perspective has been the base, yet with an application of a rather rigid framework. Already established concepts related to the Dynamic Capabilities have been used when gathering the data. The reason for this was to some

extent be able to measure the data. Using the framework by Pavlou and El Sawy (2011) created an opportunity to apply a measurable model that would make the data more comprehensive. Therefore a more traditional approach was applied where to a higher extent existing knowledge and construct elaboration is laying the ground for the future researchers work (Gioia et al., 2013).

Using a particular framework like this might be interpreted as rather rigid for when conducting a qualitative research. The strongest argument for applying it anyhow is due to the complexity of the phenomenon being examined. Authors such as Kraatz & Zajac (2001), Winter (2003) and Danneels (2008) argue that the definitions of Dynamic Capabilities are vague and confusing, which has also somewhat resulted in inconsistency in the definitions (Pavlou & El Sawy 2011). It has contributed to the difficulty in grasping the concept. In an attempt to address this issue Pavlou and El Sawy (2011) have reviewed the majority of current definitions. The comprehensiveness of Pavlou and El Sawy's (2011) study in regards to literature review and reconciliation of previous frameworks is the reason that this thesis uses the framework as foundation.

3.2 Case study company

The new venture Mapillary was founded in 2013. The company launched its business worldwide at the same time and the whole world is treated as one market. The business is built on a community of global crowdsourcing and their service is available everywhere. This limitless approach statutes a good example of why Mapillary is a Born Global Company. Further, the company has employees distributed all over the world and have developed routines for digital communication and tasks to be performed without the need for physical proximity. Mapillary would therefore also be an ideal example of an organization that work as a Global Virtual Team. The last reason for choosing Mapillary is that they are a high tech new venture operating in a very dynamic environment (Haar, 2012). Mapillary is what some would refer to a black swan, an unusual opportunity for access. A purposively sampling is made since the company has been selected on the basis of their ability to contribute to theoretical understanding of the subject (Bryman & Bell, 2011).

“Mapillary is a community-led service for people who collaboratively want to visualize the world with street-level photos. Anyone can contribute with photos of any place. Using computer vision, the Mapillary platform creates 3D reconstructions of places from the street-level photos for anyone to explore” (Mapillary, 2017) With crowdsourcing Mapillary creates maps that are based on in real time photos. This collaborative mapping can be done from anywhere, even in rural or off-the-beaten track, areas where the competing companies such as Google Street View cannot. Therefore they can provide a far better reach. “We are mapping ten thousands of kilometres of road using several hundred thousands of new crowd sourced images from users in 150 countries every month” (Mapillary, 2017).

In Mapillary it is not only the global employees that work as a Global Virtual Team in the daily work activities. The four co-founders are also working dispersed and they all knew from the beginning that they would not be working together in the same office. At the moment two of them are working in Malmö, but travel a lot, one works in the United States and one in China. They all had the shared vision that it was necessary to build the company distributed. They knew that for the company to be able to develop the way they envisioned they needed the best people they could find. When Mapillary hires, the talents and skills of the recruits is what matters, not where they are located. This is also a benefit that Mapillary can give their employees, the flexibility of being situated wherever they want to. Thus, they have a resource-picking oriented strategy with which they aim to be competitive.

Every year Quid makes a list of 25 unknown companies worldwide that should be considered as the most promising start-up companies right now. Mapillary has managed to be the only Swedish new venture, with a 21st position, to enter this list amongst the other dominating American companies (Söderlind, 2017).

This thesis will look into how Mapillary’s Global strategy and implementation of a Global Virtual Team has affected the way they have build up their processes and Dynamic Capabilities. It can be assumed to be more challenging to work with capability-building in a company that makes use of resources in this particular way; that is making use of geographically dispersed and digital teams. The company per se and their research-picking approach can still be considered quite unique and is

therefore interesting to investigate further. It is stated that organizations facing dynamic environments and markets are more susceptible to Dynamic Capabilities development (Gonçalves et al., 2014). Organisations that finds themselves in a fast moving environment would come to create a beneficial position if creating an open organisation with self-organising processes. For this to actually work in practice it is fundamental to have managers that are willing and able to execute this. A fast moving environment that requires constant agility, strategic innovation and market adaptation is the typical example of an environment where a company highly value its Dynamic Capabilities. The theory of Dynamic Capabilities actually came about as an attempt to explain competitive advantage in volatile industries (Felin & Powell, 2016).

3.3 Data collection

The main source of the data is semi-structured interviews that were conducted in March 2017. Data from the company's internal web and other virtual tools that are being used on a frequent level is also collected. Concepts emerge when seeing through the data and narrowing it down to something more graspable. The analysing phase of the data occurs in parallel with the data collection. This is due to that it increases the proneness to take up on new emerging themes that might be worth bringing up in later interviews. This analysing strategy with an interplay between the collection and the analysing of the data is typical for qualitative data as opposite to quantitative data (Bryman & Bell, 2011).

To be able to really understand what is going on it is important to talk to different people in the company. To get an as broad view as possible interviewees with different positions were purposely chosen, but randomly selected since their individual traits were not of importance (Bryman & Bell, 2011). By interviewing employees from different teams and with varying positions biases in subjective opinion due to culture and context is reduced. Totally seven interviews were conducted due to the time limitation; the CEO as well as six different members were interviewed. For a further description of the interviewees (positions, team, physical location etc.) see appendix A.2.

3.4 Interview guide

The interviews had an open question formulation to give room for empirical data besides our categories. The interviewees were briefly introduced to that their daily

work were of interest, especially how they manage to handle that they are part of a global company that makes use of a geographically dispersed and digital team. The interview guide is found in appendix A.3.

The interviews were semi-structured, and thus the same questions were asked to the six participating employees. Depending on the answers from the interviewees, further questions were also asked when suitable, questions that were not in the interview guide. There was an awareness to the fact that it might be necessary to adjust the questions along the way, and in the end there were some finalising questions being added. On the other hand, saving the interview with the CEO to last was a strategic choice. It was anticipated from the beginning that additional questions specifically directed to him would emerge whilst seeing through the interviews with the employees. As awaited, questions regarding the CEO's and the founding team's intentions and involvement in the build up of the different processes and routines as well as the overall strategic choices became relevant.

3.4.1 Interview framework

Pavlou and El Sawy (2011) aimed to introduce a measurable model of Dynamic Capabilities by conceptualizing, operationalizing, and measuring them. The structured interview questions for this case study were altered compared to the measurements in the framework that Pavlou and El Sawy (2011) created for their survey. Their research design was quantitative and they focused on measuring the intensity of the capabilities (sensing, learning, integrating, coordinating). This thesis is a qualitative study, and thus the research questions had to be reformulated in order to be more explorative and investigating. The understanding of the routines and patterns behind their actions is of greater importance than measuring the result of the actions. The authors argue for a generalization of the use of their model. Even though they focus on new product development there is reason to believe that the model is applicable to other contexts, levels and units of analysis. This is due to that there is not a certain area of knowledge/skills that is connected to the Dynamic Capability Approach but rather the ability to learn new ones (Pavlou & El Sawy, 2011).

3.4.2 Alternative views

Some potential substituting classifications will be presented to demonstrate some similarities and differences in order to conclude why Pavlou and El Sawy's (2011) is chosen.

Breznic & Lahovnic (2016) divide the Dynamic Capabilities into three different categories; sensing -, seizing - and reconfiguring capability. Based on their literature review, six capabilities (Managerial -, Marketing -, Technological -, R&D -, Innovation -, Human Resource Capability) were recognized as relevant. They are further analysed from the Dynamic Capabilities perspective by investigating the sensing - , seizing - and reconfiguring capability (Breznic & Lahovnic, 2016).

