A Virtual Road to the Global Market

A new paradigm for Born Globals' organizational structures?

Abstract

This thesis builds on the argumentation by business advisors and academic scholars, that quick and extensive internationalization is a key competitive advantage in today's fast-paced economy. By reviewing literature, it can be established that very little is discussed regarding the strategic options to increase international scope for Born Globals. Furthermore, many studies indicate that Born Globals have a smaller international scope after three years than earlier concluded. Earlier research has examined virtual teams in MNCs and found that their unique capabilities have positive implications for internationalization processes.

Against this background this thesis sets out to test whether Born Globals with virtual organizational structures, i.e. Virtual Born Globals, reach a larger international scope compared to non-virtual Born Globals. By merging both Born Global literature and the Dynamic Capability approach to an integrated model, and using the CAGE-model, the international scope can be measured. The model output from Virtual Born Globals were contrasted to non-virtual Born Globals. This results in the main conclusion that Virtual Born Globals reach a larger international scope because of their unique dynamic capabilities, Cultural-and Time-zone capabilities. Due to internal challenges within the teams, in terms of differences in culture and time-zones, Virtual Born Globals are forced to develop the capabilities to handle the challenges internally. These capabilities can then be utilized in the internationalization process and decrease the perceived challenges, and therefore increase the international scope.

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Acknowledgements

Writing this thesis has been challenging but also very rewarding. We are proud of the final outcome and it would not have been possible without the strong support from some people that we would like to express our sincerest gratitude to.

First, we would like to thank our supervisor *Sara Melén* who have supported from the very beginning when we first planned on writing about companies on Bali. We appreciate your patience when reading our drafts and listening to our ideas and of course helping us through roadblock and giving us new insightful perspectives.

Additionally we would like to thank friends and family for listening to our endless thesis talk and reading multiple drafts. Finally, we would also like to thank all companies participating in our study. Your participation had impact on our thesis as well as on us personally.

Contents

Key Concepts

Psychic distance - Factors preventing flow of information from and to the market. It is aimed at the individual's perception (Johanson & Vahlne, 1977). Measured either at individual level.

Stimulus affecting psychic distance - Absolute differences between markets in terms of languages, education, cultural and industrial development (Ghemawat, 2001). Measured at country level.

International scope - Concern both the number of export markets and the differences in these market in terms of stimulus that affect psychic distance (language, education, cultural and industrial development) (Kuivalainen et al (2007)

Internationalization - The process of increasing involvement of enterprises in international market, since it is the most common definition (Welch and Luostarinen, 1988)

Born Global - Firms that reach a foreign sales volume of at least 25 % within the three first years (Knight, 1996)

Virtual team - Geographically dispersed teams that rely on communication technologies (Jarvenpaa et al, 2004)

Virtual Born Global - Born Global with a virtual organizational structure

Capabilities - A capability is seen as the ability to perform or achieve certain actions or outcomes. Examples of capabilities are risk managing capabilities in a bank to avoid bankruptcy or product design capabilities for a car manufacturer to sell more cars.

1. Introduction

The following chapter will discuss the contemporary global context and why this thesis is of relevance. The first section describes globalization, evolution of Born Global literature and ends with the thesis aim and overall purpose. Lastly, follows a discussion of intended knowledge added and thesis structure.

1.1 Background

1.1.1 Digital globalization

Globalization, i.e. economic integration between markets, is mainly derived from companies desire to seek out opportunities in geographically dispersed areas, in order to generate a sustainable competitive advantage (Gupta et al, 2008). Digitalization is a major driving force for globalization (McKinsey Global Institute, 2016). Remarkably, digital flow - which was non-existent 25 years ago - now exerts a larger impact on GDP growth than centuries-old trade in goods. This digital shift has made it less capital intensive for companies to possess a large international reach (HBR, 2016). The result is a more connected world where the amount of cross-border bandwidth that is used has grown 45 times larger since 2005 (McKinsey Global Institute, 2016). Digitalization simplifies communication and transportation which enhances market access and opportunity recognition. This results in increased speed and scope of internationalization (Business Sweden, 2016). For example, Multinational Corporations (MNCs) now manage their international operations in a leaner, more efficient way with virtual teams, a structure originating from digitalization. Virtual teams are geographically dispersed teams relying on communication technologies. Their digital connectedness can exploit fast growing markets while keeping the teams connected at all times (HBR, 2016). This opens up for completely new internationalization processes.

In addition to business advisors, academia has also focused attention to the opportunities today's digital age implies for companies' internationalization processes. Building on Gupta et al's (2008) imperatives for competitive advantage, rapid globalization and internationalization are seen as highly important for companies in today's constantly changing economy (Madsen & Servais, 1997; Nummela et al. 2004; Gabrielsson & Kirpalani, 2012). With regards to the imperatives, the disruptive tech-industry has drawn greatest attention (Jones et al, 2011). The global tech-industry, e.g. software-firms, is characterized by short life cycles and disruptive innovation, thus implying a pressure on gaining first mover advantage (Gabrielsson and Kirpalani, 2012). Reducing time to global market is of high priority for MNCs and startups alike, as many opportunities are short lived (Zahra et al, 2006). Digitalization has played a key role in enabling startups to cope with the need of global trade which before was reserved to advanced economies and MNCs (Jones et al, 2011).

1.1.2 Internationalization Process of Born Globals

According to the traditional view of internationalization, the process is described as gradual where the firm increases its presence and commitment market by market (Johanson & Vahlne, 1997; Johanson & Vahlne, 2009). Firms are favoring markets with low psychic distance to its domestic market since these are assumed being easier to enter and operate in. Psychic distance is measured either at an individual level or country level as stimuli for psychic distance at individual level. Psychic distance is defined as the factors preventing flow of information from and to the market, e.g. cultural and economic differences.

Although, the stage wise model developed by Johanson & Vahlne (1977) has been revised 2009 to increase its explanatory power in today's different economic and regulatory climate, it cannot keep up with the fast-paced tech-industry (Oviatt & McDougall, 1994). In the past two decades, studies have shown different internationalization processes, characterized by increased speed and scope of internationalization. This is mainly due to simultaneous market entry compared to the stepwise process described in the traditional view (Madsen & Servais, 1997; Knight, 1996; Oviatt & McDougall, 2005). This phenomenon, firms that experience rapid internationalization, is now known as Born Globals. It describes companies that adopted a global approach from inception to derive significant competitive advantage. Born Globals have therefore been operationalized as having a high foreign sales volume of at least 25% within first three years (Knight, 1996).

1.2 Problem Area

1.2.1 Problem Area - Limited International Scope of Born Globals

However, Born Globals' ability to reach a global market through simultaneous market entry has met critique. Recent studies imply that the internationalization for Born Globals might be more similar to the traditional view than initially assumed. Born Globals to a larger extent than expected, seem to be affected by the psychic distance between the home market and the host market (Chetty & campbell-Hunt, 2004). This results in a stepwise and path dependent internationalization, similar to that of the traditional view. Therefore, Born Globals in many cases only develop to internationalize to markets with low stimulus for psychic distance instead of becoming truly global (Dow, 2000; Chetty & campbell-Hunt, 2004; Lopez et al 2008).

Firms that are strongly influenced by the stimulus for psychic distance, perceive it as challenging to internationalize to markets that are different compared to domestic market, which results in a smaller international scope (Chetty & Campbell-Hunt, 2004; Johanson & Vahlne, 2009; Nordman & Tolstoy, 2014). International scope is therefore characterized by number of export countries and the sum of stimuli for psychic distance to export markets (Kuivalainen et al, 2007). The observed limited international scope poses a challenge for Born Globals since it limits one of their main competitive advantages, reaching a global market rapidly (Zahra et al, 2006).

Since the phenomenon of Born Globals mostly is described by behavioural models, the theories about how they internationalize are descriptive in its nature. Hence, literature does not explore any strategic perspective after choosing a global approach (Chetty and Campbell-Hunt, 2004; Mudambi and Zahra, 2007). More specifically, literature does not explore the strategy for increasing international scope by decreasing the effect of stimulus influencing psychic distance. This is of high relevance since Born Globals' scope is found to be smaller than initially proposed (Chetty and Campbell-Hunt, 2004; Nordman & Tolstoy, 2014). In conclusion, few have addressed the strategic perspective to increase scope once a firm has adopted a global approach, even though large international scope is a key competitive advantage (Jones et al, 2011).

1.2.2 Virtual Born Globals & its International Scope

As mentioned above, digitalization has resulted in a growing population of virtual teams in companies (Global Leadership Summit, 2015; McKinsey Global Institute, 2016). In the competitive market, virtual teams represent a growing response to the need for a fast time-to-market, low-cost and rapid solutions to complex organizational problems (Ebrahim et al, 2009). Both business advisors and scholars agree on the

vast potential virtual organizational structures and teams have in an international setting e.g. minimal capital requirement, instant global access and capabilities that generate agility, innovativeness and speed (Katz et al, 2003; Zakaria et al, 2004; Chesbrough & Teece, 2008; McKinsey Global Institute, 2016). However, research on virtual teams is still in its nascent stages and research about virtual teams has mainly been conducted in MNCs and not on Born Globals. Despite this, there are many cases of Born Globals with virtual organizational structures, which this thesis defines as Virtual Born Globals.

Furthermore, identified capabilities in virtual teams are found to be closely related to stimulus for psychic distance. These capabilities involve for example the understanding of cultures, understanding of different markets and working over time zones (Katz et al, 2003; Pinjani & Palvia, 2013). Hence, by adding virtual teams to the Born Global literature this thesis reveals an important research area that, from what we know, has not been examined before.

Virtual organizational structures in Born Globals could therefore reduce the psychic distance, since they are able to better cope with the stimulus that affect it (Katz et al, 2003; Pinjani & Palvia, 2013). Because of this, Virtual Born Globals might achieve a larger international scope compared to domestically founded Born Globals without virtual teams (i.e. non-Virtual Born Globals).

1.3 Purpose of the Thesis and Research Question

In short, the purpose is to examine how virtual organizational structures in Born Globals affect the international scope. The thesis will map both the proposed increase in international scope and which capabilities in virtual structures have explanatory power for potential changes in scope. Consequently, the thesis will increase the understanding whether geographic dispersion from inception helps Born Globals outpace, in terms of scope, Born Globals without virtual structures. Hence, it may be considered a viable strategy for entrepreneurs to unlock increased competitive advantages in the new global-economy. It is no longer enough to adopt global approach from inception, literature most understand how to do it in the most optimal way. Based on this rationale this thesis strives to answer the following questions:

(1) *To what extent do virtual organizational structures in Born Globals affect the international scope?*
(2) *How do capabilities, unique to Virtual Born Globals, impact the international scope?*

1.4 Thesis Scope

Against this background, delimitations concern a focus of (1) Born Globals with a virtual organizational structure, (2) tech-industry, (3) first three years from foundation and (4) psychic distance as the major explanatory power for international scope. This allows for accurately testing the proposition of Virtual Born Globals fit into former literature within prevailing limitations of this thesis. The framework used for testing core propositions builds on theories of psychic distance in the Born Global literature and theories on dynamic capabilities derived from the Resourced Based View. Hence, the framework will explore the strategic perspective by connecting the relevance of virtual structures in Born Globals for enhanced international scope. It will be done by accurately mapping internationalization patterns and capabilities unique to Virtual Born Globals.

Furthermore, inconsistencies in measurements between behavioral view's individual level psychic distance and transactional view's country level psychic distance forces this thesis to make a distinction between; (1)

psychic distance (Johanson & Vahlne, 1977) and (2) stimulus affecting the psychic distance which for example are differences in language, education, cultural and industrial development (Ghemawat, 2001).

1.5 Intended Theoretical Contribution

Internationalization processes should no longer see the domestic market as the sole benchmark for expansion. Hence, this thesis is based on the standpoint that as digitalization further revolutionizes Born Globals, the theories must be problematized to further extent than accepting a static view of having a country of origin (Jones et al, 2011). By outlining a more granular approach to shaping market entry strategy with the inclusion of virtual structures for Born Globals, the thesis strives to enhance the understanding of how the scope of internationalization differs between Virtual Born Globals and Born Globals in existing literature, which will serve as the theoretical benchmark. Additionally, by identifying the capability building and its relation to the proposed decreased effect of psychic distance in the internationalization process for Virtual Born Globals, the understanding of the strategic perspective for increasing scope increases. This can be dynamically adapted in a managerial setting to achieve a competitive advantage. Therefore, the study is designed to construct a framework that allows for the theoretical gap to be tested. By filling the research gap, the intention is to create managerial implication in terms of if and how elements of virtual teams should be implemented in Born Globals in order to reach a larger international scope. Consequently, by imposing a bridge between Born Global literature and the dynamic capability approach, this thesis aims to contribute to both academia, entrepreneurs and corporate strategists.

1.6 Thesis Structure

To achieve the intended knowledge contribution, the thesis is organized as follows. Section two provides the backdrop of the internationalization process for Born Globals, narrowing down to recent focus on Virtual Born Globals for both a granular analysis on its scope of internationalization and the inclusion of dynamic capability theory. The section concludes by identifying the research gap, which this thesis sets out to answer. Section three presents the theoretical models used in the study, ending with constructing an integrated model that is this study's theoretical framework. Section four elaborates on the chosen research method used to fill the research gap. Section five analyses, using the theoretical framework, the empirical findings from the quantitative and qualitative data collection. Section six presents the key findings and discusses and interprets these. Lastly, section seven contains the conclusion that summarizes the analytical findings and presents managerial and theoretical implications. Lastly, suggestions for further research is presented.
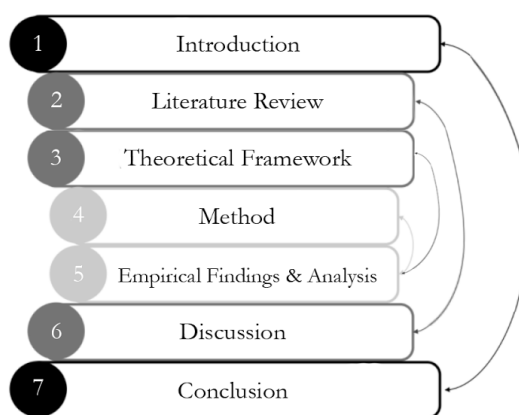
Figure 1.1: *Thesis Disposition (based on Hill, Soppelsa, & West, 1982)*

2. Literature Review

The study builds on two different research streams, (1) Born Global literature and (2) resource based view in terms of dynamic capability approach. The first section provides the background literature by describing internationalization theories in general and the evolution of Born Global literature. The next section presents research about dynamic capabilities and how these have been proven to be unique for virtual teams in MNCs. By combining these research streams the research gap is identified.

2.1 Internationalization processes of firms

2.1.1 Definition of Internationalization

Internationalization is a commonly used term both in business and in academia, but the definition of the concept remains inconsistent and complex (Bell & Young, 1998). This thesis define internationalization as; the process of increasing involvement of enterprises in international market, since it is the most common definition (Welch and Luostarinen, 1988). Even though the internationalization processes of firms is a research field that has gained a lot of attention it has mainly been targeted towards and based on larger corporations. The internationalization literature that exists on smaller firms, i.e. SMEs and startups, have been criticized of not regarding the varieties and different characteristics among smaller firms (Westhead et al, 2007).

2.1.2 Traditional view of internationalization

In the traditional internationalization literature, focusing on larger corporations, the behavioral view on internationalization has been one of the most popular approaches. The Uppsala Internationalization Process Model which was developed by Johanson & Vahlne (1977) and revised in 2009, describes companies' cross-border activities by showing how foreignness of other markets complicates firms' internationalization processes.

According to the Uppsala model, firms start their operations in the domestic market and develop their products, processes and capabilities for several years before entering foreign markets. The internationalization process is occurring gradually and stagewise (Johanson and Vahlne, 1997). Hence, Johanson and Vahlne describe internationalization as "a cumulative process in which relationships are continually established, developed, maintained and dissolved in order to achieve the firm's objectives".

The authors describe it as a liability not being embedded in networks and lacking knowledge of the particular foreign market the company seeks to enter. Deriving from these liabilities in foreign markets, Johanson & Vahlne emphasize the role of psychic distance in the market selection. Psychic distance is defined as "factors preventing or disturbing the flow of information between potential or actual suppliers and customers" (Johanson and Vahlne, 1977). These factors include differences between the domestic market and the host market with regards to for example national culture, language, political systems, education level, level of industrial development and time zones (Dow & Karunaratna, 2006). The entering of markets that are perceived as psychically closer are favored in the beginning of the internationalization process. This is because entry to markets with greater psychic distance if often characterized by more

commitment and larger risk (Wiedersheim-Paul, 1975). Hence, the internationalization process could be described as path-dependent, since the domestic market is the starting point when considering psychic distance, which affects both market selection and entry mode.

The literature reveals inconsistencies in how to measure psychic distance between markets (Johanson & Vahlne, 1997; Dow & Karunaratna, 2006; Yamin & Sinkovics, 2006; Hutzschenreuter et al, 2014; Nordman and Tolstoy, 2014). The behavioural view of literature measures psychic distance on an individual level, i.e. the distance perceived by decisions makers and executives (Johanson & Vahlne, 1997; Nordman and Tolstoy, 2014). Researchers deriving from a transactional perspective have later on focused on psychic distance on a country level, measuring differences between countries in absolute terms, which is argued to be stimulus affecting the psychic distance on an individual level (Ghemawat, 2001; Hutzschenreuter et al, 2014).

Moreover, the Uppsala theory claims that firm's international involvement increases in stages as a result of incremental learning in the host market (Johanson & Vahlne, 1977; Saarenketo et al, 2004). The market knowledge is assumed to be developed by experiential learning, i.e. learning that is acquired by experience (Johanson & Vahlne, 1977). Hence, throughout this lengthy and slow process, the initial perceived barriers are removed as the firm learn from the internationalization process. This implies that firms learn how to work with differences between markets, i.e. stimulus for psychic distance, and therefore reduce the disturbance in flow of information (Chetty & Campbell-hunt, 2004).

2.1.3 International Entrepreneurship

However, due to technological, social and economic changes this behavioural view of internationalization has been questioned. Today, several small firms manage to compete from their inception against larger multinational corporations with established international operations. This new phenomenon has led to the emergence of a new and distinctive stream of research the last decades, International Entrepreneurship (IE) (Rialp, 2010). IE primarily recognizes smaller firms that internationalize rapidly, sometimes very soon after being founded, contradicting theories about economies of scale (Rennie 1993; McDougall et al, 1994; Moen and Servais 2002. These firms are referred to as Born Globals (Oviatt and McDougall, 1994).

The earliest occurrence of Born Global firms in IE literature is the research of venture type (Jones et al, 2011). One of the first conceptual models in this theme was developed by Oviatt and McDougall (1989) who, distinguished international new ventures (INV) from domestic new ventures. A couple of years later Oviatt and McDougall (1994) contributed to the IE research by conceptualizing four different venture forms: export/import startup, multinational trader, geographically focused startup and global start-up. The global start-up was defined as "firms that derive a significant competitive advantage from extensive coordination among multiple organized activities, the locations of which are geographically unlimited".

2.1.4 Born Global Definition and Attributes

Despite more than two decades of research about Born Globals, there is still no consistency in what constitutes a Born Global firm. Several terms have been used to refer to firms that have a global mindset from inception and manage rapid internationalization regardless of the limited financial and human resources usually associated with SMEs (Bell et al. 2003). Some examples are: international new ventures (McDougall et al., 1994), Born Globals (Knights, 1996; Madsen and Servais, 1997), born international

SMEs (Katz et al 2003) and early internationalizing firms (Rialp et al, 2005). This thesis will refer to this type of venture as Born Globals.

Since the notion of Born Global firms, academia has focused on the various features and attributes that characterize these companies. Even though academia might not be completely united about to what extent each attribute and feature is fulfilled by Born Globals there is a relatively consistent view of the attributes that typically describe these firms. Distinguishing features have been described as (1) time & scope of the internationalization, (2) the small effect of psychic distance in the market selection, (2) the use of ICT and networks, (3) the utilization of the founder's prior experience instead of experiential learning and (4) the firm strategy (Chetty and Campbell, 2004). Literatures progression of each attribute is outlined below:

Time and scope of the internationalization

In Oviatt and McDougall's definition of INV (1994) the time of internationalization was emphasized as the distinguishing feature between Born Globals and the traditional view. However, literature has shown a wide range of definitions regarding time (from 10 years to one year after foundation). The original definition, originating from the US, specified that in order to be classified as a Born Global, the export rate had to be a minimum of 25 % of the firm sales within three years of inception (Knight, 1996). This definition came to be criticized by several, mainly because it becomes misleading when considering differences in terms of the countries' domestic market. For example, US is a country with a large domestic market and a low export ratio whereas the definition is not very demanding from a European perspective, considering that almost every start-up with a niche product would fall into this category (Kuivalainen et al, 2007). However, regardless of attempts from researchers to suggest a new definition, Knight's definition still dominates the Born Global literature (Andersson & Wictor, 2004).

Psychic Distance

A large portion of research on Born Globals focus on how the firms are affected by psychic distance in their internationalization process (Jones et al, 2011). In contrast to the traditional view of internationalization, Born Global literature has emphasized that Born Globals recognize the limited importance of their domestic market and are not affected by psychic distance in their internationalization. The founders of these firms are described as perceiving the whole world as their marketplace, not limiting themselves to having one country as a starting point (Moen & Servais, 2002).

Use of ICT and Networks

Born Globals are described as relying a lot of telecommunications and computer technologies in order to internationalize rapidly. Technological development has enabled small companies to extend beyond their own boundaries and access networks and opportunities regardless of financial constraints (Chetty and Campbell-Hunt, 2004).

Prior experience & Learning to Internationalize

In contrast to the traditional view of internationalization, where firms develop products, processes and capabilities in the domestic market before exporting, Born Globals founder's international experience plays an important role in enabling rapid internationalization. Early on,

academia distinguished this feature. For example, McDougall et al. (1994) and Madsen & Servais (1997) concluded that it is the entrepreneur behind the firm that determine the internationalization path, with regards to his or her knowledge, experiences and networks. This has later been confirmed several times. For instance, Gabrielsson and Pelkonen (2008) showed that the global vision of the entrepreneur was the main influence of the rapid internationalization. Hence, Born Global literature claims that the internationalization process of Born Globals is accelerated by the prior knowledge of the founder which limits the need of incremental learning (Kuemmerle, 2002; Pellegrino McNaughton 2017).

Firm Strategy

The reason for a company to undertake a global strategy varies but several researchers have recognized that environmental influences often are a source to these rapid internationalization processes (Riapl & Knight, 2005). Born Globals predominantly derive from countries with a limited domestic market but with an advanced economy. Pressuring them to internationalize in order to grow. Entrepreneurial firms that operate in countries with larger GDP such as the United States are less likely to internationalize (Arbaugh et al, 2008).

Furthermore, Born Globals are more common in knowledge-intensive organizations competing in dynamic high-tech markets. These industries are characterized by short product life cycles and the firms are subjected to disruptive innovations (Vasilchenko & Morrish, 2011). With many short-lived business opportunities, the need to gain first mover advantages in the global market increases, which makes early internationalization vital (Sapienza et al, 2006; Gabrielsson and Kirpalani, 2014). According to Bell et al (2003) the competitive advantage of Born Global firms is their first-mover advantage. This view considers a Born Global firm as a strategic option, since Born Globals reach a large international scope (Oviatt and McDougall, 1989; Bell et al, 2001; Chetty and Campbell-Hunt, 2004; Pimenta & Joswig, 2017). A large international scope is high number of export markets and high stimuli for psychic distance, i.e. diverse and global presence (Kuivalainen et al, 2007).

2.1.5 Born Globals & International Scope

However, Born Global research during last decade about the two attributes, international scope and psychic distance, have been criticized. It is now suggested that Born Globals are not that independent of the domestic market nor psychic distance as Born Globals literature initially assumed (Hashai and Almor, 2004; Dow, 2005; Kuivalainen et al, 2007; Lopez et al 2008; Nordman & Tolstoy, 2014). For example, Chetty & Campbell-Hunt (2004) proved that the home market continues to be important for Born Globals, primarily as operations in the home-market work as a way of proving their product or idea before entering other markets. Their study also showed that several Born Globals used the domestic market as a way of increasing its credibility before going abroad. Despite fulfilling the definition of a Born Global, stimulus for psychic distance influence their internationalization so that they tend to focus on markets close to home (Hashai and Almor, 2004; Chetty & campbell, 2004; Kuivalainen et al, 2007).

Against this, several authors have emphasized the need of measuring international scope in a more adequate way (Crick, 2009; Lopez et al, 2009). It should not be limited only to country borders, as in the definition of Knight (1996), but also shed light on the differences between the domestic market and the entering markets. For example, Knight (1996) showed that two types of Born Globals exist which he called "true Born Globals" and "born-internationals". The former of these were described as startups

with operations in several and psychologically distant foreign markets whereas the latter were described as startups with operations in several but close markets. Lopez et al. (2009) also focused on which market the firms internationalized to and distinguished between "Born Regional" and "Born Global" firms by only considering international markets as a market outside the firm's home continent. In addition to these attempts of conceptually developing the Born Global term, several new definitions of Born Global have been suggested, e.g. 10 % of firm turnover has to be in each of the triad markets of North America, Western Europe, and South East Asia (including Japan) (Crick, 2009). In short, today's literature state shows a discrepancy between possessing a global approach from inception and actually reaching a large international scope.

2.1.6 Aggregated View of Born Global Literature

The literature reveals considerable differences of opinion regarding attributes and dimensions of Born Globals. With that said, building on Chetty and Campbell-Hunt's (2004) synthesis on traditional view and Born Global view, we conclude that recent literature identifies a new distinguished view on Born Globals' internationalization process (Chetty & campbell, 2004; Lopez et al, 2008; Nordman & Tolstoy, 2014). This thesis will entitle it as revised Born Global view. Reviewing traditional view and Born Global literature, in Table 2.1 below, one sees a continuous debate regarding the extent of effect from stimuli for psychic distance on the internationalization process. It is known from previous research that psychic distance is the strongest independent variable on international scope (Chetty & campbell, 2004; Johanson & Vahlne, 2009). Therefore, high psychic distance can significantly limit the international scope. As Table 2.1 shows below, stimulus for psychic distance continues to play an important role for the internationalization of Born Globals. This is the underlying reason for recent cases of Born Globals path dependency, described in table 2.1 as revised Born Global view under *time & scope* and *psychic distance*.

In summary, the revised view shows that the international scope of Born Globals might be lower than initially outlined. Both Kuivalainen et al (2007) and Rugman & Verbeke (2004) have pointed out the scope of internationalization as an overlooked research area in need of further examination. Even though several researchers have recognized the importance of an international scope as a competitive edge, few have addressed the strategic perspective to increase scope once a firm has adopted a global approach (Bell et al., 2003; Kleinschmidt et al 2007; Hagen & Zuchella, 2014) Hence, there is a need to shed light on the strategic perspective on how Born Globals can decrease the effect from stimulus for psychic distance in order to reach a larger international scope.

Below are the most frequently cited and influential articles discussing each view of internationalization attributes. The revised Born Global view represent extensive mapping of Born Globals from 2004 and forward that have found cases of limited international scope.

Internationalization Attributes	Traditional Stages View	Born Global View	Revised Born Global View
Influential Studies	(Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977; Cavusgil 1980)	(Knight and Cavusgil, 1996; Madsen and Servais, 1997; Oviatt and McDougall, 1997; Katz et al, 2003; Rialp et al., 2005; Nordman & Tolstoy, 2008; Kumar, 2012; Andersson & Wictor, 2012)	(Chetty & Campbell-Hunt, 2004; Hashai and Almor, 2004; Dow & Karunaratna, 2006; Kuivalainen et al, 2007; Lopez et al, 2008; Almor, 2013; Nordman & Tolstoy, 2014)
Time & Scope	Slow and gradual internationalization.	Rapid and simultaneous internationalization. Crucial to firm success.	Faster than traditional view but gradual internationalization.
Psychic Distance	In order of psychic distance. Domestic market first.	Psychic distance irrelevant.	Psychic distance relevant, somewhat path-dependent to domestic market.
ICT & Networks	Not central to internationalization.	Key enabler of global reach.	Key enabler of global reach.
Experience & Learning to internationalize	No experience expected. Learn from accumulated experience.	Rapid learning due to superior prior international experience.	Rapid learning, but international knowledge is accumulated from experience.
Firm Strategy	Not central to firm's motivation to internationalize.	Realization of competitive advantage requires rapid, full internationalization.	Realization of competitive advantage requires rapid, full internationalization.

Table 2.1 *- Aggregated view of literature on Traditional view, Born Global view and revised Born Global view*

2.2 Resource Based View

The resource based view (RBV) was proposed by Wernerfelt in 1984 as an attempt to explain a company's competitive edge by regarding available resources. The view gained popularity and Barney (1991) expanded on the concept to specify resources that enable firms to implement strategies that render them more effective. Example of resource are; assets, organizational processes, firm attributes, knowledge. Building on these notions, the RBV came to be used as a business management tool to assess strategic resources of firms. One example is Barney's (1991) criterias which allowed assessment of whether a resource presents a competitive advantage or not.

2.2.1 Dynamic Capabilities Approach

From a Resource Based View, the key to discovering and developing the firm's competitive advantage lies in how it accumulates and use resources (Wernerfelt, 1984). Hence it is suggested that a company's success depends on the internal resources. Due to changing business environment, Teece et al. (1997) developed from the RBV the Dynamic Capability Approach. The approach highlights resource renewal and how internal processes build firm specific capabilities. A company must be flexible and responsive to changes in order to stay competitive. The concept was further concretized by Pavlou & El Sawy (2011)

who distinguished between Operational- and Dynamic Capabilities. The former was described as the day-to-day activities whereas Dynamic Capabilities reconfigure and adapt the Operational Capabilities to the environment, in order to keep them competitive (Pavlou & El Sawy, 2011). Makadok (2011) described Dynamic Capabilities as something being built up in a firm, since they become embedded in the organization over time; from processes, routines and ways of combining the resources.

2.2.3 Dynamic Capabilities in Internationalization

Firms that internationalize are described as accumulating capabilities, such as learning and cultural adaptability in each new market they enter (Zahra et al, 2006). This is in line with the reasoning from the Uppsala Model where firms internationalize by incremental learning (Johanson & Vahlne, 1977). Hence, the success of a firm in the global market is not only dependent on the operational capabilities of a firm, but also its ability to reconfigure and adapt to the international environment, i.e. dynamic capabilities. Winter (2003) addressed the issue of multiple layers and different interpretations of operational and dynamic capabilities. Winter suggested that capabilities that would change the product or the customers and markets served are dynamic capabilities and not operational.

Several researchers have focused attention towards the dynamic capability perspective of internationalization, but until now they have only contributed with isolated insights between specific capabilities leading to particular performance implications (Prange & Verdier, 2011) For example, innovation capability as a predominant factor for rapid internationalization (Knight and Cavusgil, 2004). O'Grady and Lane (1996) emphasized that internationalization is an ongoing learning process that firms need to undertake in order to stay competitive. Despite this, the understanding of dynamic capabilities and the strategic guidelines on which capabilities firms need to build in order to succeed internationally, is limited (Gassman & Keupp, 2007). According to Rialp & Knight (2005) "the organizational capability perspective could constitute one of the most promising theoretical frameworks from which to explain and interpret not only the emergence of early internationalizing firms but also its further development in the form of rapid and sustained international growth."

Empirical research has shown that the most immense challenges in firms' internationalization processes are cross-cultural barriers in terms of beliefs and stereotypes, verbal language, social rules, traditions and values. Hence, learning foreign languages and enacting in cultural instructing has been advised as solution to organizations in order to develop their capabilities (Greblikaite et al, 2010). For larger companies, this can be done by investments in education of the staff, through e.g. seminars. However, this is not applicable for SMEs and startups due to limited financial resources.

With that said, the approach of distinguishing dynamic capabilities has been a central component in shaping theory on internationalization processes. Foremost, this approach has helped structure the research on Born Globals (Teece et al. 1997; Preece et al, 1999). This has been done by first assessing Born Globals' resources objectively. For instance, Knight & Cavusgil (2004) stated that prior international experience is critical for Born Globals, RBV also suggests this. Secondly, by focusing exclusively on resources as source of competitive advantage, it opens up for an analysis of the difference between Born Globals and other types of companies, e.g. traditional firms (Sapienza and Almedia, 2000).

2.2.4 Virtual Teams

Building on importance of necessary capabilities and global knowledge, a growing phenomenon in the international business world is the use of Virtual teams (Cascio, 2000). It is defined as teams that with the use of communicational technologies are able to work across geographical, temporal, cultural and organizational boundaries to achieve their common goal (Schaubroeck & Yu, 2017). In this thesis, the definition is limited to teams that work across geographical border by the use of communicational technologies (Jarvenpaa et al, 2004). It could be a tech company where the founder managers operations in the US nad have front-end programmers in Spain and back-end programmers in Bulgaria. Research has until now focused on virtual teams in MNCs and examined their internal resources, by isolating their dynamic capabilities and discovered what generate their competitive edge. According to Powell et al (2004) virtual teams represent an organizational form that could revolutionize the workplace due to the flexibility and responsiveness it implies. Furthermore, virtual teams is also a possibility for organizations to overcome and leverage their scarce resources by new types of collaboration (Munkvold & Zigurs, 2007).

2.2.5 Virtual Teams Capabilities and Challenges

Due to the geographic dispersement of virtual teams they are characterized by diversity in terms of culture and nationality (Elsevier, 2008). Virtual teams therefore allow organizations to attract the best talents from all over the world (Bergiel et al, 2008). However, the achieved diversity is often associated with conflicts and difficulties in communication (Pinjani & Palvia, 2013). Research has also shown that several different cultures within a team can lead to misunderstandings and that the ability to share knowledge with each other is inhibited. According to Gibson et al (2006) this has negative effect for virtual teams with regards to their innovation capability, since barriers in terms of language and cultural differences hinder innovation. Global Virtual teams also have limited face-to-face interaction which might have a negative effect on the knowledge sharing culture due to reduced socializing in the teams (Nonaka et al, 2000). Debmalya et al (2012) argue that a consequence of these challenges is that leaders of virtual teams must apply appropriate capabilities in order to develop the organization's members' ability to cope with these challenges internally.

2.2.6 Virtual Teams in Internationalization Processes

Virtual organizational structures feature various distinguishable dynamic capabilities. In particular, many of the identified capabilities are highly related to improved performance for MNCs and SMEs. First of all, the digital age not only allows teams to act with each other virtually but have also helped companies foster virtual connections with clients all over the world. This has led to a positive effect on export performance of SMEs (Sinkovics et al, 2013). But when it comes to organizing the company as a virtual team the addressed challenges of for example time zones and culture differences cause major transaction costs for the company. These forces them to learn capabilities to mitigate the challenges. For example, Katz et al. (2003) identify the capability of instant global access and Kaupilla et al. (2011) found that the teams draws upon strengths of social ties across cultures. Looking at this from an internationalization perspective it can be concluded that this creates a "pull" capability building effect, where the internal knowledge can be used when working with clients in an international setting (Pinjani & Palvia, 2013). This suggests that this combined approach mitigates the negative effects of physical and organizational distance to host market, that otherwise only happen through experiential learning from the internationalization process (Johanson & Vahlne, 1977).

Looking back at internal capabilities, Batarseh et al. (2007) found that virtual teams are being increasingly utilized due to their ability to bring together diverse knowledge and experience from individuals who are not geographically proximal. Forming these teams is especially useful for projects that demand cross-functional or cross boundary skilled inputs. The teams are also useful for successfully respond to changing business environments that occur in today's hyper competitive global landscape (Harvey et al 2004). As Harvey et al (2004) pointed out, one of the most critical organizational capabilities is learning to adapt to the new hypercompetitive tech global landscape. The capabilities needed in this evolving competitive context are increasingly employee centric, particularly when related to those employees who are performing knowledge-based teamwork in structures like global virtual teams. This is reflected by Martins et al. (2004) who found that virtual teams that produce global knowledge produces better outcomes and Muzychenko (2008) who found that these teams are better at recognizing market opportunities.

However, Schaubroeck & Yu (2017) recognize that virtual teams' application might differ in many aspects. It is argued by Badrinarayanan and Amett (2008) that research about virtual teams is in its nascent states and that many areas affecting virtual teams is yet not examined. Hence, even though dynamic capabilities in virtual teams in MNCs have been proven important for their competitiveness, research has yet not shed light on virtual teams in Born Globals and their dynamic capabilities.

2.3 Research Gap

In summary, existing literature on the internationalization process highlights the importance of an international scope as a competitive advantage. The revised Born Global view, identified in section 2.1, highlights the challenge Born Globals have regarding the ability to internationalise without being path-dependent to their own domestic market in terms of being affected by psychic distance. Furthermore, as discussed, existing literature lacks the strategic perspective on how to decrease the effect of psychic distance and therefore increase scope (Jones et al, 2011).

On the other hand, literature has pointed out the Dynamic Capability approach as highly explanatory for understanding internationalization processes. Virtual teams in MNCs have been examined and researchers have concluded that they possess a huge potential to foster capabilities that are very beneficial for an agile and fast internationalization process. This is because their ability to develop capabilities to cope with their internal diversity can be translated into the external environment (Pinjani & Palvia, 2013). However, there is a lack of knowledge surrounding if the same reasoning can be applied on a virtual organizational structure in Born Global. This would also be a plausible strategic option for decreasing the effect of psychic distance that would in turn increase observed limited international scope (Badrinarayanan & Amett, 2008). The identified research gap is therefore the absence of knowledge regarding dynamic capabilities in Virtual Born Globals and their impact on international scope. This is shown in Figure 2.1 as the intersect between the two research fields.

Born Globals Literature   Research Gap   Dynamic Capability Approach in Virtual Teams
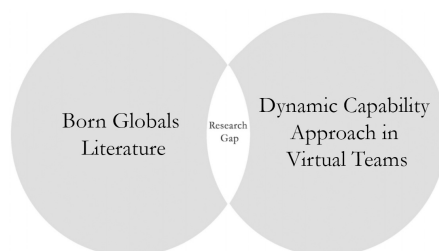
Figure 2.1: *Identified Research Gap*

3. Theoretical Framework

The first section of the theoretical framework provides the foundation for analyzing the proposed increased international scope of Virtual Born Globals. The second section discusses proposed capabilities that can explain the larger international scope of Virtual Born Globals.

The theoretical framework will be used to map the stimuli for psychic distance and operationalize Virtual Born Globals' international scope. It combines findings from Born Global literature's view about how stimulus for psychic distance influence internationalization, and dynamic capability approach on virtual teams in MNCs. The two theoretical foundations constitute the relationship this thesis aims to test with the following empirical study.