Gonçalves et al. (2014) categorize the Dynamic Capabilities into five different processes with varying focus: (1) managerial and organizational processes, (2) processes revealing the current attitude towards development of tangible and intangible assets, (3) processes with a focus on path dependency, (4) processes highlighting the managerial and individual aspects and (5) the sensing and seizing processes. They all cover the different capabilities in the company as well as the absorptive capacity, innovative capacity and adaptability.

Felin & Powell (2016) argue that the processes that a company applies varies depending on the opportunities in the marketplace where it finds itself. In a world of turbulent markets, it is needed to “create dynamic capabilities for sensing, shaping, and seizing new opportunities as well as creating new structures matched to the realities of the global competitive landscape” (Felin & Powell, 2016:93). Therefore it is proposed that studies on Dynamic Capabilities should consider these three aspects.

Even though it seems like different researchers use varying terminologies for Dynamic Capabilities it is clear to say that the definitions overlap. Though, what Pavlou and El Sawy's (2011) framework provides is a collected view and classification that is neither too intangible and difficult to measure in practice, such as Felin and Powell (2016) and Gonçalves et al. (2014), nor too specific, such as the Breznic and Lahovnic (2016).

3.5 Coding

The interviews are transcribed and coded for the empirical analysis. Coding is a tool that enables the analysing of the qualitative data. Without this process it can be rather difficult to interpret the data. The coding process has different emerging coding practices. Initially open codes were identified, where concepts and categories were revealed. A category is a concept that has been elaborated to the extent that it can be regarded as representing a real-world phenomenon (Bryman & Bell, 2011). After narrowing down and labelling the different categories each capability ended up with 16 to 20 open codes. During this process it is important to have an open view so that emerging themes can reveal concepts, which can be useful when drawing conclusions of the phenomenon under observation (Gioia et al., 2012). The open codes follows the framework from Pavlou and El Sawy's (2011). The rigid framework assisted in the concretization of the data and enabled the formulation of questions in order for the interviewees to be able to talk about these abstract concepts. However, in order to be able to reflect more generally when creating axial codes from the open codes, patterns beyond the four capabilities were of interest. Axial codes are created from new connections between categories, by linking the codes to emerged patterns (Bryman & Bell, 2011). Therefore, the four capabilities in the framework were from this point overseen. After constantly comparing the data, it was understood what was central and relating to the larger amount of the other categories and their attributes. From the axial codes, the selective codes emerged (Holton, 2010). The axial and selective codes will be presented and analysed in the next section.

4. Data presentation and analysis

4.1 Axial and selective codes

From the open codes, patterns to fourteen axial codes and three selective codes were found, which are presented in table 4.1. In the coding process the axial codes formed the basis for the selective codes. In order to understand how Mapillary manage to build up their competitive advantage, when working as a Global Virtual Team, the process will be presented backwards.

Table 4.1: Axial and selective codes (For a more detailed version, see appendix A.4)

Axial codes	Selective codes
Informal processes	Sub-ecosystems: Organization build up by synchronized self-organizing and self-sufficient subgroups and individuals
Synchronous work	
Trust in abilities, competences and work effort	
Autonomy and independence	
Transparency	
Static and dynamic documentation	
Knowledge sharing: Funnel principle	
Lean approach	
Attentive and responsive	
Flatness and flexibility	
Organic development	
Prioritizing: ranking tasks and work top-down	
Continuous time-view	Complete incorporation of a global perspective; the world is one market, regarding customers, their service and employees
Macro perspective and goal orientation	

4.1.1 Sub-ecosystems

Mapillary is built up by synchronized self-organizing and self-sufficient subgroups and individuals. The different teams/individuals develop their own ecosystems and contribute collectively to the overall goals of the company. All “sub-ecosystems” are autonomous but work in synchronisation with the other sub-ecosystems. The more they grow, the more interwoven they get. Compare this to the opposite, an umbrella-like structure where all subgroups would develop from and be a part of one centrally decided structure. The set of rules with routines and processes are then developed according to the decisions of the company lead (Meyerson & Martin, 1987). In most of the interviews it was expressed that the different teams have varying routines and processes and that they had organically developed after the team’s individual need. For example when it comes to how they make use of the different communication tools, every team has adapted the usage of them depending on their specific area of responsibility. Thus, there are informal processes in the company that are not centrally decided. Still though, these sub-ecosystems are highly synchronized, which enables the organization to move forward as one towards the same goals. In order to enable the sub-groups there must be trust in the other individual’s and team’s abilities, competences and work effort. Trust is highlighted by Zakaria et al. (2004) as an important aspects to create effective knowledge sharing and make use of the potential rewards of being a diverse team. Another aspect that made the sub-ecosystems apparent was the high level of autonomy and independence. These characteristics were expressed in the interviews as laying the foundation for important aspects in the company, such as resource allocation, encouragement of own initiative and high responsibility for your own tasks. In order to create a company that operates under these circumstances, it requires much from the employees. Because of this, Mapillary puts much effort into hiring the right competences; people who can manage to work under these circumstances and that can be trusted. The company further operationalize full transparency. They open up for all employees to take part of the company goals and all communication in the company is managed online.

The structure of Mapillary and their every-day routines, how it was originally formed and has evolved since then, is affected from the use of a Global Virtual Team. Since the company is globally dispersed Mapillary stresses the importance of that all communication should always be done virtually. This is to make sure that everyone

has the possibility to access all areas, at any time. Everything should be documented, statically (as basic company information on their internal webpage) or dynamically (as communication in Slack or updates on their blog), and thereby be searchable and accessible anytime. They also have a culture of knowledge sharing, all new and relevant information should be shared, so that anyone who likes to take part of it can do so. They have from that developed a funnel principle of knowledge sharing, where new information enters the company through Slack (chat-tool) and then channel through the other tools (differing depending on team) where the knowledge is sorted and directed to the right area.

4.1.2 Shaped by the external environment

Mapillary is highly reactive to the external environment in real time and is continuously shaped by the dynamics. Compare this to the opposite, a company that tries to foresee the future in order to decide the optimal strategy. Another example, a company that does not care so much about the forecasts but rather tries to shape the future, such as Apple did when they developed the iPhone. Mapillary has a lean approach to their business model where they are quick to try out new ideas and solve impending problems. A minimal viable product is launched, and from there improvements are made based on their customer's complains and wishes. This lean approach has resulted in a major customer orientation and their highly attentiveness to the external environment. To be able to be responsive Mapillary needs to be flexible, and therefore they have a flat corporate structure with few hierarchy levels. Initially they were completely flat, and they only added another level, team managers, due to convenience of their growth. It required too much time for the CEO to have everyone report to him when they were more than 20 people. Mapillary has grown organically and only developed processes when the rapid growth has required them to, in order to function properly. The organic growth has been achieved through handling pain points and problems as they arise, rather than foreseeing potential problems and work in advance. This has enabled them to grow with minimal resource requirements until the time when they can become financially sustainable. The organic growth is another example on their adaptiveness in real time rather than foreseeing or shaping their future.