3.1 CAGE Framework

In order to understand and explore the research gap's international scope element - the CAGE-model will be used to analyze whether virtual organizational structures in Born Globals result in a larger international scope compared to Born Globals without virtual structures (i.e. non-Virtual Born Globals). The CAGE-model measures psychic distance stimuli, i.e. the differences in absolute measures on a country level that influence the psychic distance. The high inherent complexities in virtual organizational structures motivate the choice of Pankaj Ghemawat's (2001) highly acknowledge CAGE-model. The model helps actors interpret stimuli for psychic distance mentioned in past research, e.g. culture and geographic distance (Dow, 2006, Johanson & Vahlne 2009). In short, the CAGE framework estimates the aggregated stimulus; (C)ultural, (A)dministrative, (G)eographic and (E)conomic market distance between two markets. Furthermore, CAGE-model incorporates parameters from Hofstede (1984) and Dow and Karunaratna (2006). These two sources are frequently used in Born Global view when mapping psychic distances, hence CAGE-model have high theoretical fit to earlier literature. The CAGE-model therefore supports the notion of market selection in higher order of market distance, i.e. path dependency to domestic market as observed in literature review. The model will therefore be useful for mapping the international scope during first three years for both Virtual Born Globals and non-Virtual Born Globals within revised view, seen in section 2.1. The parameters of distance encompassed in this rationale are organized in four categories, described below:

Cultural distance: a result of differences in national cultural attributes such as; lack of connective ethnic or social network, different religions, lack of trust, social norms, different language. Cultural distance captures the informal forces that result in a disturbance in the flow of information. Hence, for tech-companies exporting a standardized product, cultural differences can sometimes be hard to overcome (Ghemawat & Siegel, 2011).

Administrative distance: reflects societal differences. It can take the shape of lack of colonial ties, lack of common currency, political hostility and lack of shared regional trading bloc. Administrative distance captures the formal constraints, were Born Globals must adhere to laws and rules formed by the institutional frameworks. It can therefore be a major transactions cost for Born Globals, as these distances must be addressed.

Geographic distance: is the physical distance between countries. In the context of tech-companies, time-zones is the strongest variable within geographic distance (Dafoulas and Macaulay, 2002; Shin, 2005). This definitive variable cannot be worked around, only limited.

Economic distance: refers to differences in variables such as rich or poor consumers and differences in quality and cost of natural resources, human resources and information knowledge. For standardized products sold over internet, high economic distance mean the inability to serve two distant market with the same product offering at the same time (Ghemawat & Siegel, 2011).

3.2 Theoretical Benchmark and its Constituencies

Depending on industry the variables are weighted so each parameter gets an appropriate influence (Ghemawat, 2001). Therefore, the parameters will be weighted in accordance to tech-industries. The weighted parameters will be used to objectively map national idiosyncrasies and the resulting stimuli for psychic distance between domestic market and host markets.

The conceptualized international scope of Virtual Born Globals will be contrasted against this thesis' theoretical benchmark, which is constituted by selected research that represents the revised view on Born Globals. The conceptualization is depicted in Table 3.1 - showing the theoretical benchmark and how Virtual Born Globals will be compared. The benchmark represents the internationalization pattern during first three years of Born Globals within the revised view. The choice of literature from the revised view for the theoretical benchmark were examined according to following parameters (I) scientific acceptance (II) empirical validity, (III) compatibility to tech-industry and (IV) transparency regarding time and countries in the internationalization process. This resulted in the selection of three articles out of the seven articles in the revised Born Global view.

Chetty & Campbell-Hunt (2004) has been chosen for its scientifically acceptance regarding the mapping and review of their empirics compared to former literature on Born Globals. Building on Johanson and Vahlne (1977), Knight (1996) and Madsen and Servais (1997), the article offers distinct taxonomy of attributes for internationalization which have been adopted by this thesis. Almor (2013) and Lopez et al. (2008) were chosen for their detailed studies on tech Born Globals. The first study uses sample from Israel and the second focuses on Costa Rica. Both studies show high degree of transparency in internationalization processes, and have a concise focus on only tech-companies. Using a theoretical benchmark will allow this thesis to research the international scope in a deductive manner. This will allow for conclusive results regarding potential differences in international scope.

	Theoretical benchmark	**Virtual Born Globals**
Psychic Distance	Entry in order of higher market distance - path dependency similar to traditional view	N/A - CAGE-output in contrast to benchmark
Time & Scope	Faster than traditional view but gradual internationalization.	N/A - CAGE-output in contrast to benchmark

Table 3.1: *Differences between non- and Virtual Born Globals is psychic distance and international scope*
Sources: *Chetty & Campbell-Hunt (2004), Almor (2013), Lopez et al. (2008)*

3.3 Dynamic Capabilities in Virtual Team

In order to gain a more holistic understanding of the proposed increased international scope, proposed key capabilities in virtual teams outlined below will be tested towards the outcome of the CAGE-model. As dynamic capabilities are seen as the most relevant in the internationalization process, this thesis will only focus on these (Winter, 2003). A map of proposed capabilities that are relevant for international expansion in accordance with research on psychic distance, will constitute the second part of theoretical framework (Easterby-Smith & Prieto, 2008) It will in the context of this study help uncover the interplay between virtual teams' dynamic capabilities and Born Globals' international scope. These capabilities are proposed to decrease the effect of stimulus for psychic distance, hence increase international scope. The underlying justification for propositions is that the capabilities have been documented in virtual teams in MNCs and are motivated to be relevant for the challenges stimulus for psychic distance implies.

3.3.1 Dynamic Capabilities

Cultural Capabilities

Ghemawat (2001) and Dow et al. (2008) both highlight culture and the sub factors; e.g. language, religion ethnicity and social norms, as an important dimension for psychic distance. Cultural differences within virtual teams in MNCs have been thoroughly researched (Kayworth & Leidner, 2000; Johanson et al 2002). Studies have found that virtual teams are exceptionally good at mitigating the effect from cultural differences in export by an effort to actively understand and accept the differences within the team (Sarker & Sahay, 2002; Robey et al., 2009). This is mostly due to the fact that virtual team members are expected to become interdependent and successfully negotiate cultural differences (Dafoulas and Macaulay, 2002; Dekker et al., 2008; Hunsaker and Hunsaker, 2008). Hence, the diverse teams enable a high degree of collective sense-making of cultural differences' impact on business. It enables knowledge and experience sharing that capture these capabilities in the organization (Merali and Davies, 2001; Zakaria et al., 2004; Furst et al, 2004; Malhotra et al., 2007; Sridhar et al, 2007). Furthermore, Goodman (2012) argues that by internally developing these skills the organizational members become aware of their own cultural perspectives and misunderstandings which enables the development of a larger world view and a greater perspective and capability of coping with different cultures. The capabilities to handle and exploit cultural differences in an internationalization context is therefore proposed to decrease psychic distance, hence leading to increased international scope of Born Globals.

Time-zones Capabilities

Ghemawat (2001) also addresses geographical distance as a stimuli of psychic distance. Within the scope of Born Globals and this thesis, the tech-industry is mostly affected by the geographical distance in the form of time zones (Dafoulas and Macaulay, 2002, Shin, 2005). Ebrahim et al. (2009) found that forming and performing in virtual teams in MNCs is useful for projects that require cross-functional or cross boundary skilled inputs. A key to their value creation is to develop capabilities that help them overcome time zone issues. Hence, the dynamic capability of being able to navigate internationally in many times zones, is proposed to decrease psychic distance and therefore increase the international scope.

Administrative Capabilities

Virtual teams are able to tap selectively into center of excellence, using the best talents regardless of location (Cascio, 2000, Furst et al, 2004; Fuller et al, 2006; Ebrahim, 2009). This creates an organization

which has high proximity to several of different markets. Since administrative distance is a result of lack of connection in several different variables, such as absence of political associations, the diverse workforce makes up for this absence. The teams will therefore, for example, have better understanding for differing laws and policies in the world. Hence, capabilities that deal with administrative distances, are proposed to decrease psychic distance, resulting in increased international scope.

Economic Distance Capabilities

Once again, due to diverse workforce in terms of nationalities, virtual teams have a high understanding of the economic situations in different countries. This is reflected in the unprecedented level of flexibility and diverse contribution of individual member in the organization (Powell et al, 2004; Hunsaker & Hunsaker, 2008). Even though there would be economic distances no matter which organizational structure used, virtual teams' flexibility and responsiveness is proposed to decrease psychic distance, hence leading to increased international scope.

3.4 The Integrated Framework

In order to address the purpose of this thesis, which is to examine the interplay between Virtual Born Globals' unique capabilities and psychic distance in the internationalization process, an integrated framework is proposed (see Figure 3.1). The relationship that is being tested between Virtual Born Globals and international scope is as follows - stimulus are the absolute differences between markets, and psychic distance is how companies perceive these absolute differences. The dynamic capabilities, shown in Figure 3.1, are proposed to decrease the level of psychic distance, i.e. perceived challenges from stimulus to all markets. Research question 2 (RSQ2) address this relationship. Additionally, because the level of psychic distance determines whether a company chooses to enter a certain market, Virtual Born Globals are proposed to choose markets with higher stimulus as a result of decreased psychic distance. This results in an internationalization pattern to markets with high stimulus for psychic distance, which together with number of markets defines international scope. RSQ1 address this relationship and is tested by comparing Virtual Born Globals to theoretical benchmark. This thesis therefore aims to test both the overall link between being a Virtual Born Globals and increased internationals scope, and which dynamic capabilities lower the psychic distance, i.e. how one perceives the stimulus.
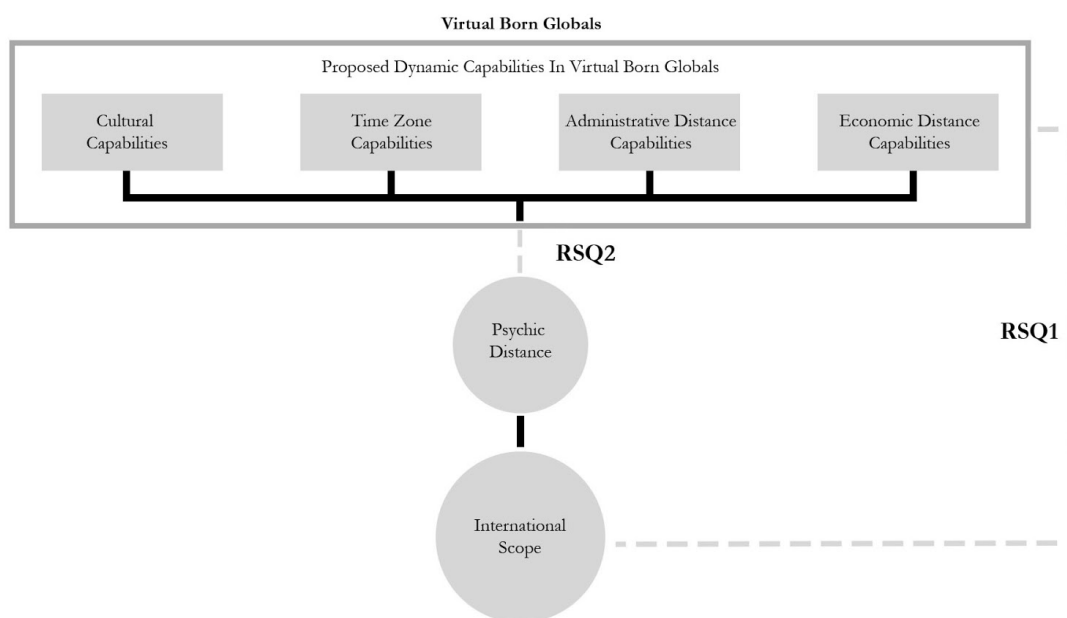

Figure 3.1: *The Integrated Model*

4. Method

This section describes the methodology used for collecting and analyzing empirical data. Firstly, the scientific approach is discussed, followed by a presentation of the overall research design. The methodology continues by justifying sample selection, method for data gathering and data analysis. It concludes with a discussion of limitations connected to method.

4.1 Scientific Approach

As portrayed by the theoretical framework, fundamental scientific areas are built on existing theories within several disciplines. Therefore, the research questions aim to test how Virtual Born Globals compare to non-Virtual Born Globals in terms of international scope, and what capabilities have explanatory power. From this aim, the scientific approach can be determined.

Even though the study builds on existing theoretical foundations, the thesis introduces Born Globals with a new dimension of organizational structure. Therefore, the scientific approach for this study can be considered that of intermediate theory, i.e. it is positioned between Born Global literature and virtual teams' capabilities whose overlap have limited research. Secondary sources used for theoretical benchmark and proposed capabilities are contrasted to primary sources from this thesis study. Even though the research questions allow for development of testable hypothesis, this thesis examines research questions with theoretical benchmark and its propositions as starting point. This choice is made to reduce risk of non-nuanced understanding, and to enable a more seamless integration of theory and empirical data (Andersen, 1998). Considering advantages and disadvantages with a deductive, inductive and abductive approach, an abductive approach was evaluated as the most effective, which is detailed below.

In **Study 1,** which intends to answer RSQ1, a deductive approach with quantitative data gathering was considered as best fit (Jacobsen et al, 2002). Study 1 focuses on data on export markets and will together with secondary data on CAGE parameters for all countries, analyze proposed increase in international scope. The deductive approach is further supported by the fact that literature on Born Globals frequently examines relationship and patterns in a deductive manner (Jones et al, 2011).

In **Study 2,** which intends to answer RSQ2, an abductive approach with a qualitative research method was the best fit. This was because proposed capabilities had been abduced from theory but tested and further developed through empirical findings. This allowed the thesis to conduct the qualitative study without stricter theoretical guidelines. Furthermore, the qualitative element will result in a more holistic understanding of the underlying mechanisms (Bryman & Bell, 2011).

The main reason a hybrid approach is used, is to cover the research gap's novelty with both an accurate and explorative approach. The two studies complement each other which makes it suitable for unexplored intermediate literature fields (Jacobsen et al., 2002). A quantitative study provides rigidity, but would be to static to capture the wanted data in Virtual Born Globals (Anderson, 1998). Gummesson (2000) strengthens the choice of a qualitative element by suggesting that it gives a more nuanced and deep understanding of organizational mechanisms compared to a quantitative study. However, the inherent

challenge of generalizability in a qualitative study is somewhat mitigated with the use of a quantitative element.

4.2 Research Design

The approach of the thesis is a mixed research design, where the method is divided into 3-phases. The first step is a literature investigation, i.e. an exploratory approach to identify gaps and aggregate previous research within the fields (Creswell, 2009). By adopting coherent patterns of theories spread from 1975-2017, the study aims to mitigate the effects that changes in management fashion can have on results (Abrahamson, 1996). Secondly, the identified gaps and initial propositions are investigated with a qualitative pre-study with a small but holistic sample. Lastly, the propositions are tested with the hybrid approach of both quantitative and qualitative data gathering. Testing RSQ1 by contrasting CAGE-output from survey between virtual- and non-virtual Born Globals (theoretical benchmark), and testing RSQ2 with qualitative data from semi structured interviews and quantitative data from survey. This thesis hopes to discover new relationships by combining both quantitative and qualitative data, since only a limited number of studies have done this earlier in Born Global literature (Jones et al, 2011).

The research design, as with all research, faces degrees of limitations and inability to predict outcomes. Quality of data is discussed by the end of the method section. Furthermore, the ethical aspects were considered when constructing and executing the chosen research design. As advised by Bell (2014), honesty, objectivity and neutrality were of key focus in communication and collection of data.

4.2.1 Literature Research

With international entrepreneurship as point of departure for exploring new streams of research, the first step was to engage with secondary data from various sources. The search of finding recent articles and publications within the field was done by the use of libraries and databases such as Business Source Premier. By understanding current view of the field one could backtrack influential publications via citations (Creswell, 2009). Literature reviews about Born Globals from researchers such as Rialp & Knights (2005) and Jones et al (2011) were also used. This screening enabled the thesis to ensure both breadth and depth in the initial research. As a result, two different research streams were identified, with limited overlap.

4.2.2 Pre-study

Since the research streams have not been examined together before, we conducted a pre-study with use of primary sources. The objective was to learn more about this new empirical phenomenon Virtual Born Globals and validate our proposed research questions. In addition, the objective of the pre-study was to develop questions that could capture the capabilities of Virtual Born Globals for Study 2.

Therefore, the pre-study was three exploratory interviews where we gained knowledge about both start-ups with desire to internationalize and Virtual Born Globals specifically. The first interview was conducted with Outpost, a big co-working space in Bali that incubate many employees in virtual organizations. The second and third interview were conducted with two tech startups that aim for internationalization; Accomplice & Foodflow. See Appendix 4.2 for more details about the companies.

Concluding remarks from the pre-studies

Dialogues from the interview generated rich empirical findings that proved to be useful in validating the research gap and generating appropriate testable propositions based on existing literature. Small extract of quotes supporting initial research gap are seen below:

> *"Since our funding in 2012, we have seen a rapid increase of interest from employees working in globals startups with virtual organizational structures "* - Outpost

> *"Many virtual organization starts here since they are from different areas around the world. They do not have a home market but see the whole world as their market"* - Outpost

> *" We see ourself as a global player and would like to internationalize rapidly. However, first we want to make sure that we are successful in the Swedish market"* - Accomplice

> *"At the moment we are trying to see which market that is most similar to the Swedish market, to reduce the risk. But in the coming years, we want to be present in several markets"* - Foodflow

These quotes further supported the relevance of studying Virtual Born Globals' relevance for increasing scope. Furthermore, we discussed capabilities that are important in organizations for the internationalization process. This helped us constructing the questions for the interviews in Study 2.

4.2.3 Choice of Units of Study

Sample Study 1

As Study 1 intends to generate results that are representable for the average Virtual Born Global we selected the sample by using international online HR-platforms. These sites collect firms that are in need of a remote workforce since they are working with geographically dispersed team (e.g. weworkremotely.com). We defined Virtual Born Globals as having employees in at least two different countries, export of more than 25% of sales the first three years and mainly communicating internally by the use of technology (Jarvenpaa et al, 2004). In total we targeted 153 companies who all fulfilled the Virtual Born Global criteria. These companies derived from different geographical locations (from Sweden to South Africa) and had different degree of geographically dispersed structure (some without any office at all). In order to strengthening the internal validity, targeted companies were chosen because of their similarity to the theoretical benchmark. This meant that they in addition to meet the criteria for being a Born Global, as defined in the literature review, had to be in the tech-industry. In the end the sample was represented by 30 respondents (after incomplete surveys had been removed) which allowed for a deeper quantitative analysis.

Interviewees Study 2

For the purpose of Study 2, eight different Virtual Born Globals were chosen from the same sample, as units of study. The same criterias as in Study 1 applied, but with additional two criterias to increase generalizability. We made sure that these eight had (1) different degree of geographic dispersion in workforce (from employees in three to nine different countries after three years) and (2) founders with different nationalities. Even though we focused more on the selection of firms we also made sure that the interviewee had been active from inception in the firm, hence having the right knowledge and insights

about the firm in general and the internationalization in particular. The complete list of interviewees can be found in Appendix 1.

4.2.4 Quantitative Gathering of Data

The main purpose of our quantitative study was to test the proposed increase in international scope for Virtual Born Globals. This was done by collecting empirical data asking about the firm's internationalization process and then using secondary data to operationalize it as CAGE-output. The output was then analyzed as international scope since it represents the stimulus for psychic distance between markets. The survey also aimed at gathering data that, in combination with the qualitative data, could be used to explain the proposed international scope.

The survey was made in the tool Google Form and consisted of closed-ended questions in order to facilitate comparison in the analysis which is preferred in quantitative studies (Bryman & Bell, 2011). We made sure that the survey was easy to understand by pre-testing it on three different companies before sending it out to the sample. Moreover, we bared in mind the advice of Blumberg et al (2011), that surveys should not take longer than 10 minutes to fill out and formed a survey that took around five minutes to complete. Appendix 2 shows the complete survey.

Dependent variable: International scope

In order to answer RSQ1 the survey measured the dependent variable international scope. To operationalize the international scope with data into CAGE-output, the participants were asked to state the nationality of the founder/founders. The reason for using the nationality of the founder is that the nature of a Virtual Born Global makes it difficult to decide a domestic market (as concluded in the pre-study). Earlier Born Global research has emphasized the importance of the founders' knowledge, network and international experience for the internationalization process (Oviatt and McDougall 1997; Pellegrino McNaughton 2017). This justify using the nationality as the "domestic" market. Therefore, the country the founder is from can be seen as a proxy domestic market.

The data collection about which countries the Virtual Born Globals had internationalized to was done by the use of "regions". The respondents were asked to fill in which regions they sold to after three years. The reason for using "regions" was to not tire out the participants, hence reducing the risk of "drop-outs". The validity of the regions is ensured and motivated by Crick (2009) and Lopez (2009) who suggest using continents instead of countries to measure international scope. Furthermore, the regions are based on United Nation's (2014) geoscheme which strengthen the validity and relevance of chosen regions (See Appendix 4). However, this is a middle-ground to ensure balance between quality and quantity.

The data about the founder's nationality and the data about which regions the firm had internationalized to within the three first years, allowed us to use the CAGE-framework.

Independent variable: Virtual Born Global

To ensure that all companies were geographically dispersed as in the definition of a Virtual Born Global, we asked the respondents to state in how many countries they had employees located in after three years. This data will create a deeper understanding of how the independent variable correlates to international scope.

Control variable:s Number of employees

The respondents were asked to state approximately how many employees they were in total after three years. This made it possible to control that potential differences in international scope were not influenced by the size of the firms.

Control variable: Comparability to theoretical benchmark

Bearing in mind the definition of a Born Global, i.e. at least 25 % of sales in foreign markets (Knight, 1996), we asked the respondents to state whether one country accounts for more than 75 % of their sales. This made it possible to remove those firms that did not fulfill our criteria to be a Virtual Born Global and hence were not comparable with the theoretical benchmark.

Psychic Distance (according to the behavioral models, i.e. perceived from executives)

To measure the firm's psychic distance, i.e. whether the firm perceive the internationalization as challenging, we used a 7-point likert scale, i.e. 1=Strongly disagree; 7=Strongly agree and adapted questions that are related to the stimulus affecting psychic distance (Söderlund, 2005). The reason for applying a 7-point likert scale is that it gives the respondent the opportunity to answer neutrally which helps avoid bias based on uncertainty or indecisiveness (Blumberg et al 2011). It consisted of seven questions investigating whether different parameters, e.g. language and cultural differences, have implied challenges for the internationalization process. Used question were inline with former studies on psychic distance, hence securing that this thesis is using validates measures. (Jacobsen et al, 2002; Dow & Karanurata, 2006).

4.2.5 Qualitative Gathering of Data

For the purpose of the qualitative research we conducted semi-structured in-depth interviews with the eight companies. Hence, we used a prepared interview template that guided us throughout the interviews to make sure that we discussed the areas of interest (Lusterman, 1985). These areas included: background information about the firm and the founder, the internationalization process and the capabilities of the firm (See Appendix 3). However, we also allowed for new questions and discussions that derived from the context. This type of semi-structured interview is best used with an abductive approach and when there is not a possibility to interview someone more than once, which was the case due to limited accessibility to the firms as well as time constraints (Bernard, 1988). The interviews were held via skype or *hang-out,* had a duration of 60-90 minutes and were recorded and transcribed in a summary form. Several researchers in methodology have noted that phone interviews in qualitative data collection have several advantages. The advantages of logistical conveniences as well as enhancing access to geographically dispersed interviewees and greater flexibility for scheduling which was of high relevance for our study (Shuy, 2003; Struges and Hanrahan, 2004; Musselwhite et al., 2007; Stephens, 2007 Cachia and Millward, 2011). However, there are also many researchers that have pointed out concerns about telephone interviews since it is challenging to respond to visual cues, more difficult to build trust between the interviewer and the interviewee and because of the risk to lose contextual data, i.e. seeing and observing the individual in his or her natural habitat (Smith, 2005; Novick, 2008). Hence, by using video in Skype and Hang-out we benefited from the advantages of telephone interviews but mitigated the disadvantages. Moreover, to avoid biasing the results, we only provided limited background about the research question in advance with the participants.

The chosen questions build on the theoretical framework and its constituting literature in terms of dynamic capabilities and its impact on the international scope. Furthermore, the pre-study discussed the capabilities to ensure relevance in Born Globals. This ensures that the qualitative method gathers data that is valid and comparable to former literature, which is the purpose of this data gathering.

4.3 Data Analysis

Data collected from both the quantitative and qualitative study have been examined and structured in accordance with chosen theoretical framework. Using the framework as base for analysis created a certain process that follows the pattern of the framework. This is because the movement of the dependable variable, international scope, must be determined before being able to identify potential explanatory power of dynamic capabilities.

The data analysis starts by deductively analyzing the international scope by analyzing quantitative data together with CAGE-variables. This will make the proposition of increased international scope in Virtual Born Globals testable. Depending on result from first step (1), the next step (2) is to determine unique capabilities for Virtual Born Globals. This is done by contrasting qualitative data with proposed capabilities from theoretical framework. The last step (3) is to determine if there is explanatory power of each capability for the proposed increased international scope.

Using both quantitative and qualitative research pose the risk of being overloaded with volume and diversity of data (Bryman and Bell, 2011). To address this issue, the data analysis will be fitted in a general structure, where data is contrasted with theoretical framework, to ensure consistency (Yin, 2008). This overall structured approach makes the analysis more comprehensive and manageable.

4.3.1 Quantitative Data Analysis

Distance Variables Selection

The cage model's four parameters, that represents stimuli for psychic distance, use weighted variables to generate a unified output. This thesis has chosen to measure two variables for each parameter. Four steps were taken to assure that the correct variables for the context were used. Firstly, variables are derived through a structured approach, with the assumption that presented academic theory on psychic distance correctly explains reality. Using similar variables as previous literature should therefore generate a measurable difference between theoretical benchmark and Virtual Born Globals. Secondly, we used the input from the pre-study to understand the applicability and importance of each measure, in order to use variables that result in the highest possible validity in analysed data. Thirdly, similarly to step two, variables are adjusted for resource constraints. Lastly, each variable should be weighted in accordance to industry. This is to create an accurate depiction of real expansion pattern. In our case, i.e. the tech-industry, geographic distance should have less impact compared to cultural differences that change the customer preferences (Ghemawat & Siegel, 2009). The chosen distance variables given by Ghemawhat's (2001) CAGE Comparator tool and the tech-industry's impact multiplier per variable is given below, in Table 4.1 and on Ghemawat's website[1].

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[1] https://www.ghemawat.com/cage

CAGE Variables Used

Culture	Multiplier	Administrative	Multiplier
Common language	2.18	Colonial linkage	2.59
Social Norms (Hofstede)	2.46	Trade agreements	1.59
Geographic	Multiplier	**Economic**	Multiplier
Psychical distance	0.31	GDP per capita (pc)	0.96
Common border	2.21	Ratio of pc income	0.85

Table 4.1: *CAGE Variables used and their impact multiplier*
Sources: *Cultural Common official language CEPII 2002; Colonial linkage CEPII, 2002; TA/RB depending on flow, 2007; Economic Ratio of pc income, 2007; Geographic Distance (logged) CIA World Factbook, 2008; Share a common border, 2007, Hofstede's cultural dimensions, 2001.*

Theoretical Benchmark selection

In addition to the empirical data that covers Virtual Born Globals, a theoretical benchmark was needed in order to understand current non-Virtual Born Globals. An alternative to the use of a theoretical benchmark method would have been a comparative study with a method collecting empirical data on both types of Born Globals. However, this was disregarded due to two reasons. (1) Limited resources in terms of time would have made it difficult to accurately collect all data and (2) data on non-Virtual Born Globals would pose the risk of resulting in a limited geographic spread of domestic markets. The second reason is the strongest motivator for using a theoretical benchmark. Pellegrino & McNaughton (2017) argue that the domestic market is important for internationalization process, the empirical data on non-Virtual Born Globals must match the geographical spread of proxy domestic markets in the empirical data on Virtual Born Globals.

Furthermore, this choice of method could be compared to that of a meta-analysis. Meta analyses are most popular in medical studies but Stanley & Jarrell (1989) are two among many academics who argue that meta analyses are useful in business settings as well. What we know, there are no studies on Virtual Born Globals that are similar to the theoretical benchmark. Therefore, as the theoretical framework states (Section 3.1), the theoretical benchmark is based on selection criterion that ensures that the constituting theories match our scope and method.

Method of Analysis

The CAGE-model's output is only the first step of the data analysis. This output must be comparable to the theoretical benchmark in order to generate relevant conclusions for RSQ1. The process of analyzing the quantitative data therefore follows the following pattern:

(1) *Input of variables*: Variables that are needed to use CAGE-model are: (I) the proxy domestic market and the export regions collected through surveys, and (II) the variables within the CAGE parameters for each proxy and export region. An average value of all countries make up regions.

(2) *CAGE-output:* Is the augmented distance based on selected variables and multipliers. The result is the CAGE-output, which is the sum of all distances (in km) that represents the sum of all stimuli for psychic distance. Distance variables and their impact multipliers are mentioned in section 4.3.1. The CAGE-output is then calculated between proxy domestic market and every export regions for all 30 Virtual Born Globals and 30 Born Globals in theoretical benchmark. This is done by inputting all distance variables between the two markets and using appropriate impact multipliers for this industry. The generated CAGE-output therefore makes it possible to compare the level of stimuli for psychic distance in internationalization between the two types of Born Globals. The model development is depicted in Figure 4.1 below.
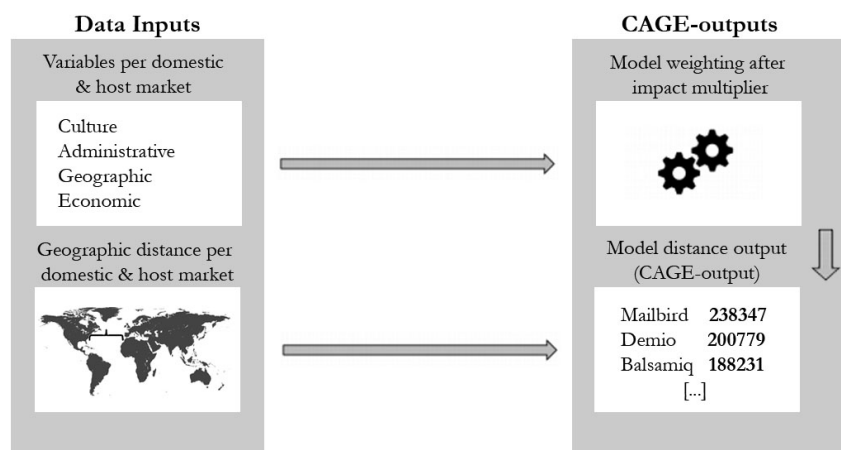
Figure 4.1: *Model Development*

(3) *Comparability to benchmark:* In order to contrast the sample's CAGE-output to the theoretical benchmark, all CAGE-outputs are summarized for each firm to create a total average value[2] representing international scope. This method is in line with the approach of Kuivalainen et al (2007). This creates a distinction between international scope for theoretical framework with employees in one country, and Virtual Born Globals with employees in two and more countries.

(4) *Regression Analysis:* However, to increase the explanatory power for the virtual organization structure and CAGE-model as a tool, a regression analysis will be conducted. It will test if the scope has any correlation to geographic dispersion in workforce. The correlation strength that is being used to validate analysis is further explained by Table 4.2, bearing in mind limitations of a small sample (n=30).

Correlations coefficient	Correlations strength
+/- 0.00 - 0.19	Very weak
+/- 0.20 - 0.39	Weak
+/- 0.40 - 0.59	Moderate
+/- 0.60 - 0.79	Strong
+/- 0.80 - 1.00	Very Strong

Table 4.2: *Guide to Spearman's rank correlations coefficient*
Source: *Statstutor (2013)*

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[2] Median value would not reflect to number of markets and the total distance accurately.

4.3.2 Qualitative Data Analysis

Inspired by the grounded theory analysis summarized by Hood (2007), this thesis analyzes the qualitative data by identifying lines of convergence in collected data and organizing the information according to these patterns. This is done by categorizing the transcribed empirical data in accordance with the proposed capabilities. From there, the empirical patterns are contrasted against the theoretical framework in order to understand if data follows theory on virtual teams in MNCs or provides new interpretations of it. Henceforth, this data analysis fits the abductive approach of the qualitative study. The result is the possibility to, as the theoretical framework suggests, test the explanatory power of each capability to increased international scope. Empirical observation therefore opens up for the possibility to accept or disregard proposed capabilities.

Hence, this is a continued step after Study 1. The purpose of the chosen data analysis method is to generate a holistic perspective of unique capabilities. As a last step, we use our quantitative data on perceived challenges with internationalization to see whether there is a relationship between capabilities and international scope.

4.4 Methodological Quality

The choice of using both qualitative and quantitative data is appropriate since the sources of data complement each other and the research field is unexplored (Jacobsen et al. 2002). However, there are several limitations with our study that has to been taken into consideration.

4.4.1 Internal Validity

Internal validity concerns whether the study measures what it intends to measure and if it exists a causal relationship between the dependent and independent variables (Malhotra et al, 2010; Bryman & Bell, 2011). The internal validity of the study is first presented in general and then separately for Study 1 and Study 2.

Limitations concerning both studies
There are several limitations concerning the internal validity in our study that has to be considered. First of all, since we are performing two different studies, the first quantitatively on scope and the second with qualitative data on capabilities, we are not able to prove causality between the proposed international scope and the proposed capabilities which is based on the qualitative data. However, previous studies on virtual teams in MNCs have shown that their capabilities are important for the internationalization process, hence our main purpose of Study 2 is to explore whether Virtual Born Globals possess the same capabilities. Despite this, we aimed at proving a relationship between identified capabilities and the scope. As a last step, we combined the capabilities (qualitative data) from Study 2 with the data from the survey (quantitative data) about perceived challenges associated with stimulus affecting psychic distance. For this question we used validated questions.

Another limitation of overall method is the notion of Psychic Distance. Ojala & Tyrväinen (2009) and Dow & Karunaratna (2006) both discuss the taxonomy within psychic distance. It should either be seen as psychic distance at a country level or individual level. Confusion and ambiguity can be found

throughout research on Born Globals when discussing psychic distance. A possible limitation could therefore be misinterpretation of psychic distance in selected research.

Limitations Study 1

Regarding the internal validity in Study 1, our theoretical framework has been operationalized using the established CAGE-framework which makes it theoretically substantiated. However, the fact that we conducted our survey on the internet reduces the internal validity. This is because we have not been able to control for time, effort and understanding from the respondents while answering it. Additionally, the retrospective empirical data can imply a survival bias of our sample.

Another limitation is the exclusion of data on geographic dispersion within the same country. For example, Unites States Virtual Born Globals may have workforce spread out within the country instead of outside of the borders. However, this is argued to be of less importance since this thesis observe stimulus and capabilities that are achieved once a firm crosses border to, for example, other cultures.

Limitations Study 2

The internal validity in Study 2 is affected by the fact that our research includes mature Born Global firms which implies retrospective empirical data. This could be a limitation in this study due to lost organizational memory (Jones et al, 1999). However, we tried to mitigate this effect by making sure that the interviewees had been active in the firm from inception. In order to increase the validity of Study 2 we did not give the respondents any background information about our exploration on capabilities beforehand, but only on internationalization. This reduced the risk of rehearsed and untruthfully answers from the respondents because of self-promotion, which in this context would have meant trying to appear as having capabilities that the firm does not have in reality.

4.4.2 External Validity

The external validity refers to the degree to which the findings of our study are generalizable across time, settings and groups (Jacobsen et al., 2002; Shadish et al, 2002). As the intention of our study is to generate results that are generalisable for Virtual Born Globals, it is necessary to discuss what we have done to increase the validity as well as the limitations that our study has.

Limitations Study 1

According to Shadish et al (2002) a large sample is generally likely to be valid across the whole population. The sample in Study 1 is relatively small, due to constraints in time and accessibility. Hence it is not likely that we have captured a sample that can represent all Virtual Born Globals in the world. However, we have aimed at a high external validity by targeting a width of Virtual Born Globals in terms of nationality of the founder and degree of geographical dispersion. Furthermore, we used quantitative metrics to measure scope which increases the likelihood that our findings are valid within a larger population (Yin, 2008).

Limitations Study 2

In order to reach the companies we send out a short description of ourselves and our research and ask people to participate in the survey and some in the interviews. Hence, we relied on volunteers with regard to the companies and not randomization, resulting in that there exists a risk for *self-selection bias.* This has the implication that those firm that voluntarily participated might have had special characteristics

impacting the research but that are not valid for the whole population. This bias was taken into account throughout the analysis.

Moreover, our survey and our interviews were conducted in English which might imply a language barrier. Therefore, companies that are not proficient in English might have rejected participating whereas those that are native English speaking might have been more willing to volunteer. This results in a problem due to the fact that language competence might affect the international scope.

4.4.3 Reliability

The reliability of a study refers to whether the results can be re-created using the same methodology (Andersen, 1998). To increase the reliability, we have carefully described our methodology which makes it more likely that the results could be replicated (Silverman, 2013).

To increase the reliability, we made sure to formulate an interview guide with questions to ensure that all interviewees answered the essential questions for our research question. We recorded all our interviews and transcribed them afterwards instead of relying on our own memory (Silverman and Marvasti, 2008). We also aimed at reducing our own interpretations of the collected data by writing a short summary separately immediately after the interview had been conducted.

However, a threat to the reliability of our study is that we categorize qualitative data which is a methodology that relies on subjective impressions of the author (Martinko & Gardner, 1985). With the ambition to mitigate this threat we coded and analyzed the interviews individually, hence we were able to limit the influence of each other and also reveal inconsistencies (King, 2004).

4.4.4 Alternative studies

An alternative method would have been to select a sample limited to companies founded in Sweden. This would give the possibility to gain access to secondary data that depicts the international process in a reliable and trustworthy manner. Compared to this thesis' study which relies on self-reported export patterns. Furthermore, other tools for measuring market distance could have been used. Hofstede (1984) and Dow & Karanurata (2006) are two examples of validated tools to operationalize psychic distance. However, due to resource constraints, i.e. lack of large enough sample in Sweden and access to Hofstede and Dow's databases, the method depicted is chosen.

5. Empirical Findings & Analysis

This section begins by presenting the empirical findings operationalized as CAGE distances. Subsequently, an analysis of the international scope of Virtual Born Globals contrasted to the theoretical benchmark is presented. Followed by a regression analysis between how many countries the firm has employees in and its international scope. The preceding analysis discusses the capabilities proposed explanatory power for any increases in international scope.

The CAGE model output used in this thesis builds on 30 (n=30) companies that (1) have a virtual organizational structure, (2) at least 25 % of their sales in foreign markets and (3) are acting within the tech-industry (companies are detailed in Appendix 5). Seven surveys have been removed, since these companies did not fulfil definition made by Knight (1996). This results in a loss of 20%.