Mapillary is working through a prioritizing principle where ideas and tasks are ranked after importance, from which they are then carried out top-down. By being reactive and work with minimal resources there is no time to do it all since the possibilities are endless in the external environment. Thus, even though the bottom of the list might never be reached, by having this approach they manage to stay relevant and surf on the massive wave of constant dynamic change. The prioritizing principle in Mapillary has evolved to meet the gradually increasing inflow of ideas, which is why they now have hired a project manager. His role is to facilitate and make the idea generation and implementation process more effective. An important point that becomes relevant when there is a large inflow of ideas and when a company wants to be highly responsive is what Cohen and Levinthal (1990) as well as Felin and Powell (2016) argues; the knowledge and information needs to be transferred from the individuals to the company, thus the capability lies in the integration ability. Mapillary's knowledge sharing culture, their flexibility and flat structure enables them to convert the incoming individual knowledge into the collective intellect.

4.1.3 Complete incorporation of a global perspective

Two other concepts emerged from the patterns in the case study: continuous time-view and macro perspective of the organization with a goal orientation. The two enables Mapillary to completely incorporate a global perspective where the world is seen as one market in regards to customers, their service and employees. By not being limited by geography, Mapillary can hire anyone, anywhere. This has resulted in that they work in many different time zones, which makes a normal cyclical time-view problematic. Employees would then have to adapt to one time-zone's normal working hours, thus creating inconvenient working hours and difficulties in synchronization. Instead Mapillary has developed a continuous time-view where the company is always online and its employees connect after preference and convenience. Due to that the company constantly document and share information, the employees can always get updated on what has happened when they were away. Therefore, Mapillary has created an open organisation with self-organising processes, which as Felin and Powell (2016) found, is something that organisations in a fast moving environment strategically creates to attain a beneficial position.

Mapillary operates from a holistic view. Even though most international companies also have a goal orientation that influence their everyday decisions, Mapillary has a macro perspective that influence the core of their culture and the organizational choices. All interviewees argued that the main advantage of working as a Global Virtual Team is that you can hire the best people for the job and exclude geographical limitations. Whether they all said it due to their own opinion or due to the CEO's transmission of his, does not remove the fact that the company view the labour market as one global pool of talent. This view influence everyday routines and activities. The same applies when it comes to their customers and service development. The company does not separate one market from another but view it all as one large market. Compare this to the opposite, a large international company that divides the different markets (for example European, North American and Asian market) and assign them respectively with a responsible management teams or even create subsidiaries. The macro perspective of the world market as one has formed Mapillary from the beginning. The founding team was distributed from day one and with none of them even physically being in the first country where their service got foothold, "it didn't make sense to make this into a local or national or regional enterprise" (CEO, Mapillary). The management's attitude towards creating an international enterprise has definitely influenced the formation of the company as stated by Haar (2012).

4.1.4 Relationships between the selective codes

A closer examination of the axial and selective codes reveals that there are further causalities to be found. Not only are the axial codes closely linked together within the selective codes, but both axial and selective codes are also correlated in between. The sub-ecosystems increase the attentiveness outwards, since they use and keep the diversity within the company and counteract inbreeding in knowledge. The flat structure and lean approach enables the autonomy, which keeps the company flexible. The flexibility enables them to be reactive and incorporate the information they receive from being attentive towards the external environment. Thus, being shaped by the external environment is simplified by the sub-ecosystem approach. The trade-off between outward looking (absorbing knowledge) and inward looking (knowledge integration), as Cohen and Levinthal (1990) highlight, becomes visible. In Mapillary they work to take in new knowledge from the external environment in order to avoid inbreeding of knowledge. Regarding the sharing efficiency (inward looking), the sub-

ecosystems work as facilitators. Taking in new information that is different from the current reduce the efficiency of sharing and integration of knowledge. In Mapillary the teams and individuals have developed routines to enable synchronous work. The different teams concentrate and translate the external knowledge and then share it in the company, which balance the outward looking knowledge absorbing.

Overall, for Mapillary, working as a Global Virtual Team is both the tool for being able to completely incorporate the global perspective, at the same time as it shapes the way the organization is built. To exemplify, working as a Global Virtual Team enables the continuous time-view and macro perspective, at the same time as being transparent and autonomous is a necessity to be able to effectively work as a Global Virtual Team. The macro perspective and goal orientation also make sure that the company moves forward together, despite the differing informal processes and responsibilities within the teams.

4.2 Resource-picking versus capability-building

Initially there was an uncertainty regarding whether or not there was an extracting or adding value between the two interacting mechanisms that firms can use in the creation of competitive advantage (Makadok, 2001). It was unclear if the resource-picking strategy would extract value from the capability-building, due to the challenges that follows with working as a Global Virtual Team. In the case of Mapillary resource-picking is central. Working as a Global Virtual Team expands the resource-picking possibilities for which this Born Global aims to sets themselves ahead of competition. It is seen as a strength to be able to hire talent from anywhere. The different backgrounds and geographical presence is positive for both the company per se but also for their users. Their customer base and community are international and therefore they can provide better support for them and there is always someone available. This relates back to the advantage that Pinjani and Palvia (2013) pinpoint regarding being a diverse team; having a broader spectrum of knowledge. Internally, the flexibility over their own schedules, which comes with the resource-picking approach, is much appreciated. Most of the interviewees also expressed an appreciation of being given the opportunity to go to the off sites three times a year and get to know the rest of the company in a relaxed enjoyable setting.

The off sites are a week when all employees get together physically at different causal places.

Resource-picking in itself is not enough to gain, and foremost sustain, competitive advantages (Teece et al., 1997) and therefore the main focus has been on exploring and understanding the capability-building in the company. When the interviewees were asked regarding the main cons with working in a globally dispersed team there were some aspects of the capability building that were brought up. Regarding synchronized work, when you need input from a colleague, or have to schedule a meeting, the Global Virtual Team can slow down and aggravate the process. You might need to wait longer for response or only having few overlapping working hours due to that you are in different time-zones. Direct communication is not an alternative when working as a Global Virtual Team. This can be seen as a negative thing in some situations when physical interconnection and discussions would be preferable. It is a general perception that the physical absence is something that needs to be accepted, but not something preferable due to the fact that social interactions is viewed as something positive. It would therefore be confirmed that working as a Global Virtual Team to some extent obstruct the capability-building. Though, the overall perception seems to be that the gains are more valuable than the effort to overcoming the challenges.

4.3 Capability-building to address the dynamic environment

Mapillary's zero-order capabilities, i.e. their Operational Capabilities, are neither formal nor centrally determined. There seems to be a general minimization of routines and processes as well as specific efforts to configure the same. The majority of efforts made to reconfigure and renew the zero-order capabilities were in the interviews said to be done in order to cope with the growth. Thus, Mapillary shows little planned effort to establish specific routines for adapting the zero-order capabilities to the external dynamic environment. However, as laid out, Mapillary is highly reactive and adaptive to the environment and they use experimenting, learning-by-doing and trial-and-error to keep their service relevant. Their lean approach is renewing the organization and constantly updating the way they do things. Thus, this way Mapillary gives proof of Dynamic Capabilities since they through adopting a lean approach constantly build and reconfigure routines and processes.

As Zahra et al. (2006) argue, just because a new venture does not have strategically established routines to reconfigure their Operational Capabilities, does not necessarily mean that the company does not have any Dynamic Capabilities. The findings of this thesis support this. Mapillary displays the ability to reconfigure the Operational Capabilities; it is merely how they do it (lean approach) and the underlying reason why they currently do so (growth) that differ compared to established companies. Mapillary is also still a very young company with limited previous experiences to rely on. Through their history they have gradually increased the amount of structure and processes, and thus the routinized reconfiguration might be something that will be established in the company over time.

What have been in focus in the majority of previous research on Dynamic Capabilities are the established processes and routines that reconfigure the Organizational Capabilities. As the analysis above points out, Mapillary has limited company structure and formal processes in general. Still they show high ability to reconfigure and adapt their organizational processes. Therefore, interesting is to continue the interpretation of the data together with the second-order capability, i.e. learning. Mapillary has developed a prominent learning culture, where gathering and sharing information and knowledge is pushed (Zakaria et al., 2004). In order to meet the challenges of a dynamic environment, a systematic use of different learning models to update the zero-order capabilities should be created (Zahra et al., 2006). The lean approach with repeated trials develops and reconfigures the Organizational Capabilities in Mapillary. They put higher weight on learning than routinized reconfiguring of routines. The question of whether first- and second-order capabilities are complements or substitutes therefore becomes relevant. In general, Mapillary have few processes and emphasize learning, which would support what Schilke (2014) found; that the first- and second-order capabilities mainly are substitutes in the reconfiguration of the Operational Capabilities.

At the same time, due to that Mapillary is a young company and that the Dynamic Capabilities might be developed more over time, as has been discussed before, a complementary effect could also be observed. Zahra et al. (2006) propose that the second-order capabilities (learning) mainly affect the Operational Capabilities

through improving the first-order capabilities (Dynamic Capabilities). Over time the company will gather knowledge and best practice from previous experience (learning), which will develop more reconfiguring processes and routines (Dynamic Capabilities). From this line of reasoning, the case study company indicates that the effect of the first- and second-order capabilities are complementary. It is due to the company's age that a substitution effect currently is prominent. In Mapillary's culture learning stands out, and thus the second-order capabilities seems to chronologically have developed first. Over time a more complementary and less substituting effect of Dynamic Capabilities and learning would therefore be expected to be seen, but only further research would be able to determine that.

A learning culture is usually established early on. Whether this is done or not is commonly highly dependent on the influence by the entrepreneur or management (Zahra et al., 2006). When interviewing the CEO it became clear that it was his intention to create a learning and knowledge sharing culture to be able to work as a Global Virtual Team. This also supports what Boccardelli and Magnusson (2006) found; that the entrepreneur can be the source of the Dynamic Capabilities in the early stages, with their strategic choices highly influencing the process.

4.4 Global Virtual Team challenges and resource-picking strategy

As has been concluded, working as a Global Virtual Team is both a strategic choice that enables Mapillary's overall vision, at the same time as it can also be obstructive. The purpose of this thesis is to understand how a Born Global company operates in a dynamic environment to build up competitive advantages, when working as a Global Virtual Team. Therefore, in the next sections of this chapter, the challenges and how Mapillary have addressed them will be presented further.

According to Killingsworth and Xue (2016) a Global Virtual Team faces more challenges when it comes to creating a learning culture, processes and knowledge-creating routines. Virtual team performance of the company is endangered with a scarce knowledge transfer. A Global Virtual Team needs to share its knowledge in between time-zones and between people with different cultural perspectives. This aggravates communication, which is an important aspect to overcome in a highly competitive arena. In the article by Zakaria et al. (2004) it is stated that it is more

challenging for a Global Virtual Team to build a knowledge sharing culture than if you are able to meet face to face. It is harder for those spontaneous communications where non-work information is shared and informal relationship building occurs naturally. According to Klitmøller and Luring (2013) communication processes are challenging for Born Globals and something that obstructs a learning organisation to flourish.

On the other hand some researchers state that shared knowledge culture is simplified in A Global Virtual Team. The reason is that through sharing varied expertise and different experiences of the diverse members, the intellectual power can potentially become greater (Pinjani & Palvia, 2013). Relating to the case study company, they are well aware of the potential communication difficulties. However interesting is, instead of thinking of it as a problem, Mapillary has entirely turned it into a fundamental advantage for the employees and the company. Born Globals are said to have the advantage of having an organizational flexibility (Klitmøller & Luring, 2013), which is needed for a learning organization to be able to stay on top in a situation of rapid change, in combination with adaptability and productivity (Smith, 2001). The strategy of the company is to achieve a broader knowledge pool by having no limits when it comes to whom and from where a person is hired. The most important aspect is that the right talent is found. By being flexible on the hiring and working hour aspects, they argue that they can attract skilled personnel and compete with large well reputed companies such as Google or Apple. In Mapillary the cultural aspect is seen as an advantage since it brings a broader mind-set into the company.

To facilitate the communication and to be able to utilize the resource-picking strategy, Mapillary have build their company culture on constant information sharing and transparency. Even if you sit physically together, you ought to communicate in Slack so that anyone could potentially join in. As a result, because of the transparency and information sharing culture, segregations in the company have been avoided and instead a respect for the way things are done in a different cultures has emerged. It is something valuable to the company since the customer base and the community is international as well.

4.5 Current challenges and future growth

Mapillary has developed a culture that has integrated the Global Virtual Team into the core business and enable them to use it efficiently. However, in order to understand how they address challenges that arise from working as a dispersed team, there are some further aspects that need to be taken into consideration. The company is growing quickly and for their future capability-building they will need to address these aspects. The CEO of Mapillary states that it is the way the company lets itself be shaped by its environment that makes it possible to adopt and grow fast: “If you are small and want to be fast moving, too much structure will slow you down. (...) The guiding principle is as little structure as possible”. “Another guiding principle is - the team should be as small as possible but not smaller. (...) The smaller you are, the faster you can move, the faster you can adapt and change and the more stable you are as a start-up” (CEO, Mapillary). The constant growth and adoption put pressure on the evolvement of the processes and routines. There are some factors that have to be looked over and developed further for the company to be able to continue growing in a manageable way. This is exactly what the first- (Dynamic Capabilities) and second-order capabilities (learning) is about. The aspects that will be presented next are where they have not been able to develop capabilities at this point. As mentioned in section 4.3, this can be due to the young age of the company and/or high growth. Therefore, it should not automatically be viewed as a failure in the capability-building before those conditions are considered. In the following sections four different issues will be presented.

4.5.1 Lack of clarity about responsibilities and tasks

There are varying opinions regarding where to find information about individual’s tasks and responsibilities. It gets more challenging to keep track of this as the company grows. Many of the employees that have been on board for a while, answered in the interviews that “they just know” and they can develop this “just knowing” since they get introduced to new people one at the time. However, it was also expressed that due to the lack of routines when introducing new employees this becomes increasingly difficult as the company grows to know what the new employees do. On this note, most of the interviewees said that they did not know how new employees receive the knowledge of skills and responsibilities and that they had to figure it out themselves. This is especially challenging when working as a Global

Virtual Team due to the lack of causal social interactions that are more common when you work physically together. It is also important to know who does what to avoid double work and be able to move forward together when working dispersed. The only thing the interviewees could think of if not knowing who is responsible or who has the skills you need, was that you could ask in the general channel in Slack. Some expressed a concern about the lack of routinized introductions and documentation about skillsets and responsibilities for the future growth of the company. One example of a consequence that has occurred due to this is that it can become unclear whom to assign to a specific issue and who should do the assigning. Overall, to enable a better synchronization it is important to establish processes that create a higher awareness of the other team members' skills and responsibilities.

4.5.2 Difficulties with knowledge tracking when using virtual communication

Mapillary encourage all communication to be conducted virtually. Through the funnel principle most conversations and information sharing first enter the company through the chat tool Slack, where it is then channelled through the other tools. Therefore, Slack is experienced as very “noisy” where it sometimes can be difficult to sort out or find relevant information. With their growth they have tried to solve this by creating more communication channels based on the area of interest. Still though, some of the interviewees express that it is difficult to catch the important information that passes through the general channel. Everyone is included in the general channel and it is also one of the most commonly used tools for when an employee do not know where to turn next. Thus, it is important for the employees to read in the noisy channel to catch any relevant information. There is an uncertainty regarding the effectiveness of the Slack tool since it is expressed that it is not always certain if a specific message has come through. Another concern is the difficulty to determine how to balance writing enough to understand with being concise.