The processing and interpretation of articles in theoretical benchmark resulted in a sample of 30 (n=30), hence making it comparable to empirical findings. The findings show a wide range of Virtual Born Globals in terms of number of employees, geographic dispersion in workforce and number of export regions (see Table 5.1). Appendix 5 shows complete data of input variables per company.

	Avg employees	Avg. countries with employees in	Avg. export regions
Virtual Born Globals (n=30)	28	6	11

Table 5.1: *Average input variables for Virtual Born Globals in thesis' units of study.*

The analysis will operationalize all input variables to generate the CAGE-output. The proposition of an increase in international scope in Virtual Born Globals would be represented as a larger CAGE-output compared to theoretical benchmark. Results from Study 1 finds the direct link between Virtual Born Globals and international scope. Within the link, Study 2 will analyze what specific capabilities have explanatory power for the international scope. Therefore, this section opens up for a rewarding discussion which would have academical and managerial implications, as we gain increased knowledge regarding which capabilities will impact psychic distance, hence increase international scope.

5.1 Virtual Born Globals' impact on International Scope

5.1.1 International scope of Theoretical Benchmark

By processing revised Born Globals literature that this thesis uses as theoretical benchmark, three studies could be used to extract comparable data on Born Globals's internationalization process. The number of Born Globals, their domestic market and their respective CAGE-output for each article within theoretical benchmark can be seen in Table 5.2 below (expansion pattern can be seen in Appendix 6.2). Lopez et al. (2008) contributed the most to the sample with 21 companies, followed by Chetty & Campbell (2004) and Hashai and Almor, 2004. What the table shows is a wide spread of Born Globals within the theoretical benchmark in terms of international scope, as defined by CAGE-output. The model output indicates that companies in geographically distant but economically advanced country such as New Zealand manages to reach the largest international scope (World Economic Outlook, 2016). The companies from New

Zealand exported to distant markets such as Canada and the United Kingdom. However, one can argue that they are geographically distant markets but not culturally (Hofstede, 1984). The output is therefore also a result of New Zealand's geographically isolated location.

Secondly, Israel is a relatively economically advanced economy but lack geographic or cultural proximity to many larger markets. A smaller international scope could be observed compared to New Zealand founded Born Globals. Lastly, we have Costa Rica founded Born Globals. They generate a low international scope after three years. The data shows that they mostly focus on bordering countries in South America, that are geographically and culturally close. A common element with all three studies is the fact that all domestic markets are relatively small and isolated, compared to for example United States or China. An average CAGE-output of *90621* for all Born Globals within the theoretical could be observed.

Theoretical Benchmark	Nr. companies	CAGE-output	Domestic Market
Chetty & campbell-Hunt (2004)	6	**30138.32**	New Zealand
Almor (2013)	3	**22784.15**	Israel
Lopez et al. (2008)	21	**3983.516**	Costa Rica
Total & Average	**30**	Avg: **18968.662**	

Table 5.2*: Summarized cage-output for theoretical benchmark.*

5.1.2 International Scope of Virtual Born Globals

When applying the same CAGE model on this thesis' data of Born Globals with a virtual organizational structure, an overview of the internationalization can be drawn. The empirical findings suggest that the companies are on average present in 11 regions and export to a wide spread of continents, with Europe and North America being the most common (see Appendix 6.1). Additionally, the top three most common countries where the founder is from, i.e. proxy domestic market, are: USA, Denmark and South Africa. These three countries are geographically distant from each other and therefore indicating on a diverse sample. The model output in Table 5.3 shows the stimuli for psychic distance between each reported country of foundation to the exported regions. A large portion of companies (30% of the companies) sold to 170+ countries within first three years, this is represented by the high CAGE-outputs.

Additionally, a surprising finding within the data is that Virtual Born Globals from the United States managed to reach a very high international scope, contradicting earlier Born Globals literature that emphasize that a large international scope correlates with a small domestic market (Arbaugh et al, 2008). They outperformed many smaller markets such as Sweden and Bulgaria. However, Denmark with three companies and the second highest CAGE output represents small countries' need to address a global market due to small domestic market. An average CAGE-output for all Virtual Born Globals of *90621* could be observed.

Proxy Domestic Market	Nr. Companies	Nr. Export Regions	Avg. CAGE-Output
Italy	1	23	**188231**
Denmark	3	17	**157793**
Malta	1	23	**174154**
United States	11	12	**107261**
Ireland	1	13	**103952**
Australia	1	12	**95102**
Germany	2	7.5	**75019**
England	3	8	**71438**
Poland	1	7	**54301**
South Africa	2	7.5	**37529**
France	1	3	**34050**
Bulgaria	1	4	**22524**
Singapore	1	3	**11750**
Sweden	1	2	**6668**
Total	**30**	Avg: **11**	Avg: **81412**

Table 5.3*: Summarized cage-output for Virtual Born Globals categorized per proxy domestic market*

5.1.3 Fit of Theoretical Benchmark with Virtual Born Globals

The average CAGE-output of 90621 for Virtual Born Globals is significantly higher than the output from the theoretical benchmark, which was 18969. In order to further assess how the expansion pattern of Virtual Born Globals compare to the theoretical framework, the data will be analyzed using quartiles. The quartiles categorize the companies in accordance of small to large international scope based on the CAGE-output presented in Table 5.4 below. They are created using the full spectrum of data, from both non-Virtual Born Globals and Virtual Born Globals. The fourth quartile represents companies with a large international scope and the first quartile companies with a small scope. Using quartiles for the analysis is highly useful for the purpose of this section - to create a relative comparison between the two types of Born Globals. Findings are presented in Table 5.4 below (detailed in Appendix 7):
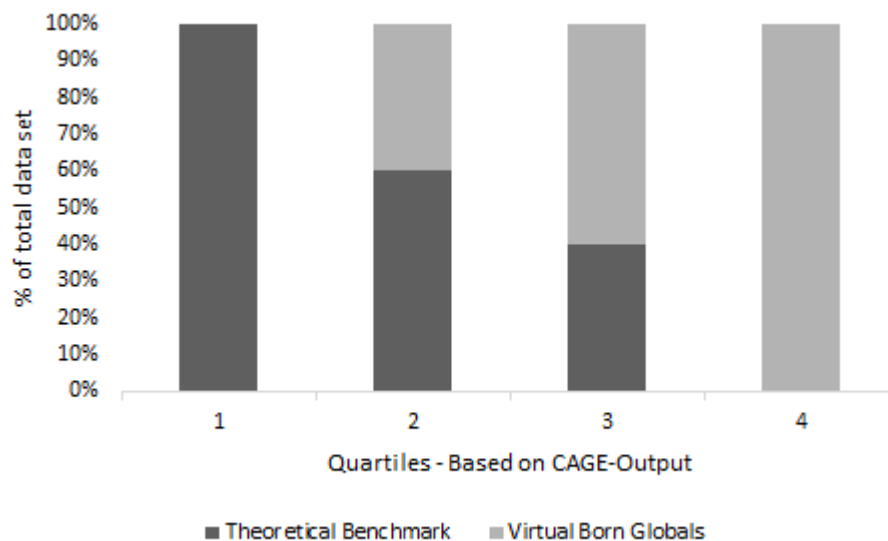
Table 5.4*: percent of companies within each quartile of CAGE-output*

The findings indicate that majority of Virtual Born Globals are shifted towards the fourth quartile, a large international scope. This implies that, using CAGE model output as determinant for international scope, Virtual Born Globals differ significantly compared to theoretical benchmark. As seen in Table 5.4, Virtual Born Globals represent all companies in the fourth quartile and in total, 70 % of all Virtual Born Globals are in the third and fourth quartile. This implies that Virtual Born Globals manages to reach export countries with significantly higher stimuli for psychic distance, i.e. larger international scope. Appendix 6.1 and 6.2 enhances this conclusion, by showing a path dependency for the theoretical benchmark co. The regions they export to during the first three years have lower stimuli for psychic distance compared to the regions Virtual Born Globals export to during first three years.

5.1.4 Regression analysis - Virtual Born Globals

To investigate the presence of potential confounders to the dependent variable international scope, regression analyses were conducted. The purpose of the first analysis is to gain a deeper understanding for how and if virtual organizational structures result in a larger scope. Pimenta & Joswig (2017) suggest that it is the global mindset in a virtual team that gives them the edge when working over borders. However, the competitive edge can also be observed as a result from the actual geographic dispersion in workforce, e.g. possessing multiple cultures. This implies that the degree of geographic dispersion could be correlated to better understanding and working over borders.

Building on these notions, an understanding for differences within the thesis' sample of Virtual Born Globals will help shed light on if higher geographic dispersion results in higher international scope. This correlation will therefore support and strengthen both the conclusion based on the CAGE-output, that Virtual Born Globals have a large international scope, and the CAGE-model as a tool to operationalize international scope.

Furthermore, the theoretical benchmark represents Born Globals with employees in one country and Virtual Born Globals represents companies with employees in two and more countries. Section 5.1.3 therefore indicates that the international scope increases when moving from a Born Globals with

employees in one country, i.e. theoretical benchmark, to a Born Globals with employees in two or more countries, i.e. Virtual Born Globals. Building on the same notion, a similar pattern would appear within the data set on Virtual Born Globals if the first notion is true. For example, a Virtual Born Globals with employees in 14 countries should posses a larger international scope compared to a Virtual Born Global with employees in only three countries. This analysis will therefore strengthen the conclusions found in 5.1.3, i.e. virtual organizational structures results in larger international scope. The results are presented in Graph 5.1 below.
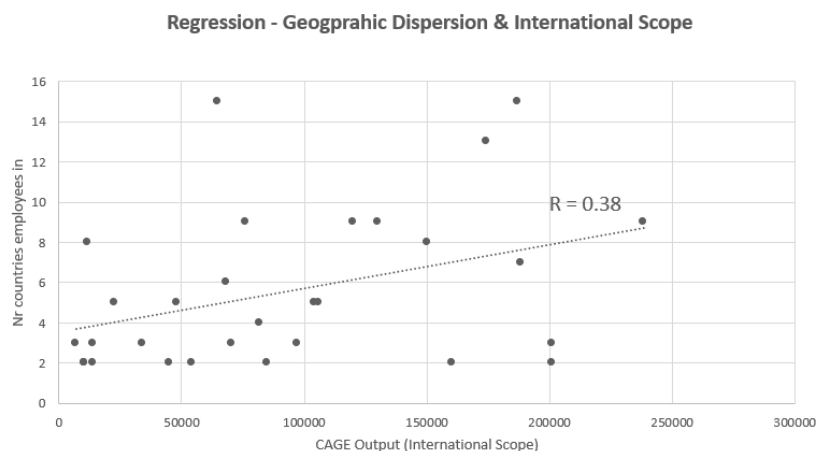
Graph 5.1: *Correlation between geographic dispersion in workforce and cage-model output*

The analysis reveals a weak to medium correlation, of R = 0.38. This represent the total sample of Virtual Born Globals used in this thesis. As discussed before and by earlier literature, larger domestic markets have less pressure to internationalize. According to our data this applies to where people source their workforce in Virtual Born Globals. The American Virtual Born Globals have high dispersion but still limited geographic spread outside of the US. Many US companies had therefore their workforce spread out only in the US. This is reflected in the regression analysis, where many US companies have large international scope but small geographic spread across the border amongst the workforce.

To better understand the impact of the geographic spread of employees and to create a more comparable dataset to theoretical benchmark, a new regressions analysis is performed on non-american firms, resulting in a sample of 19 non-American Virtual Born Globals shown in Graph 5.2 below.
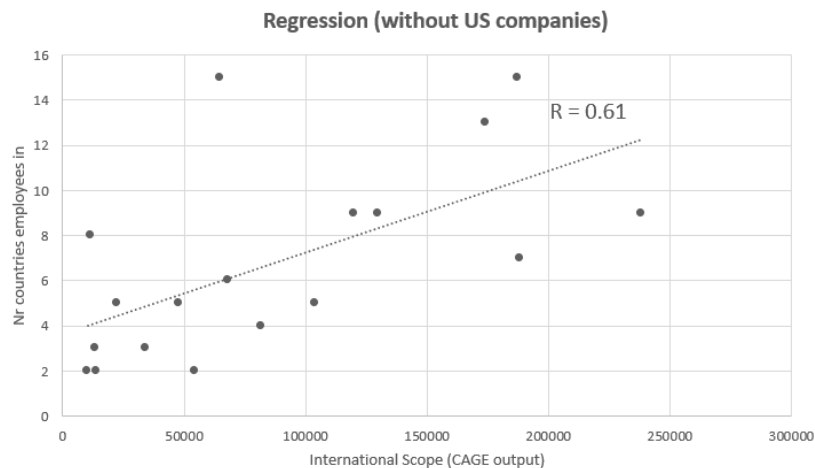
Graph 5.2: *Correlation between geographic dispersion in workforce and cage-model among non-american Virtual Born Globals[3]*

Now the analysis reveals a result that is highly consistent with the previous result in 5.1.3, i.e. virtual organizational structures is a large influencer on international scope. This is shown by the strong correlation of R = 0.61 between geographic dispersion in workforce and international scope (Statstutor, 2013).

Control Variable: number of employees

To investigate the potential influence of size of firm, the control variable of number of employees after three years is used. This is to control for a possible correlation between size and international scope, i.e. the larger you are after three years the larger the scope is. Large size could therefore decrease the explanatory power of being a virtual organization and attribute it instead to for example a successful product. However, a very weak correlation was found. Hence it can be concluded that no effect from company size were found on the geographic spread on employees, as shown in graph 5.3 below.
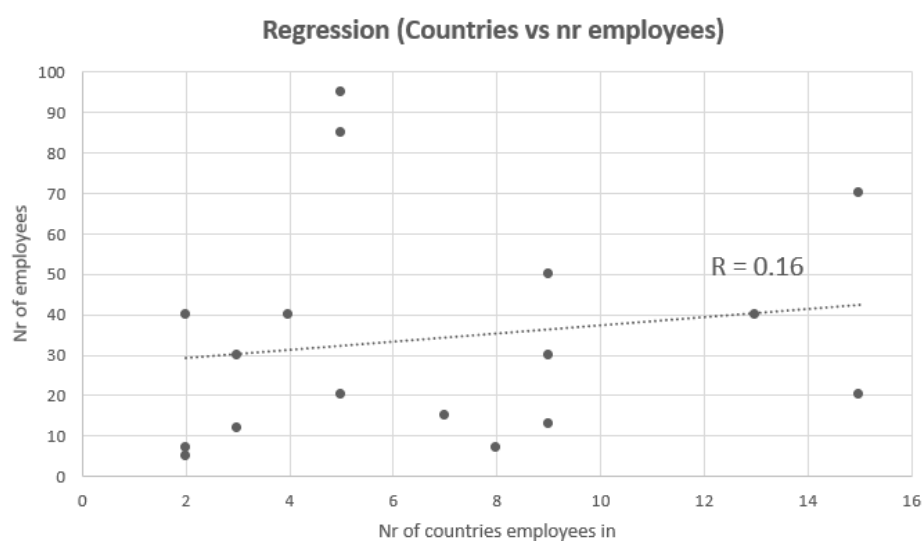
Graph 5.3: *Correlation between geographic dispersion in workforce and number of employees*

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[3] Correlation-analysis and outliers of 3% removed.

5.1.5 Sub-conclusion

The empirical findings and analysis of the international scope show a strong support for the proposition that being a Virtual Born Globals increases the international scope. Additionally, the notion of how extensive the geographic dispersion is within your workforce support the fact that moving from employees in one country (non-Virtual Born Globals) to two or more countries influence the international scope. Hence, a Virtual Born Globals should not be seen as binary. The degree of geographic dispersion in the Virtual Born Globals enhances the international scope. This suggest that there are elements within a virtual organization structure that increases the international scope. This will be discussed below in section 5.2.

5.2 Capabilities for Internationalization

The following section builds upon the observed discrepancies in international scope between the empirical findings representing Virtual Born Globals and the theoretical benchmark, as suggested in section 5.1. This section continues the analysis by examining the explanatory power and impact of virtual teams' capabilities. The capabilities in focus were proposed in section 3.2 to enhance the international scope of Virtual Born Globals. Firstly, we use our eight interviews from Study 2 to reveal whether the Virtual Born Globals possess the four dynamic capabilities proposed in section 3.2. If the dynamic capabilities are found in the Virtual Born Globals they are further tested. Using the quantitative data from Study 1 about the executive's perceived challenges with internationalization, the impact each capability has on psychic distance is tested. This allows to understand which capabilities lead to the observed increased international scope in Virtual Born Globals.

5.2.1 Capability to handle different cultures and its impact on international scope

Cultural differences is often claimed as being the stimuli affecting psychic distance the most (Ghemawat & Siegel, 2011). Cross-cultural barriers in terms of beliefs and stereotypes as well as social rules, values and language barriers between the domestic market and the entering market is emphasized as important challenges, preventing flow of information from and to the market. (Greblikaite et al, 2010) These challenges have been shown to decrease the international scope since companies favor markets perceived as culturally closer (Chetty & Campbell-Hunt, 2004). The cultural capability in Virtual Born Globals will therefore be tested as a dynamic capability with impact on the international scope.

Data on presence of capability of handling different cultures
Seven out of eight Virtual Born Globals mentioned that the diversity within the teams make them better at coping with the international business environment. For instance, Melewi, discussed this:

> *"We are more receptive to other cultures since we have a lot of different cultures already within the team"*- Melewi

However, the Virtual Born Globals also recognized that the diversity in teams often is associated with conflicts and challenges. A clear pattern was noted; they work actively with revealing their own biases and stereotypes, in order to facilitate their internal work. For example, this was expressed by Balsamiq:

> *"Diversity is a key thing. It helps us to grow both personally and as a company. Since we work with understanding different cultures within the team, it makes us more respectful and aware of our own biases"* -Balsamiq

The firms had developed ways of working around the challenges diversity is associated with. By making the team understand each other challenges were mitigated. Some clear patterns of how to work around it was identified. For instance: structured team building activities over the internet, creating a strong company culture and an internal emphasis on diversity and multi-nationality within the teams. The quote of one company supports the identified patterns:

"We talk about the importance of diversity in the team as often as we can" - Anonymous

Moreover, the virtual organizational structure in Born Globals implies possibilities to hire people with different language skills. Five out of eight companies mentioned that they, as a result of hiring people all over the world, have been forced to learn how to handle language barriers internally. Balsamiq discussed this:

"One thing we do that is nice is that we try to always answer in the language that the customers ask us in. English, German, Spanish - we are able to reply in several languages" - Balsamiq

Furthermore, four of eight companies emphasized that both the dispersed structure and the heavily reliance on internet help them find new opportunities. The data also shows that the different nationalities and cultures within the team is important for finding new opportunities and understanding the customers in foreign markets. The quotes from both Railsware and Melewi support this:

"Many ideas appear from the bottom. By having employees in many countries and communicating through technology, we get information about which markets are most popular quickly" - Railsware

"Over time, since we have interactions between different nationalities within the team, I get to know more about their outside market. For example, I have a colleague located in Denmark, that makes me understand Denmark better and because of that our clients in Denmark." - Melewi

However, internal transferring of knowledge was discussed by three out of eight companies as being challenging. These companies recognized some challenges with being virtual and discussed requirements and strategies in order to overcome these. For example, one of the companies had developed their own tool that makes it possible to reflect the spontaneous socializing in the firm. Another company explained how they had bought the same furniture to all employees in their organization in order to build a strong company culture between all the employees. Worth noting is that two of the companies mentioned that regardless of strategies and systems for coping with cultural challenges associated with virtuality, it is also vital to find the right kind of employees. For instance, Melewi said:

"They have to be trained to work remotely which is impossible for some." - Melewi

Cultural capabilities impact on international scope
As seen above, the qualitative data shows that Virtual Born Globals possess dynamic capabilities to cope with different cultures. Additionally, the qualitative data also indicates that the cultural capability has explanatory power for decreasing the psychic distance. One example is the expressed understanding of different cultures, this would increase the understanding of foreign clients (Ghemawat & Siegel, 2011).

However, to further support this capability's effect on psychic distance, the quantitative data for all companies is utilized.

The respondents in Study 1 were asked to state how challenging they find cultural differences between their domestic market and the entering market in their internationalization process (See Appendix 8 for detailed results.) As shown in chart 5.1 below, approximately 60 % of the companies that were surveyed find differences between countries as a relatively low challenge. Furthermore, more than 17 % find culture differences very easy whereas approximately 7 % find it very challenging. Since cultural differences usually is seen as the most significant stimuli for psychic distance (Greblikaite et al, 2010) the combined data suggests that psychic distance in terms of cultural differences is decreased in Virtual Born Globals due to their cultural capability.

Chart 5.1: *Cultural capability's impact on psychic distance - self reported likert scale on perceived challenges from cultural differences*

Analysis of cultural capability and its impact on international scope

Similar to virtual teams in MNCs, our data shows that Virtual Born Globals are good at mitigating the effect of having diverse teams by actively working with understanding and accepting differences (Sarker & Sahay, 2002; Robey et al., 2009). Hence, Goodman's (2012) reasoning about virtual teams in MNCs can be applied on virtual teams within Born Globals as well. This is because the diversity that was found to characterize these teams implies that they internally develop their understanding of different cultures, values and social norms. Nonaka et al (2000) found that virtual teams in MNCs found ways to overcome the challenges associated with building internal trust due to reduced socializing. In the same way, Virtual Born Globals also recognize these challenges and are trying to mitigate them. For instance this is done by hiring the right kind of employees and facilitating socialization over internet.

Muzychenko (2008) stresses that cross-culture competence in virtual teams in MNCs moderates opportunity recognition in foreign markets. In line with this reasoning, it seems like the culture capability in Virtual Born Globals enables them to react on opportunities without being path-dependent, i.e. biased from their home market.

As a result of the cultural capability, Virtual Born Globals do not consider different cultures as an obstacle for internationalization in comparison to non-virtual Born Globals and traditional firms (Johanson &

Vahlne, 1997; Hashai and Almor, 2004; Chetty & campbell, 2004; Kuivalainen et al, 2007). It can thereby be concluded that the internal capability of coping with different cultures within the team can be translated into the external environment. This decreases the challenges that differences between markets with regards to culture usually implies.

5.2.2 Capability to handle different time zones and its impact on international scope

In the tech-industry the stimuli for psychic distance, geographic distance, is mostly represented in the form of time zones (Dafoulas and Macaulay, 2002; Shin, 2005). Hence, time zone capabilities in Virtual Born Globals will be tested as a dynamic capability with impact on the international scope.

Data on presence of capabilities to handle time-zones differences

Six out of eight companies emphasized the challenges with working internally in different time zone. However, due to high awareness of this challenge, all companies had developed strategies to overcome the issues. Five out of eight companies mentioned that they worked with having meetings in overlapping times. Two out of eight companies mentioned that they try to decrease the number of meetings as much as possible. Instead they focused on being transparent with one's individual work, relying on tool such as *slack (communication)* and *google docs* (document software). The quote of Bluespark shows how their awareness results in efforts to mitigate the challenges:

> *"Time zones are challenging and difficult to work around. We have to be conseiotigous with meetings, we constantly organize our days with time zones in consideration"* - Bluespark

However, two out of eight companies also mentioned that having employees in different time zones is an advantage since it is possible to attend to customers around the clock. Hence, they hire people with the strategic intention to cope with different time zones. This is supported by the quotes of Balsamiq and Idea Hunt:

> *"Having people in different time zones help us because we are able to attend to people in different time zones. For instance, we have an employee in San Francisco because we have customers there"* - Balsamiq

> *"Our representative in the US takes all meeting their because it is the right time zone"* - Idea Hunt

Time-zone capabilities impact on international scope

The qualitative data shows that Virtual Born Globals develop capabilities to cope with different time-zones. Additionally, the qualitative data also indicate a degree of explanatory power for decreasing the psychic distance. One example was the company's tools and procedures for working with time zones that have spillover-effect on working with customers across time zones. However, to further support this capability's effect on psychic distance the quantitative data of all companies is utilized.

The respondents in Study 1 were asked to state how challenging they find different time-zones between markets in their internationalization process. As shown in Chart 5.2, a slight majority, 55%, of the firms do not consider different time-zones as challenging. In Born Globals literature on tech companies, geographic distance in the form of time zones has been described as a strong stimuli for psychic distance (Ghemawat, 2001). This indicates that Virtual Born Globals perceive the challenge as relatively neutral whereas non-Virtual Born Globals perceive it as challenging. Hence, combined data suggests that psychic distance in terms of time zones is decreased in Virtual Born Globals due to their time zone capability.
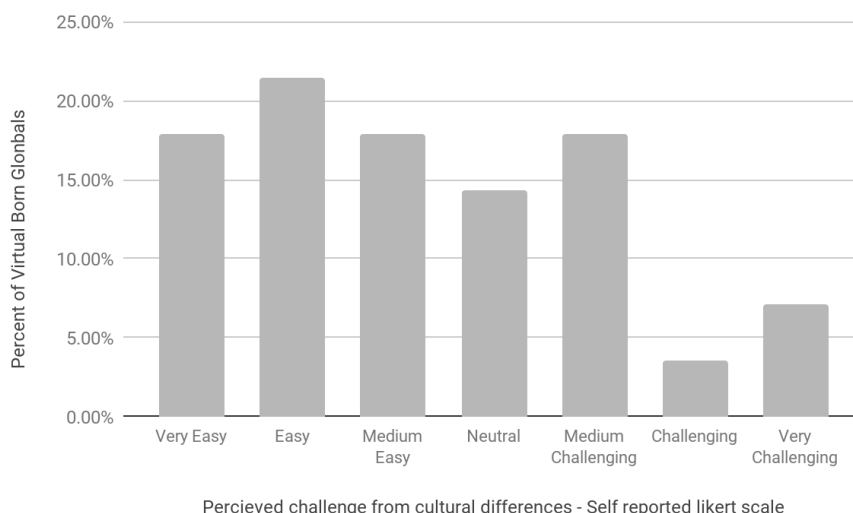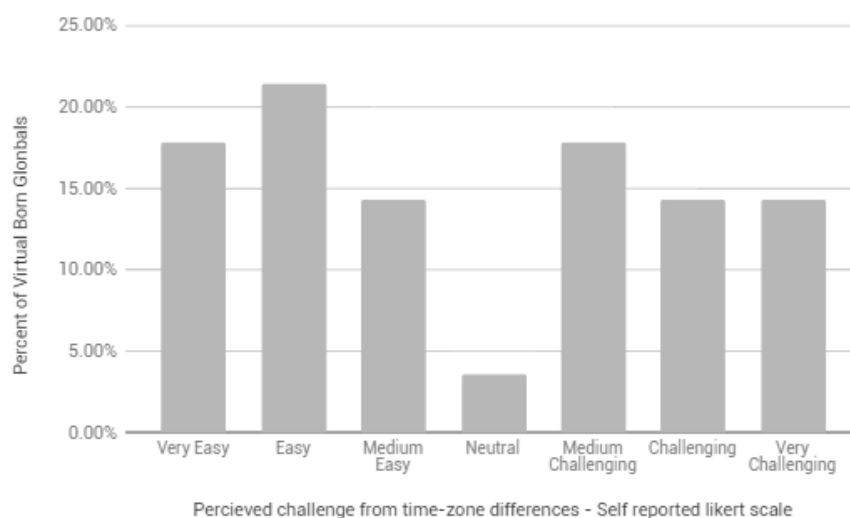
Chart 5.2: *Time zone capability's impact on psychic distance - self reported likert scale on perceived challenges from time-zone differences (1, being not a challenge and 7, very challenging)*

Analysis of time-zone capability and its impact on international scope

The empirical data indicates that the same logic as Ebrahim et al (2009) found in virtual teams in MNCs can be applied to Virtual Born Globals, i.e. these companies are able to overcome barriers related to time zones since they can translate their internal capability to navigate in many time zones into the external environment. By comparing Virtual Born Globals structure to the theoretical benchmark, one can observe major differences (Chetty & Campbell-hunt, 2004). One examples is Virtual Born Globals already geographically dispersed workforce that makes it easier with worldwide support compared to companies in theoretical benchmark. In summary, the unique capability to handle different time-zones is unique to Virtual Born Globals and can be concluded to help with expanding their international scope.

5.2.3 Capabilities of handling administrative differences and its impact on international scope

Administrative distance between countries is assumed to be a challenge in the internationalization process. The capability to cope with administrative distances will therefore be tested as an dynamic capability with impact on the international scope.

Data on presence of capability of handling Administrative Distance

One out of eight companies mentioned its capability of dealing with administrative distance which was Smartlaunch, who discussed that by having employees located in different countries their learning is enhanced about different laws and rules with regards to different markets:

> *"We have to follow laws in the country that the employee is located in which facilitates our learning"*
> - Smartlaunch

However, SmartLaunch also mentioned that the heritage of the company in terms of nationality is affecting the company's way of viewing working laws:

> *"Our company has a lot of danish heritage due to our founders being from Scandinavia,. This is mainly shown in how we consider working rules even though we of course have to adapt to other countries as well".* - SmartLaunch

Analysis of presence of capability of handling Administrative Distance

The capability of dealing with administrative distance in Virtual Born Globals is not supported by our data. As seen above, only one of eight companies mentioned skills that can be analyzed as related to administrative distance capability. It might be that administrative differences are something that these companies are not dealing with internally to a great extent. As a consequence of that, they are less likely to develop this capability even though their organization structure results in a high proximity to several of markets (Batarseh et al, 2007). Administrative distance reflects societal and is associated with differences with regards to laws and rules formed by the institutional frameworks (Tracey & Phillips, 2011). One explanation for not developing this capability in Virtual Born Globals could be that they are not forced to deal with this challenge internally since the firms develop own institutions. The firm institutions are likely depending a lot on the founder's nationality. This reasoning is supported partly by our empirical data but mainly by the Born Globals literature who argues that even Born Globals risk being path dependent with regards to the founder's experiences, networks and capabilities (McDougall et al, 1994; Madsen & Servais, 1997; Nordman & Melén, 2008; Wictor, 2012). Since the capability of dealing with administrative distances is not found we do not test its effect on the psychic distance further.

5.2.4 Capabilities of handling economic differences and its impact on international scope

The understanding of different economic situations in different countries is important for the internationalization process (Ghemawat & Siegel, 2011). For example, this concerns knowledge about customer preferences due to their economic situation. Hence, this capability will be tested as a dynamic capability with impact on the international scope.

Data on presence of capabilities of handling Economic Distance

One out of eight companies, mentioned that their organization structure affects how they are able to understand how customers in different countries perceive their product:

> *"Having international staff helps us think more broad on who the audience is"* - Bluespark

However, Balsamiq explicitly stated that no customization of the products with regards to different economic situations is done at all:

> *"Either you like the product or you don't"* - Balsamiq

Analysis of presence of capabilities handling Economic Distance

Hence, there is no evidence in our data supporting the presence of the capability of coping with economic differences. One explanation for this could be that the industry these firms operate in, i.e. tech-industry, is characterized by standardized products and short product life cycles. Hence, the time for customization and adaption to different markets might be limited. Since the qualitative data does not indicate that Virtual Born Globals develop capabilities to cope with different economies between countries, its effect on psychic distance is not tested further.

6. Discussion

This section starts by conceptualizing our key findings into an updated theoretical framework. In the next step our key findings are presented together with a discussion on Virtual Born Globals. Lastly, the explanatory power of dynamic capabilities for international scope is discussed.

6.1 Key Findings - Virtual Born Globals Internationalization Process

Findings are synthesized into an updated version (see Figure 6.1) of the integrated framework first shown in section 3.2. The updated view facilitates a better understanding of the key findings of this thesis. The first key finding is the increased international scope as a result from having a virtual organizational structure in a Born Globals. This is seen in Figure 6.1 as the direct link between Virtual Born Globals and increased international scope. The second key finding is the observed explanatory power for the dynamic capabilities to cope with cultural and time-zone differences in the internationalization process. This can be seen as the link between the two capabilities and decreased psychic distance, which in turn increases international scope due to less effect from stimuli for psychic distance. No explanatory power could be linked to other two capabilities.
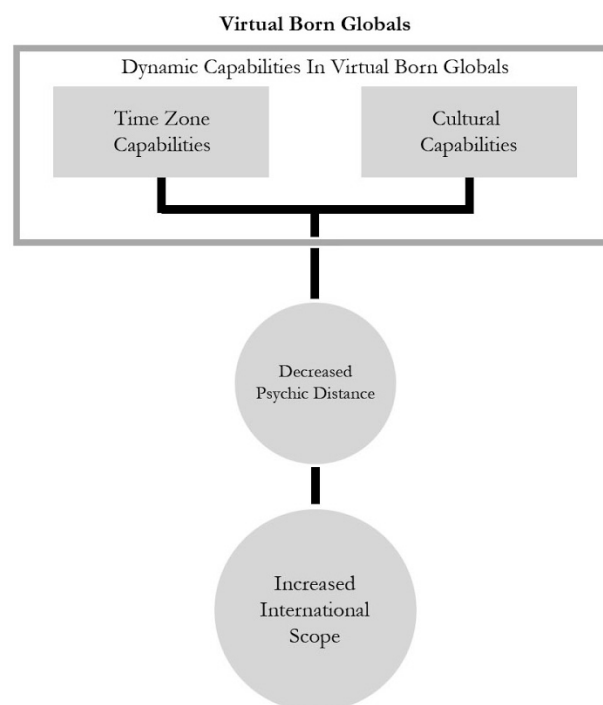

Figure 6.1: Identified Correlation and Dynamic Capabilities

6.1.1 Virtual Born Globals View compared to Theoretical Benchmark

As seen in Table 6.1 below, Virtual Born Globals, in contrast to non-Virtual Born Globals are not path-dependent in their internationalization process. The explanation for this is that Born Globals literature has shown that Born Globals are influenced by stimulus affecting psychic distance (Chetty & Campbell-Hunt, 2004;) which Virtual Born Globals are not. This is further explained by the fact that the domestic market for Virtual Born Globals is of less importance. A Virtual Born Global, from the beginning, consists of people from different markets/nationalities whereas Born Globals have been shown to use the domestic market as a way of proving their ideas and increasing their credibility before going abroad (Chetty & Campbell-Hunt, 2004).

Another area of interest is the insight into what capabilities drive internationalization for each type of Born Global. As described by Madsen & Servais (1997), it is the entrepreneur behind Born Globals that determine the internationalization path in terms of his or her capabilities. Virtual Born Globals are instead utilizing capabilities built up in the firm in order to internationalize rapidly. Virtual Born Globals are forced to develop capabilities internally to overcome challenges concerning differences in culture and time zones in their work force. Since the same challenges are occurring while internationalizing, the capabilities that are built up internally can be translated into the international setting. Hence, the same logic as Pinjani & Palvia (2013) described about virtual teams in MNCs can be applied on Virtual Born Globals, i.e. a "pull" capability building is being used in the internationalization process. The capability building can be seen as "push" in non-Virtual Born Globals, since the only time the build relevant capabilities is when they internationalize.

By working internally with different cultures, Virtual Born Globals adopt an even more global approach from inception compared to non-Virtual Born Globals. Virtual Born Globals recognize the importance of developing dynamic capabilities internally to accelerate the internationalization process. By being less influenced by stimulus affecting psychic distance than Born Globals, Virtual Born Globals are able to derive a significant competitive advantage, by entering different and several markets simultaneously. Hence, Virtual Born Globals reach a larger international scope within the three first years compared to Born Globals. With that said, Born Globals could consider virtual teams as a strategy for increasing their international scope since it decreases the effect of stimulus influencing psychic distance.

	Theoretical benchmark	**Virtual Born Globals**
Psychic Distance	Entry in order of higher market distance - path dependency similar to traditional view	Simultaneous entry to multiple different markets - low degree of path dependency.
Time & Scope	Faster than traditional view but gradual internationalization.	Fast internationalization process and achieves larger scope compared to non-virtual Born Globals.

Table 6.1: *Differences between non-virtual- and Virtual Born Globals is psychic distance and international scope*

6.2 Alternative Explanations for Increased International Scope

This section builds on the empirical findings and analysis, by discussing and taking a step back regarding the observed discrepancy in international scope between Virtual Born Globals and theoretical framework. With results as starting-point, the usefulness of the CAGE model and the dynamic capability approach in this context is discussed. This is essential in order to generate valuable implications.

6.2.1 Alternative A: Empirical Error in Theoretical Benchmark

The regression analysis showed that an exclusion of Virtual Born Globals that had United States as domestic market, resulted in a higher correlation between dispersion of workforce and international scope. Additionally, the Born Globals in the theoretical framework that were derived from the article of Lopez et al. (2008) had Costa Rica as their domestic market. These showed to be the Born Globals with the smallest international scope in the theoretical framework.. Compared to Israel and New Zealand, which represented the domestic markets of the other firms in the theoretical framework, Costa Rica is smaller and less developed (World Economic Outlook, 2016). These two findings indicate that the domestic market could have explanatory power for international scope. This is further supported by Kuivalainen et al (2007), who argued that the definition of Born Globals should take into account domestic market size. Hence, differences between theoretical benchmark and Virtual Born Globals in international scope, could be partly explained by them having different domestic markets.

6.2.2 Alternative B: Model Errors and Model Invalidity

Even though the regression analysis support the usefulness of the CAGE-model, its usefulness to study stimuli for psychic distance could still be questioned in a virtual context, since it has not been used there before. It could be other new stimulus for psychic distance or impact multipliers that better depicts what Virtual Born Globals perceive as challenging than the CAGE-model captures. This is argued by Hagstrom (2007), who states that internet penetration as a stimuli per host market better explains pattern for internet companies, than traditional stimulus. Since Virtual Born Globals often communicate with clients through digital tools, this argument could be true in this case as well. This could be a reason for why Virtual Born Globals achieve a higher CAGE-output, they are not affected as much by the traditional stimulus. Using internet penetration as a stimuli might have showed that Virtual Born Globals limits their internationalization to certain market that other non-Virtual Born Globals would have chosen instead. However, this comes down to psychic distance which is the perceived challenge. It is therefore difficult to have stimulus that represent both types of Born Globals perceived psychic distance in the same way. This could explain the discrepancies in CAGE-output.

6.3 Source of Error in the use of Dynamic Capability Approach

The following section builds on a scenario where the errors discussed in A-C do not significantly impact our results. Hence, the deviations between the empirical data and the theoretical benchmark in terms of international scope can be considered valid. Therefore, it is important to address the usefulness of the dynamic capability approach and the explanatory power of the argued dynamic capabilities.