The main purpose with putting everything in the chat tool is that all information should be traceable. For the information to stick in the company it is important concentrate it and make sure that information is saved in a more search-adaptable tool, such as GitHub where tasks are created and described in detail. However, this works well in theory but the employees experience that it does not work as well in practice and that it is time consuming. Some teams are better at the knowledge

tracking process. This is something that could possibly be improved by having a more central process for all the teams in the company in order to reduce the diffuseness. All the individual team members should make an effort to simplify the process in order for the others to easier find valuable knowledge.

4.5.3 Various use of different tools

There is another contributing factor; different teams prefer diverse communication and information sharing tools due to their job specifics. The different team's tasks varies in characteristics and therefore the organic development of the company has resulted in that they use different tools for different tasks. For example, GitHub, which for most teams is frequently used, is not a suitable tool when your tasks are customer oriented. Another problem can be that in order for teams to work in synchronization, there is a need for the teams to update each other. This might be more challenging for some teams where the processes are fluid and it is therefore difficult to express what has been and will be done. There are also different views of how much time should be spent on these updates to the other teams. A last aspect that became visible was the individual preferences of which communication tool that should be prioritized. Some prefer assigning tasks via email while some use Slack. A third team goes through GitHub. Due to these differences, there are sometimes things that falls through the cracks. For example, it happens that more than one person research the same information to find new knowledge. This is due to the unclearness of in which field a specific topic falls into. A more united view and agreement of what tools to use and how, could potentially be beneficial in order to address these issues.

4.5.4 Internal goal-setting

Mapillary works close to its customers and has a permeated lean approach where the follow up on customers' feedback is well established. When it comes to the accomplishments of the individual team members there are some formal routines for receiving evaluations from the employees as well. They have something called office vibe, which is a tool for giving feedback. The employees fill in a questionnaire every week regarding how they feel, if they are happy with work, how the work life balance is going and if there is anything they would like to change. On the other hand, there is an absence of formalized individual and team goals. The employees have developed their own ways of setting goals for themselves but there is no developed strategy for this when it comes to the teams. The subject has been brought up to discussion and

they have thought about introducing a strategy called OKR - often used in the tech start ups. It stands for Object Key Result where you have certain goals that you set and each of these goals have measurable key results. They have decided to put this on hold for the moment being since it is too hectic in the on-going projects. Introducing a complex structure like this takes time and effort. The business operation manager expresses a positive view of goal setting strategies since then the employees will be able to see some progress in their work. (...) “otherwise you just keep working and you keep forgetting what you have actually accomplished” (Business operation manager, Mapillary). It is stated that specifically set goals, whether they are set by the individuals, teams or the company as a whole, increase the efficiency and motivation of the employees (Luck et al., 2003). With goals it is easier for the employees to see their own contribution to the company. This is a cornerstone when making sure that the employees understand how and why things are done in Mapillary and becomes especially important when working as a Global Virtual Team.

4.5.5 Communication on a higher level

The last aspect that is affected from working as a Global Virtual Team is something that the CEO of Mapillary highlighted. He states that higher communication is difficult when the employees are dispersed. To be able to coordinate, the whole team needs to have a higher level of understanding of what and why some parts of the organisation is doing and how it connects to the rest of the organisation. The difficulty lies in both that this is challenging to explain virtually and that it needs time to be understood. When you operate in a highly dynamic environment the company’s goals and plans constantly evolves, which adds another challenging dimension to communicating this kind of information to the employees. The CEO sends out all his board slides, talks and presentations in attempt to create understanding of the company and its path. Though, it is still difficult to make sure that everybody synch and get an unified perception of where the company is at the moment and where it should be heading in the future. He highlights the fact that even though the employees read the slides they still do not get it explained. He believes that the off sites are still the best place for a higher level of communication due to the physical presence.

Since the off sites only take place three times a year it is also important with complementing syncs such as weekly or monthly meetings. As the company grows

this is an aspect that gets more difficult due to the complicity of uniting everyone for a synchronized meeting. Before they used to have a big company meeting every Monday with everybody in the company. It worked well when they were up to fifteen people but it is no longer feasible. Now Mapillary has around thirty employees and there is too much to do to set aside time for this. The company just recently started to do monthly video chats with the entire company. The CEO present something and anyone can ask questions and they can talk about things. Overall, despite that Mapillary is a remote company, they are currently still relying on physical meetings to some extent.

5. Final assessments

This thesis has contributed theoretically by expanding the understanding of the Resource Based View and Dynamic Capability Approach in a new venture setting. The research fields of strategic management and entrepreneurship are connected and the findings call for further research to integrate the two fields. With the empirical research managers can understand how the extreme case study company practically operates to build competitiveness through the diffusely defined Dynamic Capabilities. In that way they can better analyse their company and grasp the abstract and otherwise vastly theoretical definitions and tools.

5.1 Conclusion

The purpose of this thesis is to understand how a Born Global company manage to build up the competitive advantage, when working as a Global Virtual Team. What has become clear is that in a Born Global company such as Mapillary, the Global Virtual Team becomes a crucial tool to enable the company to reach their goals. Simultaneously, it also clearly sets the rules for the operations that become challenging when the company grows. The potential gains are however considered to be of greater value than the effort needed to overcome the challenges. Most of the obstacles that the company has due to working as a Global Virtual Team seems to be possible to solve or ease by introducing more formal processes. However, the CEO argues that this would be time consuming and in the expense of flexibility, which are both negative for survival and creating competitiveness in the dynamic environment they operate in.

Mapillary is an interesting case since they have embraced the new conditions of our global and dynamic world. They have found opportunities in the situation and used them as competitive advantage. As a Born Global company operating in this environment, they have challenged the perception of how we have earlier viewed a market by removing the geographical boundaries. For them there is just one market, which is in regards to customers, employees and their service. Mapillary has completely incorporated a global perspective and operates from a holistic view, where the macro perspective influence the core of their culture and the organizational choices. They have not only removed the boundaries of physical space but also time by developing a continuous time-view. The key to turn the opportunity, which the

founders of Mapillary spotted in the environment into a competitive advantage, is the Global Virtual Team.

The characteristics of such a team creates the terms for how the company can be build up and operate. In order to manage to work as a Global Virtual Team, Mapillary has developed a high degree of autonomy, transparency and trust as fundamental traits of the daily operations. They have built a knowledge sharing culture, where everything is shared virtually. In the company sub-ecosystems have emerged where every ecosystem have organically developed its own conditions and set of rules. They all work in synchronization and together they form the company. However, there is a concern that the culture is promoting too much autonomy for the coordination and synchronization to work smoothly (as for example in the case with the different use of digital tools). In this case, there is a balance between the need to adapt the operations to the Global Virtual Team and be able to generate competitiveness. The global perspective and dynamic environment have also resulted in that Mapillary consider flexibility and adaptiveness as vital. With a lean approach and flat corporate structure they let themselves be shaped by the environment. With time limitations as well as endless trends and possibilities, they manage to stay relevant by repeatedly prioritizing and a top-down implementation.