6.3.1 Alternative I: Theoretical Errors in Dynamic Capability Approach

As the analysis suggests, only two of the four proposed capabilities were found to be present and impact the international scope. The four propositions were identified using dynamic capability approach on

virtual teams in MNCs. Since only 50% of proposed capabilities were supported by empirical data, investigative criticism should be directed towards the dynamic capabilities approach.

This is to understand whether the empirical findings simply did not support the proposition, or if the elusive field of dynamic capability approach could have mislead this thesis to focus on non-relevant capabilities (Pavlou & Sawy, 2011). For instance, Pavlou & Sawy (2011) argue that there are multiple inconsistencies in how to define different type of capabilities and the differences between operational and dynamic capabilities are not always clear. The thesis limited itself to test for capabilities that have been found in virtual teams in MNCs to see whether these could be found in virtual teams in Born Globals and if so, have an impact on the international scope. This demarcation could have resulted in us failing to recognize other dynamic capabilities possessed by Virtual Born Globals not found in virtual teams in MNCs. These potential capabilities could have explanatory power for the larger international scope of Virtual Born Globals.

6.3.2 Alternative II: Incorrect Interpretations of the Explanatory Power of the Capabilities

Results also indicate on other aspects of Virtual Born Globals that could have explanatory power for increased scope. For example, as observed in the results and theory on MNCs, virtual teams can hire from a large pool of professionals (Cascio, 2000; Furst et al, 2004; Fuller et al, 2006). Additionally, virtual structures also require independent people to function. This results in that Virtual Born Globals are staffed with high performing independent people. Ebrahim et al. (2009) have also observed this competitive edge with virtual teams in MNC. Hence, higher efficiencies in workforce could decrease the explanatory power for the two identified dynamic capabilities.

6.4 Explanatory Power of Virtual Born Globals' Capabilities

Finally, it might be that neither the deviations in international scope found in Study 1, or the explanatory power of the dynamic capabilities found in Study 2, have been impacted by confounders. In this case, both deviations in international scope and the explanatory power of the dynamic capabilities can be considered valid. Hence, our proposition that Virtual Born Globals reach a higher international scope than traditional Born Globals can be considered valid. In that case, it can also be concluded that unique dynamic capabilities, i.e. (1) cultural capability and (2) capability to handle different time zones, have explanatory power. Furthermore, the qualitative data gathering showed that Virtual Born Globals develop capabilities relevant to internationalization.

Worth nothing it that the alternatives, A-B & I-II, do not have to be considered as binary. This results in the fact that some alternatives might only reduce the explanatory power of the capabilities, but not completely reject them.

7. Conclusion

The following section will discuss the conclusion and the set of probable implications from the performed study. The sections continues by discussing generalizations and critique of study. Lastly, further research is suggested.

7.1 General Conclusions

This thesis main aim was to answering the following research questions:

> **(1) To what extent do virtual organizational structures in BG affect the international scope?**
> **(2) How do capabilities, unique to Virtual Born Globals, impact the international scope?**

By examining these questions, the purpose of the study was to research and reduce identified research gap, i.e. absence of knowledge regarding dynamic capabilities in Virtual Born Globals and their impact on international scope.

This thesis builds on the argumentation by business advisors and academic scholars, that quick and extensive internationalization is a key competitive advantage in today's fast-paced economy. By reviewing literature, it can be established that very little is discussed regarding the strategic options to increase international scope for Born Globals. Furthermore, many studies indicate that that Born Globals have a smaller international scope after three years than earlier concluded.

The scope of internationalization has been pointed out as a research area that is overlooked and emphasis should then be placed on the need to look at the parameters for increased international scope. Earlier research has examined virtual teams in MNCs and found that they possess dynamic capabilities with implications for their internationalization. Building on the desire to understand virtual organizational structure's implications for Born Globals, an integrated framework built on Born Globals literature and the dynamic capability approach is introduced to fill this research gap. The framework is the first step in understanding the unique capabilities of virtual teams' impact on psychic distance, hence international scope.

Study 1, which addresses RSQ1, revealed that by using the CAGE-model an increase in international scope for Virtual Born Globals could be identified. Moreover, a regression analysis for understanding the degree of dispersion of workforce supported the same notion, that geographic dispersion helps with increasing international scope.

In Study 2, which addresses RSQ2, four dynamic capabilities unique for virtual teams in MNC were tested in the context as independent variables for psychic distance. The analysis concluded that Virtual Born Globals possess two capabilities, cultural capability and time-zone capability. By combining the qualitative and quantitative data one could conclude that these dynamic capabilities have an explanatory power for decreased psychic distance, hence the increased international scope observed in Study 1. This is because these capabilities decreases the challenges associated with cultural-and time-zone differences.

In conclusion, Study 1 and Study 2 together show that Virtual Born Globals reach a wider international scope within the three first years and that they have unique dynamic capabilities with high explanatory power for it. The challenges the teams encounter internally, due to differences regarding culture and time-zones within the teams, implies an inherent capability building in order to overcome these challenges. This resulted in presence of cultural- and time-zone capabilities. These capabilities can then be translated into the external environment to cope with differences in the internationalization process. Thus, the dynamic capabilities mitigates some of the most important challenges during a firm's internationalization process. This is represented by the high explanatory power for decreased psychic distance and therefore higher international scope compared to non-virtual Born Globals

However, one has to shed light on the potential sources of errors discussed in section 6.3 which might decrease the validity of the findings in this study. The core critique of the study, that could mitigate the generalizability, are presented as alternatives A & B and I & II. Following alternatives are derived from incorrect operationalisation of both CAGE model, theoretical benchmark and dynamic capability approach. The alternatives are not binary and can therefore be seen as factors that could mitigate the validity in conclusions regarding increased scope in Virtual Born Globals. However, in case of no or little effect from A & B, sources of errors attributed to, (I) Theoretical errors in Dynamic Capability Approach and (II) incorrect interpretations of dynamic capabilities, affect the capability analysis. Both options reduces the ability to draw conclusions regarding the explanatory factors for observed increased scope. Regardless, our thesis presents a framework that can be tested in future research.

7.2 Implications

The intended purpose of the thesis was to provide a more extensive understanding to the proposition that virtual organizational structures and its unique dynamic capabilities would increase the international scope. However, the implication of used theoretical framework on Virtual Born Globals depends on how results are interpreted. Source of errors, alternatives A-B & I-II, are therefore taken into account, hence the actual implications of this thesis incorporates both theoretical and managerial aspects.

7.2.1 Managerial and Theoretical Implications of Accurate Dynamic Capabilities

Theoretical Implications

The identified dynamic capabilities with explanatory power for the observed international scope help close the research gap. Firstly, this thesis contributes to the limited research on Born Globals' strategic options for increasing scope. The implication is to identify virtual structures as a viable strategy for increasing scope within the Born Globals literature. Secondly, the chosen method for operationalizing the psychic distance on a country level proved to be accurate and highly useful. This suggests that CAGE-model is a viable framework to be used further in the Born Globals literature. Thirdly, another implication is that the research field on dynamic capability approach is further evolved. This thesis shows that the approach, yet elusive and ambiguous, accurately map unique capabilities that create a certain outcome in Virtual Born Globals. Hence, the approach should be further used in both a Born Global and internationalization context. Lastly, this thesis further supports the importance of including the size and economic status of domestic market when assessing international scope. This adds to the earlier discussions of Born Globals researchers that a new definition of Born Globals is needed to make it more accurate (Andersson & Wictor, 2004; Kuivalainen et al, 2007).

Furthermore, the results can to a certain extent be generalized to include companies that perform international trade on a regular basis. Researchers have previously found virtual teams to have positive implications in MNCs, but this study points out specific capabilities and outcomes from using virtual structures. These findings therefore further evolve SME and MNC research on conducting international trade.

Managerial Implications

The managerial implications of this thesis is a greater understanding for policy makers for this new type of Born Globals as well as enhanced understanding of which capabilities that are needed to accelerate non-virtual Born Globals. Major investments are done in Born Globals since there is an interest both on a national level and on an EU basis to help these firms to benefit the economy. Today, there are several accelerators programs for Born Globals on a national level due to their single domestic market. However, since virtual organizational structures are geographically dispersed, policy makers should consider unite within economical unions so that all branches of Virtual Born Globals can be assisted. This opportunity must not be neglected and policy makers should find appropriate means of supporting their continued growth.

Similar to the theoretical implication, that virtual structures increase international scope, founders of start ups and managers should consider virtual structures as a viable strategy. If the objective is short time to global market, a full virtual structure or elements of a virtual structure should be used. Similarly, if virtual structures are not possible, an additional implication of the results is that cultural diversity is helpful for increasing scope. These results can therefore be extrapolated to also support research on the benefit of hiring a culturally diverse team.

Furthermore, since this thesis highlights the many opportunities virtual structures implies - human resources and managers should no longer be confined to the limits of the local labour market. The implication is that one should consider recruiting virtually to (1) develop new capabilities, (2) recruit the best talent regardless of location and (3) find cost saving within the workforce.

7.2.2 Managerial and Theoretical Implications - Presence of A-B & I-II

If observed increased scope is attributed to faulty representation of non-virtual Born Globals (A), the study would have no findings that support a correlation between virtual organizational structure in Born Globals and increased international scope. Hence, a theoretical implication would be that current mapping of Born Globals in theoretical benchmark is scattered and insufficient.

The presence of (B) model and sample error, would suggest that there are errors inherent to this study. The theoretical implication would therefore be that the CAGE-model is not relevant for Born Globals and/or tech companies. As suggested in earlier research, there can be other stimulus that better explain what effects the psychic distance.

In case of only scenario I and/or II (i.e. errors in dynamic capability approach and/or incorrect interpretation of capabilities), the generalizability from conclusions from Study 2 is decreased. The theoretical implications is that the Dynamic Capability approach should be evaluated if it is appropriate tool to map capabilities for a certain desired outcome. As discussed in earlier research, the field has been proven to be somewhat ambiguous.

7.3 Suggested Further Research

Future research should first focus on the reliability of the thesis to better understand and mitigate possible alternative explanation and sources of errors. This would strengthen the implications drawn in section 7.2.1. For example, other tools, stimulus and impact multipliers for operationalizing psychic distance on a country level should be tested to further strengthen the results by decreasing the dependence on the CAGE-model. Example of other tools are Dow & Karunaratna's (2006) and Hofstede's (1984) parameters.

Additionally, there is a need to examine the intensity of the different capabilities as well as strengthen the internal validity in the study in terms of causality between the capabilities and the international scope. We also suggest further research to take a broader perspective and examine more potential dynamic capabilities that might have an impact on the international scope of Virtual Born Globals. This will further strengthen the managerial implications as well as open up for the possibility of a deeper and more nuanced understanding of which capabilities are beneficial in an international context.

As globalization and digitalization continue to grow, virtual structures will most likely become a more central component of future organizations. More research is therefore needed to better understand the underlying mechanisms, challenges and opportunities. Research should also focus on how virtual teams can better collaborate in order to mitigate the inherent challenges with this structure. Lastly, this thesis has only studies tech-companies. Hence, further research should investigate if the usefulness of virtual teams differ depending on the industry.

8. References

Ale Ebrahim, Nader, Shamsuddin Ahmed, and Zahari Taha. 'Virtual Teams: A Literature Review', (2009), .

Almor, Tamar. 'Conceptualizing Paths of Growth for Technology-Based Born-Global Firms Originating in a
Small-Population Advanced Economy', International Studies of Management & Organization, vol. 43/no. 2, (2013), pp. 56-78.

Andersen, Otto, and Arnt Buvik. 'Firms' Internationalization and Alternative Approaches to the International
customer/market Selection', *International Business Review,* vol. 11/no. 3, (2002), pp. 347-363.

Anderson, Gary, and Gary J. Anderson. *, 'Fundamentals of Educational Research'*, Anonymous Translator(, Psychology Press,
1998).

Andersson, Svante, and Ingemar Wictor. 'Innovative internationalization in New Firms: Born Globals–the Swedish Case',
Journal of International Entrepreneurship, vol. 1/no. 3, (2003), pp. 249-275.

Andersson, Ulf, Jan Johanson, and Jan-Erik Vahlne. 'Organic Acquisitions in the Internationalization Process of the
Business Firm', *MIR: Management International Review,* (1997), pp. 67-84.

Arbaugh, J. Ben, Martha Cleveland-Innes, Sebastian R. Diaz, et al. 'Developing a Community of Inquiry Instrument: *Testing
a Measure of the Community of Inquiry Framework using a Multi-Institutional Sample', The Internet and Higher Education, vol.
11/no. 3, (2008), pp. 133-136.*

Autio, Erkko, Harry J. Sapienza, and James G. Almeida. 'Effects of Age at Entry, Knowledge Intensity, and Imitability on
International Growth', Academy of Management Journal, vol. 43/no. 5, (2000), pp. 909-924.

Badrinarayanan, Vishag, and Dennis B. Arnett. 'Effective Virtual New Product Development Teams: An Integrated
Framework', Journal of Business & Industrial Marketing, vol. 23/no. 4, (2008), pp. 242-248.

Barney, Jay. 'Firm Resources and Sustained Competitive Advantage', *Journal of Management,* vol. 17/no. 1, (1991), pp.
99-120.

Batarseh, Fadi S., John M. Usher, and Joshua J. Daspit. 'Collaboration Capability in Virtual Teams: Examining the

    Influence on Diversity and Innovation', International Journal of Innovation Management, vol. 21/no. 04, (2017), pp. 1750034.

Baxter, Pamela, and Susan Jack. 'Qualitative Case Study Methodology: Study Design and Implementation for Novice

    Researchers', *The Qualitative Report,* vol. 13/no. 4, (2008), pp. 544-559.

Bell, Jim, Rod McNaughton, Stephen Young, et al. 'Towards an Integrative Model of Small Firm internationalization',

    Journal of International Entrepreneurship, vol. 1/no. 4, (2003), pp. 339-362.

Bell, Jim, and Stephen Young. , 'Towards an Integrative Framework of the Internationalization of the Firm', in

    Anonymous *, Internationalization*(, Springer, 1998), 5-28.

Bell, Judith. *, 'Doing Your Research Project: A Guide for First-Time Researchers'*, Anonymous Translator(, McGraw-Hill

    Education (UK), 2014).

Bergiel, Blaise J., Erich B. Bergiel, and Phillip W. Balsmeier. 'Nature of Virtual Teams: A Summary of their Advantages

    and Disadvantages', *Management Research News,* vol. 31/no. 2, (2008), pp. 99-110.

Blumberg, B., DR Cooper, and P. Schindler. 'Business Research Models', (2011).

Business Sweden. 2016. "Internationalization through Digitalisation"[ONLINE]
        Available at: https://www.business-sweden.se/contentassets/027f86ad2aa04af8b57e5011deaad53f/
        internationalization-through-digitalisation_final.pdf
        (Accessed 15th of October, 2017)

Bryman, Alan, and Emma Bell. 'Business Research Methods. 3 Uppl', *Malmö: Liber AB,* (2011), .

Cachia, Moira, and Lynne Millward. 'The Telephone Medium and Semi-Structured Interviews: A Complementary Fit',

    Qualitative Research in Organizations and Management: An International Journal, vol. 6/no. 3, (2011), pp. 265-277.

Cascio, Wayne F. 'Managing a Virtual Workplace', *The Academy of Management Executive,* vol. 14/no. 3, (2000), pp. 81-90.

Chesbrough, Henry W., and David J. Teece. , 'Organizing for Innovation: When is Virtual Virtuous?', in Anonymous , *The Transfer and Licensing of Know-how and Intellectual Property: Understanding the Multinational Enterprise in the Modern World*(, World Scientific, 2008), 335-341.

Chetty, Sylvie, and Colin Campbell-Hunt. 'A Strategic Approach to Internationalization: A Traditional Versus a "born-Global" Approach', *Journal of International Marketing,* vol. 12/no. 1, (2004), pp. 57-81.

Creswell, John W., and Wanqing Zhang. 'The Application of Mixed Methods Designs to Trauma Research', *Journal of Traumatic Stress,* vol. 22/no. 6, (2009), pp. 612-621.

Dekker, Daphne M., Christel G. Rutte, and Van den Berg, Peter T. 'Cultural Differences in the Perception of Critical Interaction Behaviors in Global Virtual Teams', *International Journal of Intercultural Relations,* vol. 32/no. 5, (2008), pp. 441-452.

Dow, Douglas. 'A Note on Psychological Distance and Export Market Selection', *Journal of International Marketing,* vol. 8/no. 1, (2000), pp. 51-64.

Dow, Douglas, and Amal Karunaratna. 'Developing a Multidimensional Instrument to Measure Psychic Distance Stimuli', *Journal of International Business Studies,* vol. 37/no. 5, (2006), pp. 578-602.

Dubé, Line, and Daniel Robey. 'Surviving the Paradoxes of Virtual Teamwork', *Information Systems Journal,* vol. 19/no. 1, (2009), pp. 3-30.

Duffy, Bobby, Kate Smith, George Terhanian, et al. 'Comparing Data from Online and Face-to-Face Surveys', *International Journal of Market Research,* vol. 47/no. 6, (2005), pp. 615.

Easterby-Smith, Mark, and Isabel M. Prieto. 'Dynamic Capabilities and Knowledge Management: An Integrative Role for Learning?', *British Journal of Management,* vol. 19/no. 3, (2008), pp. 235-249.

Forsgren, Mats, and Peter Hagström. 'Ignorant and Impatient Internationalization? the Uppsala Model and Internationalization Patterns for Internet-Related Firms', *Critical Perspectives on International Business,* vol. 3/no. 4, (2007), pp. 291-305.

Furst, Stacie A., Martha Reeves, Benson Rosen, et al. 'Managing the Life Cycle of Virtual Teams', *The Academy of Management Executive,* vol. 18/no. 2, (2004), pp. 6-20.

Gabrielsson, Mika, and V. Kirpalani. 'Overview, Background and Historical Origin of Born Globals; Development of *Theoretical and Empirical Research', Handbook of Research on Born Globals, (2012), pp. 1-15.*

Gabrielsson, Mika, and Tommi Pelkonen. 'Born Internationals: Market Expansion and Business Operation Mode *Strategies in the Digital Media Field', Journal of International Entrepreneurship, vol. 6/no. 2, (2008), pp. 49.*

Gassmann, Oliver, and Marcus Matthias Keupp. 'The Competitive Advantage of Early and Rapidly Internationalising *SMEs in the Biotechnology Industry: A Knowledge-Based View', Journal of World Business, vol. 42/no. 3, (2007), pp. 350-366.*

Ghemawat, Pankaj. 'Distance Still Matters', *Harvard Business Review,* vol. 79/no. 8, (2001), pp. 137-147.

Gummesson, Evert. *, 'Qualitative Methods in Management Research'*, Anonymous Translator(, Sage, 2000).

Ghemawat, Pankaj, and Jordan I. Siegel. 'Cases about Redefining Global Strategy', (2011), .

Gibson, Cristina B., and Jennifer L. Gibbs. 'Unpacking the Concept of Virtuality: The Effects of Geographic Dispersion, *Electronic Dependence, Dynamic Structure, and National Diversity on Team Innovation', Administrative Science Quarterly, vol. 51/no. 3, (2006), pp. 451-495.*

Goodman, Neal. 'Training for Cultural Competence', *Industrial and Commercial Training,* vol. 44/no. 1, (2012), pp. 47-50.

Greblikaite, Jolita, and Rasa Daugeliene. 'The Growing Need of Cross-Cultural Management and Ethics in Business', *European Integration Studies,* vol. 4/(2010), pp. 148-152.

Gummesson, Evert. *, 'Qualitative Methods in Management Research'*, Anonymous Translator(, Sage, 2000).