Mapillary has a clear vision regarding their resource-picking strategy. They aim to be competitive by being able to hire without geographical boundaries and thereby hire the best people for the job. By working as a Global Virtual Team, Mapillary is able to act on this vision. From the Dynamic Capability Approach it is clear that resource-picking needs to be complemented with capability-building. In the capability-building the Global Virtual Team, which enables the resource-picking strategy, has implications in the everyday operations and affects how Mapillary creates processes and routines. The company's high growth adds another dimension. Structure and routines are increasing in importance as the company grows to be able to coordinate and stay effective, but are time consuming to establish. A minimization of structure and processes also facilitate Mapillary's quick adaptiveness. Working as a Global Virtual Team has mostly affected the capability-building of the first order indirectly, i.e. Dynamic Capabilities; it has set the terms of how the company is built, which in turn affects the creation and refiguring of the processes and routines. Regarding

capability-building of the second order, i.e. learning, the existence of a Global Virtual Team has worked facilitating. It has pressured the company to early on develop a knowledge sharing culture to manage being globally dispersed. The management's vision and strategic choices seems to have had a significant impact in the development of the culture and Dynamic Capabilities as well.

5.2 Limitations and future research implications

When looking to get a better understanding of a specific phenomenon it is important to be objective. It has to be taken into consideration that one of the authors was an intern during the case study research. This might have affected the attitude towards the usage of a Global Virtual Team. It could have led to unintentional subjectiveness in the coding. On the other hand, the co-author had no prior knowledge about the company. Therefore the interpretation has been conducted in a combination of individual and joint effort in order to minimize the effect of the findings. To the advantage, with the intern position, the interviewees were more prone to participate and open up in the interviews. To be noted, in this type of research it is though very difficult to be objective since the coding and interpretation of the data rely upon the authors to find patterns and concepts from the information in the interviews. Further on the note of subjectiveness, in the interpretation process, the authors prior experiences and values has most likely influenced the findings. However, this is the human factor and something that is always present.

The findings of this thesis are quite specific to the case company and their particular settings where they operate. Thus, it is important to note that the conclusions might not be generalizable. The purpose has however not been to draw general conclusions but merely increase the understanding of how the use of a Global Virtual Team affects a Born Global company's operations. This is a contribution to the empirical base for better practical implications. Conducting a study on the subject with more generalizable findings is left to future research. Since this is an area that relies upon soft values and an abstract phenomenon, quantitative research is difficult to realize. Instead, research of a larger scope where more case companies with similar characteristics are included, could contribute to a better understanding. Another suggestion is to do a comparing case study where the companies differ on the aspects in focus. For example, a company with a Global Virtual Team can be compared to

one without. As a complementary study to receive insight on a specific question, a quantitative study where the interviewees instead rate different aspects, could be performed.

This thesis highlights resource-picking and capability-building in a geographically dispersed team. One aspect that was not examined further in this study is the cultural differences of the employees and how that impact the capability-building. This is due to that the interviewees did not mention it in the sense that any patterns were discovered. However, prior research shows that cultural differences can be challenging. For example, Klitmøller and Luring (2013) found that cultural difference affects communication effectiveness and knowledge sharing both in general and when it comes to more complex situations. Zakaria et al. (2004) also points out that despite the challenges that comes with being a diverse and distributed team, a Global Virtual Team can be rewarding and contribute to competitive advantages. This is due to the potential wins of increased creativity, far-reaching solutions and a wider perspective. Therefore, including diversity management could provide interesting insights when it comes to understanding the effect a Global Virtual Team has on the capability-building mechanisms.

Finally, as was suggested in section 4.3, future research on substituting versus complementary effect of first- and second-order capabilities needs to be conducted in new venture settings. The case of Mapillary indicates that age could be a main contributing variable and what the company develops first will determine what effect is dominating. Therefore, an analysis of several new ventures, and their development of Dynamic Capabilities over time, is necessary to be able to conclude if the first- and second-order capabilities are substitutes or complements in their impact of the Operational Capabilities.

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7. Appendix

A.1 Dynamic Capability framework

Sensing Capability is described as the ability to spot, interpret, and pursue opportunities in the environment where the basic routines are the following:

Generating market intelligence	Disseminating market intelligence	Responding to market intelligence
Identifying customer needs	Interpreting market intelligence	Initiating plans to capitalize on market intelligence
Responsiveness to market trends	Making sense of events & developments	Pursuing specific market segments with plans to seize the new market opportunities
Identifying market opportunities	Exploring new opportunities	
Recognizing rigidities		
Detecting resource combinations		

(Pavlou & El Sawy, 2011:244)

Learning Capability includes the ability to update existing operational capabilities with new knowledge; acquiring, assimilating, transforming, and exploiting knowledge. The four underlying routines of the proposed learning capability are:

Acquiring knowledge	Assimilating knowledge	Transforming knowledge	Exploiting knowledge
Obtaining new knowledge	Knowledge articulation	Innovative problem-solving	Pursuing new initiatives
	Knowledge brokering	Brainstorming	Seizing opportunities with learning and changing

			operational capabilities
		Creative new thinking	

(Pavlou & El Sawy, 2011:244)

Integrating Capability includes the ability to combine individual knowledge into the unit's new operational capabilities. Because new knowledge created by learning is mostly owned by individuals, it must be integrated to a collective level. Its routines are the following:

Contribution	Representation	Interrelation
Disseminating individual input within the business unit	Visualizing how people fit in	Integrating individual inputs within a unit to improve the reconfigured operational capabilities by executing a collective activity
	Anticipate how other people act	
	See how the unit's activities fit together	

(Pavlou & El Sawy, 2011:245)

Coordinating Capability includes the ability to orchestrate and deploy tasks, resources, and activities in the new operational capabilities. Require effective coordination of tasks and resources and synchronization of activities. The routines of importance are:

Assigning resources to tasks	Appointing the right person to the right task	Identifying complementarities and synergies among tasks and resources	Orchestrating collective activities

(Pavlou & El Sawy, 2011:246)

A.2 Description of the interviewees

Position	Team	Situated	Team members situated
iOS developer	No specific team	Malmö office	
Community Manager	Growth and Marketing Team	Malmö office	Australia, Norrköping, Malmö office
Operations Lead	No specific team	Växjö (from home)	
Business Development Lead	Business Development Team	New York (WeWork)	Toronto, traveller
Computer vision developer	Computer Vision Team	Malmö Office	China, Gratz
Design Lead	Design Team	Malmö Office	Malmö
CEO	No specific team	Malmö Office	

Noted: All the different teams are collaborating in between the teams. The same goes for the ones that are not assigned to a specific team.

A.3 Interview Guide

Questions to the employees

Introduction by us to the interviewee: Thank you for participating in this interview. First of all we would like to ask you if it is ok that we record this? Do you want to be anonymous?

In the following questions we want to learn about your daily work and how you manage to handle that you are part of a global company that makes use of geographically dispersed and digital teams.

General info about the interviewee

- What is your position at Mapillary, what do you do?
- Which team are you a part of?
- Do you work close together with some specific teams?

Questions regarding **sensing capability** - ability to spot, interpret and pursue opportunities in the environment.

- How do you work to scan the environment in order to identify new business opportunities?
- How do you review the likely effects that changes in your business environment might have on your customers?
- How do you work to ensure that your service is in line with what your customers want?
- How do you work to implement new ideas?

Questions regarding **learning capability** - ability to update existing operational capabilities with new knowledge; acquiring, assimilating, transforming, and exploiting knowledge.

- Regarding new information and knowledge in your daily work; where and when do you find it and how do you value it?
- How do you incorporate new information and knowledge into Mapillary?
- How do you make use of new and existing knowledge?

- How do you recognize and evaluate when you need to take in new information in the form of new employees?

Questions regarding **integrating capability** - ability to combine individual knowledge into the unit's new operational capabilities. Because new knowledge created by learning is mostly owned by individuals, it must be integrated to a collective level.

- How are you working to transfer individual inputs to the group?
- How do you share your work progress with your colleagues so that everyone knows what is happening in the firm and manage to move forward together?
- How does everyone become aware of each other's tasks and responsibilities and who in the group that has the skills and knowledge relevant to your work?
- How does this work with new employees?
- How do you integrate new employees knowledge and skills and how does new employees understand the principles of the organisational design and how things are done in Mapillary?

Questions regarding **coordinating capability** - ability to orchestrate and deploy tasks, resources, and activities in the new operational capabilities. Require effective coordination of tasks and resources and synchronization of activities.

- Do you see through most of your tasks alone or do you synchronize with other team-members? If, how do you stay coordinated?
- How do you ensure that your group gets the necessary resources such as information, time and money? On what level is the allocation determined? (Ex. firm or group level)
- How do you perceive the organisational design? Is it flat in the regard that you are able to work as self-organizing teams where own initiatives are encouraged?
- Do you do any follow-up on your work? How do you evaluate the outcome and efficiency of performed tasks? How do you use that information to improve future tasks?

Questions added to the end during the interviews:

- How has the routines and structure developed over time?
- What are the main PROS and CONS with working in geographically dispersed and digital teams?

Questions to the CEO

Thank you for participating in this interview. First of all we would like to ask you if it is ok that we record this?

Info about the interviewee

- What is your position at Mapillary, what do you do?
- Do you work close together with some specific person/teams?
- When you founded the company and decided to go global right away - what type of resources were you hoping to be able to exploit? Why?
- In which way did you believe that implementing Global Virtual Teams would help you in your global strategy?

Introduction by us to the interviewee

In the next questions we want to learn about your daily work in your global company Mapillary as a and how you manage to handle that you are part of a global company that makes use of geographically dispersed and digital teams.

Questions regarding **sensing capability** - ability to spot, interpret and pursue opportunities in the environment.

- How do you work to scan the environment in order to identify new business opportunities?
- How do you work to ensure that your service is in line with what your customers want?
- How do you work to implement new ideas?

Questions regarding **learning capability** - ability to update existing operational capabilities with new knowledge; acquiring, assimilating, transforming, and exploiting knowledge.

- Where do you find new information and knowledge in your daily work and how do you incorporate it into Mapillary?
- How do you recognize that you need new employees? For what reasons do you hire?

Questions regarding **integrating capability** - ability to combine individual knowledge into the unit's new operational capabilities. Because new knowledge created by learning is mostly owned by individuals, it must be integrated to a collective level.

- How do you share your work progress with your colleagues so that everyone knows what is happening in the firm and manage to move forward together?
- How does everyone become aware of each other's skills and responsibilities?
- How does this work with new employees?
- How does new employees understand the principles of the organisational design and how things are done in Mapillary?
- How do you integrate new employees in the company, (is it important to meet physically in the beginning?)

Questions regarding **coordinating capability** - ability to orchestrate and deploy tasks, resources, and activities in the new operational capabilities. Require effective coordination of tasks and resources and synchronization of activities.

- Do you see through most of your tasks alone or do you synchronize with other team-members? If, how do you stay coordinated?
- How do you ensure that your group gets the necessary resources such as information, time and money? On what level is the allocation determined? (Ex. firm or group level)
- Do you do any follow-up on your work? How do you evaluate the outcome and efficiency of performed tasks? How do you use that information to improve future tasks?

Questions regarding the organisational design and management

- How have you worked with the build up of Mapillary's organizational design?
(Flatness, own initiatives etc.)
- Do you encourage own initiatives?
- Is it the management that determines the routines or have they emerged organically?

- What are the main PROS and CONS with working in geographically dispersed and digital teams?

A.4 Open-, Axial- and Selective coding

1. Synchronous work
2. Continuous time-view
3. Autonomy and independence
4. Trust in abilities, competences and work effort
5. Flatness and flexibility
6. Static and dynamic documentation
7. Knowledge sharing; Funnel principle
8. Prioritizing
9. Attentive and responsive
10. Lean approach
11. Organic development
12. Transparency
13. Macro perspective and goal orientation
14. Informal processes; subgroups

Capability	Open codes	Axial codes	Selective codes
Sensing	<p>Dependency: Synching and contribution is vital</p> <p>Globally dispersed team: Written discussion, awaiting feedback, constant knowledge sharing</p> <p>Synchronizing activities: Project management (GitHub), new introductions of tools (Abstract)</p>	<p>Synchronous work: synchronizing activities with affected parties and other to stay on same course</p>	<p>Organization build up by synchronized self-organizing and self-sufficient sub-groups and individuals</p>
Learning	<p>Established routines depending on area: Not for collecting new information knowledge, routines for the weekly team updates</p> <p>Synchronizing activities: Syncing to make use of knowledge within the company</p> <p>Fail in synchronizing: Double research</p>		

	on the same topic, unclear whose area of research		
Integrating	<p>Changing processes: Now product manager that plan on a high level</p> <p>Direct information sharing: Direct instant updating communication (slack)- weekly team updates through e-mail</p> <p>Globally dispersed team: off-sites three times a year</p> <p>Synchronizing activities: Weekly updating e-mails from team leads, off-site three times a year, internal web, GitHub, blog Post</p>		
Coordinating	<p>Changing processes: The internal communication processes have changed a lot, better synchronization</p> <p>Dependency: Increasing dependence of other teams → easier to stay in synch, the growth and marketing team works with the business development team and the support team</p> <p>Synchronizing activities: Product manager responsibility to sync on a higher level, team meetings, GitHub, regularly week sync meetings, planning activities in sprint</p>		
Sensing	Independency: Just implement if you're responsible	Autonomy and independence: Individuals high responsibility and work independent	
Learning	<p>Company structure: Coordination of tasks and goals but the activities per se are self-monitored</p> <p>Culture: probes that you take initiatives</p>		

	<p>Independency: Learn on your own</p> <p>External influences: Internet, googling, networks, linkedIn, twitter, design newsletters, scientific publications</p>		
Integrating	<p>Independency: Independent work yet communicating with team members, right from start – you learn about the company and routines along the way</p>		
Coordinating	<p>Globally dispersed team: You need to accept that there are very few social interaction</p> <p>Independency: Key for a distributed organisation</p> <p>Time saving activities: Divided primarily responsibility</p> <p>Culture: autonomy – too much maybe to make the processes work smoothly?</p>		
Sensing	<p>Dividing tasks yet inclusive atmosphere: different responsibilities yet new inputs are welcome</p>	Trust in abilities, competences and work effort	
Learning	<p>Independence: Trust people enough to divide tasks</p> <p>Supportive attitudes towards learning: Covering expenses for learning</p> <p>Time saving activities: Trust people enough to divide tasks, when lacking knowledge ask someone in the company, video chats instead of writing in the slack chat</p>		
Integrating	<p>Trust: No need to get involved in</p>		

	every different tools or updates		
Coordinating	Trust: enables individual work, key to get the resources you need		
Sensing	Tracking knowledge: Guideline documents, keeping a log, GitHub keeps the ideas searchable	Static and dynamic documentation: To be able to track it	
Learning	Company handbook: Internal wiki for static information, Blog Tracking knowledge: Documents for how to use new knowledge, systematic way to make things “stick” (Google Docs or GitHub), not tractable when video-chatting		
Integrating	Company handbook: All the information is found in one portal (hej.mapillary.com, information of the structure but no clear info about the employees (PingBoard) Tracking knowledge: Through slack, Internal wiki, GitHub Globally dispersed team: Always written conversations (slack), even if physically proximity		
Coordinating	Globally dispersed teams: Put more effort into communication, need to make sure that things don’t get lost, use slack even with physical proximity Routines differing from team to team: Keeping the processes updated in the hej.mapillary page Time consuming activities: Writing everything down and reading it, structure and processes		

Sensing	Culture: Knowledge sharing Direct information sharing: slack for instant updating and email for announcements	Knowledge sharing; Funnel principle → Put everything in slack and then channel through other tools	
Learning	Direct information sharing: Direct instant updating communication (slack)- does not need to stick, weekly team updates, sharing notes Direct information sharing: Slack is not always seen as an effective tool + uncertainty if the message comes through		
Integrating			
Coordinating			
Sensing		Transparency: Information, goals, plans and activities should be accessible for everyone	
Learning	Culture: transparent, anyone can contribute Globally dispersed team: Using slack as a chat tool instead of direct communication		
Integrating	Company structure: Work in the open – everybody has access		
Coordinating	Dynamic evolution: Higher communication is connected to evolution and this is hard when dispersed		
Sensing	Established routines depending on area: Not for internal and external information scanning, yes for planning (sprints), yes for implementing new ideas (GitHub)	Informal processes; subgroups or individuals differ and decide most processes rather	

	Routines differing from team to team: When assigning people to the GitHub issues – team manager or the person creating the issue	than central approach	
Learning	Routines differing from team to team: Some teams are better at creating processes for knowledge tracking		
Integrating	Established routines depending on area: Yes for when meeting physically (off-site), yes for when transferring new inputs to the group Established routines depending on area: Not for when a new employee comes into the company Routines differing from team to team: Different interpretations of how to use weekly mailing update		
Coordinating	Changing processes: Communication still ad hoc, no specific frameworks or documents, currently changing Established routines depending on area: Not good system for individual evaluation Routines differing from team to team: Some have daily meetings, meetings for planning sprint		
Sensing	External environment: Cannot do everything they want to due to resource limitations	Prioritizing: ranking tasks and work top-down	Shaped by the external environment rather than try to foresee or create/affect it
Learning	Environment: Many new things to do, information intensive, high competition, satisfying investors		
Integrating			

Coordinating	<p>Changing Processes: New product manager that overview and prioritize new projects and put them in motion top-down</p> <p>Routines differing from team to team: Not clear which communication mechanism that should be prioritized</p>		
Sensing	Company structure: two different customers, competitive advantage, has evolved with growth	Flatness and flexibility: Company structure and processes	
Learning	<p>Flat organisation: There are few “hierarchical levels”, nothing is coming from top-down</p> <p>Opinions are valued: Employees give feedback (Office wibe).</p>		
Integrating	<p>Culture: Auto-deduct, evaluating, flexible, remote</p> <p>Flat organization: Anyone can assign another person for a specific task</p> <p>Opinions are valued: The integration period for a new employee is flexible</p>		
Coordinating	<p>Changing processes: Balance between processes and spontaneity</p> <p>Culture: Caring about the people in the organisation, everybody is able to give input – feedback, knowledge sharing, acknowledging culture, empowering, including, autonomy.</p> <p>Dependency: connected to the flatness of the company</p> <p>Flat organisation: Resource allocation is not necessarily decided by the CEO, flatter before the intensive growth,</p>		

	<p>everybody can own a task and thereby have the responsibility and final say, everybody talks to everybody, due to the flatness there is a lot of syncing, still very close to the CEO</p> <p>Globally dispersed team: Flexibility</p> <p>Opinions are valued: Everyone is welcome with an opinion, create a balance so everyone can be productive</p> <p>Strategies: Aligned and divided in sub-fields where operational decisions are being made, everybody is involved in the strategic direction, team leaders have the strategic meeting with the CEO</p>		
Sensing	<p>External influences: Globally incoming business opportunities</p> <p>Follow up on work: Feedback from customers, good relationships with their customers, user testing</p>	Attentive and responsive: to the external environment and opportunities	
Learning			
Integrating			
Coordinating	<p>Changing processes: More resources makes follow up easier</p> <p>Environment: Dynamic and changing</p> <p>Looking for constant improvement: Identify problems, try different things, discussions, evaluations</p>		
Sensing	Dynamic evolvement: Create scalable processes	Organic development: Company develop	

	<p>Fast growing company: the processes are not keeping up, remote solution dependent on the size of the team entity</p> <p>Planning: Coherent process system: idea – initiatives – design – testing – implementation, things can't be as ad hoc as before</p>	and grow from within by handling pain points and problems	
Learning	<p>Changing processes: Before everyone did little of everything – now clearer responsibilities</p> <p>Dynamic evolvment: How and when they hire new people</p>		
Integrating	<p>Changing processes: The CEO had a bigger role in the introduction phase of new employees</p> <p>Awareness of individual tasks and responsibilities: Varying opinions regarding awareness and where to find information about it, increasing difficulty for old and new employees to keep due to growth, only need to know the responsible department</p> <p>Changing processes: They should change their processes for when introducing new employees</p>		
Coordinating	<p>Changing processes: Use of slack has changed to more channels, used to have big company meetings on Mondays → replaced with email updates, new town hall meetings, before could decide more without asking anyone, team-lead is much more defined, developed more organisational structure around functions, routines and structure has changed, more divided tasks and</p>		

	<p>responsibilities</p> <p>Dynamic evolvment: Processes are organically evolving and changing</p> <p>Fast growing company: Hiring many new people → more resources to do things, bringing in more structure, too much structure will slow you down, no limits</p> <p>Transition from small to big company: Depending on how many you are in the company</p>		
Sensing	<p>Culture: Lean culture</p> <p>Changing processes: implementation of new ideas, alignment and sync, coordination, coherence, longer term goals today, planning</p> <p>Dynamic evolvment: Lean approach when developing new solutions and design</p> <p>Planning: Planning Process: discussion stage – conclusions – planned into a sprint, try to stick to the planned sprint</p>	<p>Lean approach: Successively approve minimal viable product. Try new things out rather than spend time evaluating most optimal option</p>	
Learning			
Integrating			
Coordinating	<p>Follow up on work: Key measures to evaluate how well things work, user testing to see if the message have gone through, set up metrics, on a work level they have the sprint, on customers</p>		
Sensing	Time consuming/time saving	Continuous time-	Complete

	activities: slack, e-mail	view: Compared to periodical (9-17 for ex.)	incorporation of a global perspective: the world is one market, regarding customers, their service and employees
Learning			
Integrating	Globally dispersed team: Consideration to time zones		
Coordinating	Benefits from working as global virtual teams: Someone is always available Globally dispersed team: You will sometimes need to wait longer for an answer or to get help etc., effort to make time for video calls	Macro perspective and goal orientation: Decisions are made based on overall goals	
Sensing	Company culture: Longer term goals affects daily decisions, distributed from day one Holistic View: Contribution, setting goals and problem solving with the whole company in mind		
Learning	Holistic view: Hiring plan following the company's higher goals Fast growing company: Hiring many new people		
Integrating			
Coordinating	Company structure: Company goals are highlighted and followed, developing more of an organisational structure around functions, as little as possible but not less, as small teams as possible but not smaller Benefits from working as global virtual teams: You can hire anyone, people from different countries with different backgrounds and culture, the customer base and the community are		

	<p>international - therefor beneficial, better customer support, personal flexibility</p> <p>Fast growing company: Hiring many new people – more resources to do things, bringing in more structure, too much structure will slow you down, no limits</p> <p>Follow up on work: No real team goals</p>		
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