Gupta, Anil K., Vijay Govindarajan, and Haiyan Wang. *, 'The Quest for Global Dominance: Transforming Global Presence into Global Competitive Advantage'*, Anonymous Translator(, John Wiley & Sons, 2008).

Hagen, Birgit, and Antonella Zucchella. 'Born Globals Or Born to Run? the Long-Term Growth of Born Globals Firms',

    Management International Review, vol. 54/no. 4, (2014), pp. 497-525.

Hall, Amy L., and Ray C. Rist. 'Integrating Multiple Qualitative Research Methods (Or Avoiding the Precariousness of a

    one-legged Stool)', *Psychology & Marketing,* vol. 16/no. 4, (1999), pp. 291-304.

Hardin, Andrew M., Mark A. Fuller, and Robert M. Davison. 'I Know I can, but can we? Culture and Efficacy Beliefs in

    Global Virtual Teams', *Small Group Research,* vol. 38/no. 1, (2007), pp. 130-155.

Harvey, Michael, Milorad M. Novicevic, and Gary Garrison. 'Challenges to Staffing Global Virtual Teams', *Human Resource*

    Management Review, vol. 14/no. 3, (2004), pp. 275-294.

Harvard Business Review. 2016. "Getting Virtual Teams Right" [ONLINE]
    Available at https://hbr.org/2014/12/getting-virtual-teams-right
    (Accessed 15th of October, 2017)

Hashai, Niron, and Tamar Almor. 'Gradually Internationalizing 'Born Globals'firms: An Oxymoron?', *International Business*

    Review, vol. 13/no. 4, (2004), pp. 465-483.

Hill, Susan S., Betty F. Soppelsa, and Gregory K. West. 'Teaching ESL Students to Read and Write Experimental-Research

    Papers', *TESOL Quarterly,* vol. 16/no. 3, (1982), pp. 333-347.

Hood, Jane C. 'Orthodoxy Vs. Power: The Defining Traits of Grounded Theory', *The Sage Handbook of Grounded Theory,*

    (2007), pp. 151-164.

Hunsaker, Phillip L., and Johanna S. Hunsaker. 'Virtual Teams: A Leader's Guide', *Team Performance Management: An*

    International Journal, vol. 14/no. 1/2, (2008), pp. 86-101.

Hutzschenreuter, Thomas, Ingo Kleindienst, and Sandra Lange. 'Added Psychic Distance Stimuli and MNE Performance:

    Performance Effects of Added Cultural, Governance, Geographic, and Economic Distance in MNEs' International

    Expansion', *Journal of International Management,* vol. 20/no. 1, (2014), pp. 38-54.

International Monetary Fund. 2017. World Economy Outlook: Real GDP growth [ONLINE]
    Available at: http://www.imf.org/external/datamapper/NGDP_RPCH@WEO/OEMDC/ADVEC/

WEOWORLD, [Accessed 29 October 2017] Washington, DC.: IMF Publication Services.

Jacobsen, Dag Ingvar, Gunnar Sandin, and Caroline Hellström. *, 'Vad, Hur Och Varför: Om Metodval i Företagsekonomi Och Andra Samhällsvetenskapliga Ämnen'*, Anonymous Translator(, Studentlitteratur, 2002).

James Manyika, Susan Lund, Jacques Bughin, Jonathan Woetzel, Kalin Stamenov, and Dhruv Dhingra, 2016. "Digital globalization: The new era of global flows?" (McKinsey Global Institute) [ONLINE]
   Available at: https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-globalization-the-new-era-of-global-flows [Accessed 10 October 2017].

Jarvenpaa, Sirkka L., Thomas R. Shaw, and D. Sandy Staples. 'Toward Contextualized Theories of Trust: The Role of Trust in Global Virtual Teams', *Information Systems Research,* vol. 15/no. 3, (2004), pp. 250-267.

Johanson, Jan, and Jan-Erik Vahlne. 'The Uppsala Internationalization Process Model Revisited: From Liability of Foreignness to Liability of Outsidership', *Journal of International Business Studies,* vol. 40/no. 9, (2009), pp. 1411-1431.

Johanson, Jan, and Finn Wiedersheim-Paul. 'The Internationalization of the firm—four Swedish Cases', *Journal of Management Studies,* vol. 12/no. 3, (1975), pp. 305-323.

Johnson, Scott D., Chanidprapa Suriya, Seung Won Yoon, et al. 'Team Development and Group Processes of Virtual Learning Teams', *Computers & Education,* vol. 39/no. 4, (2002), pp. 379-393.

Jones, Dylan, David Alford, Andrew Bridges, et al. 'Organizational Factors in Selective Attention: The Interplay of Acoustic Distinctiveness and Auditory Streaming in the Irrelevant Sound Effect.', *Journal of Experimental Psychology: Learning, Memory, and Cognition,* vol. 25/no. 2, (1999), pp. 464.

Jones, Marian V., Nicole Coviello, and Yee Kwan Tang. 'International Entrepreneurship Research (1989–2009): A Domain Ontology and Thematic Analysis', *Journal of Business Venturing,* vol. 26/no. 6, (2011), pp. 632-659.

Kauppila, Olli-Pekka, Risto Rajala, and Annukka Jyrämä. 'Knowledge Sharing through Virtual Teams Across Borders and Boundaries', *Management Learning,* vol. 42/no. 4, (2011), pp. 395-418.

Kayworth, Timothy, and Dorothy Leidner. 'The Global Virtual Manager: A Prescription for Success', *European Management Journal,* vol. 18/no. 2, (2000), pp. 183-194.

King, Nigel. 'Using Interviews in Qualitative Research: Essential Guide to Qualitative Methods in Organizational Research', *London: Sage Publication,* (2004), .

Knight, Gary. 'Born Globals', *Wiley International Encyclopedia of Marketing,* (1996).

Knight, Gary A., and S. Tamar Cavusgil. 'Innovation, Organizational Capabilities, and the Born-Global Firm', *Journal of International Business Studies,* vol. 35/no. 2, (2004), pp. 124-141.

Knight, Jane. 'Internationalization Remodeled: Definition, Approaches, and Rationales', *Journal of Studies in International Education,* vol. 8/no. 1, (2004), pp. 5-31.

Kuemmerle, Walter. 'Home Base and Knowledge Management in International Ventures', *Journal of Business Venturing,* vol. 17/no. 2, (2002), pp. 99-122.

Kuivalainen, Olli, Sanna Sundqvist, and Per Servais. 'Firms' Degree of Born-Globalness, International Entrepreneurial Orientation and Export Performance', *Journal of World Business,* vol. 42/no. 3, (2007), pp. 253-267.

Kundu, Sumit K., and Jerome A. Katz. 'Born-International SMEs: BI-Level Impacts of Resources and Intentions', *Small Business Economics,* vol. 20/no. 1, (2003), pp. 25-47.

Lopez, Luis E., Sumit K. Kundu, and Luciano Ciravegna. 'Born Globals Or Born Regional? Evidence from an Exploratory Study in the Costa Rican Software Industry', *Journal of International Business Studies,* vol. 40/no. 7, (2009), pp. 1228-1238.

Lusterman, Seymour. 'Trends in Corporate Education and Training. Report no. 870.', (1985).

Madsen, Tage Koed, and Per Servais. 'The Internationalization of Born Globals: An Evolutionary Process?', *International Business Review,* vol. 6/no. 6, (1997), pp. 561-583.

Makadok, Richard. "Toward a Synthesis of the resource-based and dynamic-capability Views of Rent Creation', *Strategic Management Journal,* vol. 22/no. 5, (2001), pp. 387-401.

Malhotra, Arvind, Ann Majchrzak, and Benson Rosen. 'Leading Virtual Teams', *The Academy of Management Perspectives,* vol. 21/no. 1, (2007), pp. 60-70.

Malhotra, Ruchika, Arvinder Kaur, and Yogesh Singh. 'A Regression Test Selection and Prioritization Technique', *Journal of Information Processing Systems,* vol. 6/no. 2, (2010), pp. 235-252.

Martinko, Mark J., and William L. Gardner. 'Beyond Structured Observation: Methodological Issues and New Directions', *Academy of Management Review,* vol. 10/no. 4, (1985), pp. 676-695.

Martins, Luis L., Lucy L. Gilson, and M. Travis Maynard. 'Virtual Teams: What do we Know and Where do we Go from here?', *Journal of Management,* vol. 30/no. 6, (2004), pp. 805-835.

McDougall, Patricia Phillips, Scott Shane, and Benjamin M. Oviatt. 'Explaining the Formation of International New Ventures: The Limits of Theories from International Business Research', *Journal of Business Venturing,* vol. 9/no. 6, (1994), pp. 469-487.

Merali, Yasmin, and John Davies. 'Knowledge Capture and Utilization in Virtual Communities', (2001), pp. 92-99.

Moen, Øystein, and Per Servais. 'Born Globals Or Gradual Global? Examining the Export Behavior of Small and Medium-Sized Enterprises', *Journal of International Marketing,* vol. 10/no. 3, (2002), pp. 49-72.

Mudambi, Ram, and Shaker A. Zahra. 'The Survival of International New Ventures', *Journal of International Business Studies,* vol. 38/no. 2, (2007), pp. 333-352.

Mukherjee, Debmalya, Somnath Lahiri, Deepraj Mukherjee, et al. 'Leading Virtual Teams: How do Social, Cognitive, and Behavioral Capabilities Matter?', *Management Decision,* vol. 50/no. 2, (2012), pp. 273-290.

Munkvold, Bjørn Erik, and Ilze Zigurs. 'Process and Technology Challenges in Swift-Starting Virtual Teams', *Information & Management,* vol. 44/no. 3, (2007), pp. 287-299.

Musselwhite, Kimberly, Laura Cuff, Lisa McGregor, et al. 'The Telephone Interview is an Effective Method of Data Collection in Clinical Nursing Research: A Discussion Paper', *International Journal of Nursing Studies,* vol. 44/no. 6, (2007), pp. 1064-1070.

Muzychenko, Olga. 'Cross-Cultural Entrepreneurial Competence in Identifying International Business Opportunities', *European Management Journal,* vol. 26/no. 6, (2008), pp. 366-377.

Nonaka, Ikujiro, Ryoko Toyama, and Akiya Nagata. 'A Firm as a Knowledge-Creating Entity: A New Perspective on the Theory of the Firm', *Industrial and Corporate Change,* vol. 9/no. 1, (2000), pp. 1-20.

Nordman, Emilia Rovira, and Daniel Tolstoy. 'Does Relationship Psychic Distance Matter for the Learning Processes of Internationalizing SMEs?', *International Business Review,* vol. 23/no. 1, (2014), pp. 30-37.

Novick, Gina. 'Is there a Bias Against Telephone Interviews in Qualitative Research?', *Research in Nursing & Health,* vol. 31/no. 4, (2008), pp. 391-398.

Nummela, Niina, Sami Saarenketo, and Kaisu Puumalainen. 'A Global mindset—a Prerequisite for Successful Internationalization?', *Canadian Journal of Administrative Sciences/Revue Canadienne Des Sciences De l'Administration,* vol. 21/no. 1, (2004), pp. 51-64.

O'grady, Shawna, and Henry W. Lane. 'The Psychic Distance Paradox', *Journal of International Business Studies,* vol. 27/no. 2, (1996), pp. 309-333.

Ojala, Arto, and Pasi Tyrväinen. 'Impact of Psychic Distance to the Internationalization Behavior of Knowledge-Intensive SMEs', *European Business Review,* vol. 21/no. 3, (2009), pp. 263-277.

Oviatt, Benjamin M., and Patricia P. McDougall. 'Defining International Entrepreneurship and Modeling the Speed of Internationalization', *Entrepreneurship Theory and Practice,* vol. 29/no. 5, (2005), pp. 537-554.

Oviatt, Benjamin M., and Patricia Phillips McDougall. 'Toward a Theory of International New Ventures', *Journal of International Business Studies,* (1994), pp. 45-64.

Pavlou, Paul A., and Omar A. El Sawy. 'Understanding the Elusive Black Box of Dynamic Capabilities', *Decision Sciences,* vol. 42/no. 1, (2011), pp. 239-273.

Pellegrino, Juan M., and Rod B. McNaughton. 'Beyond Learning by Experience: The use of Alternative Learning Processes by Incrementally and Rapidly Internationalizing SMEs', *International Business Review,* (2017).

Pimenta, Ananda Carvalho, Marcus Joswig, Junior, Moacir De Miranda Oliveira, et al. 'Dimensions on Born-Global Firms' Case Studies', *Apresentação,* vol. 12/no. 1, (2017), pp. 48-61.

Pinjani, Praveen, and Prashant Palvia. 'Trust and Knowledge Sharing in Diverse Global Virtual Teams', *Information & Management,* vol. 50/no. 4, (2013), pp. 144-153.

Powell, Anne, Gabriele Piccoli, and Blake Ives. 'Virtual Teams: A Review of Current Literature and Directions for Future Research', *ACM Sigmis Database,* vol. 35/no. 1, (2004), pp. 6-36.

Prange, Christiane, and Sylvie Verdier. 'Dynamic Capabilities, Internationalization Processes and Performance', *Journal of World Business,* vol. 46/no. 1, (2011), pp. 126-133.

Preece, Stephen B., Grant Miles, and Mark C. Baetz. 'Explaining the International Intensity and Global Diversity of Early-Stage Technology-Based Firms', *Journal of Business Venturing,* vol. 14/no. 3, (1999), pp. 259-281.

Rennie, Michael W. 'Born Globals', *The McKinsey Quarterly,* no. 4, (1993), pp. 45-53.

Rialp, Alex, Josep Rialp, and Gary A. Knight. 'The Phenomenon of Early Internationalizing Firms: What do we Know After a Decade (1993–2003) of Scientific Inquiry?', *International Business Review,* vol. 14/no. 2, (2005), pp. 147-166.

Rialp-Criado, Alex, Inmaculada Galván-Sánchez, and Sonia Ma Suárez-Ortega. 'A Configuration-Holistic Approach to Born-Global Firms' Strategy Formation Process', *European Management Journal,* vol. 28/no. 2, (2010), pp. 108-123.

Rugman, Alan M., and Alain Verbeke. 'A Perspective on Regional and Global Strategies of Multinational Enterprises',
  Journal of International Business Studies, vol. 35/no. 1, (2004), pp. 3-18.

Russel Bernard, H. 'Research Methods in Cultural Anthropology', *Qualitative and,* (1988).

Saarenketo, Sami, Kaisu Puumalainen, Olli Kuivalainen, et al. 'Dynamic Knowledge-Related Learning Processes in
  Internationalizing High-Tech SMEs', *International Journal of Production Economics,* vol. 89/no. 3, (2004), pp. 363-378.

Sarker, Suprateek, and Sundeep Sahay. 'Information Systems Development by US-Norwegian Virtual Teams: Implications
  of Time and Space', (2002), pp. 10 pp.

Schaubroeck, John M., and Andrew Yu. 'When does Virtuality Help Or Hinder Teams? Core Team Characteristics as
  Contingency Factors', *Human Resource Management Review,* (2017), .

Shachaf, Pnina. 'Cultural Diversity and Information and Communication Technology Impacts on Global Virtual Teams:
  An Exploratory Study', *Information & Management,* vol. 45/no. 2, (2008), pp. 131-142.

Shin, Yuhyung. 'Conflict Resolution in Virtual Teams', *Organizational Dynamics,* vol. 34/no. 4, (2005), pp. 331-345.

Shuy, Roger W. 'In-Person Versus Telephone Interviewing', *Inside Interviewing: New Lenses, New Concerns,* (2003), pp.
  175-193.

Silverman, David. *, 'Doing Qualitative Research: A Practical Handbook'*, Anonymous Translator(, SAGE Publications Limited,
  2013).

Silverman, David, and Amir Marvasti. *, 'Doing Qualitative Research: A Comprehensive Guide'*, Anonymous Translator(, Sage,
  2008).

Sinkovics, Noemi, Rudolf R. Sinkovics, and Ruey-Jer "Bryan" Jean. 'The Internet as an Alternative Path to
  Internationalization?', *International Marketing Review,* vol. 30/no. 2, (2013), pp. 130-155.

Statstutor, 2013. Spearman's Correlation. [ONLINE] Available at:
  http://www.statstutor.ac.uk/resources/uploaded/spearmans.pdf (Accessed 12th of May 2016)

Sridhar, V., D. Nath, R. Paul, et al. 'Analyzing Factors that Affect Performance of Global Virtual Teams', (2007), pp. 159-169.

Stanley, Tom D., and Stephen B. Jarrell. 'Meta-Regression Analysis: A Quantitative Method of Literature Surveys', *Journal of Economic Surveys,* vol. 3/no. 2, (1989), pp. 161-170.

Stephens, Neil. 'Collecting Data from Elites and Ultra Elites: Telephone and Face-to-Face Interviews with Macroeconomists', *Qualitative Research,* vol. 7/no. 2, (2007), pp. 203-216.

Sturges, Judith E., and Kathleen J. Hanrahan. 'Comparing Telephone and Face-to-Face Qualitative Interviewing: A Research Note', *Qualitative Research,* vol. 4/no. 1, (2004), pp. 107-118.

Söderlund, Magnus. *, 'Mätningar Och Mått: I Marknadsundersökarens Värld*', Anonymous Translator(, Liber ekonomi, 2005).

Teece, David J., Gary Pisano, and Amy Shuen. 'Dynamic Capabilities and Strategic Management', *Strategic Management Journal,* (1997), pp. 509-533.

Tjortjis, Christos, George Dafoulas, Paul Layzell, et al. 'A Model for Selecting CSCW Technologies for Distributed Software Maintenance Teams in Virtual Organisations', (2002), pp. 1104-1108.

Tracey, Paul, Nelson Phillips, and Owen Jarvis. 'Bridging Institutional Entrepreneurship and the Creation of New Organizational Forms: A Multilevel Model', *Organization Science,* vol. 22/no. 1, (2011), pp. 60-80.

United Nations, General Assembly, Standard country or area codes for statistical use (M49), 2017 *[Accessed 10 November 2017]*, available from https://unstats.un.org/unsd/methodology/m49/

Vasilchenko, Elena, and Sussie Morrish. 'The Role of Entrepreneurial Networks in the Exploration and Exploitation of Internationalization Opportunities by Information and Communication Technology Firms', *Journal of International Marketing,* vol. 19/no. 4, (2011), pp. 88-105.

Welch, Lawrence S., and Reijo Luostarinen. 'Internationalization: Evolution of a Concept',

    Journal of General Management, vol. 14/no. 2, (1988), pp. 34-55.

Wernerfelt, Birger. 'A resource-based View of the Firm', *Strategic Management Journal,* vol. 5/no. 2, (1984), pp. 171-180.

William R.. Shadish, Thomas D. Cook, and Donald Thomas Campbell. *, 'Experimental and Quasi-Experimental Designs for*

    Generalized Causal Inference', Anonymous Translator(, Wadsworth Cengage learning, 2002).

Winter, Sidney G. 'Understanding Dynamic Capabilities', *Strategic Management Journal,* vol. 24/no. 10, (2003), pp. 991-995.

Wright, Mike, Paul Westhead, and Deniz Ucbasaran. 'Internationalization of Small and Medium-Sized Enterprises (SMEs)

    and International Entrepreneurship: A Critique and Policy Implications', *Regional Studies,* vol. 41/no. 7, (2007), pp.

    1013-1030.

Yamin, Mohammad, and Rudolf R. Sinkovics. 'Online internationalization, Psychic Distance Reduction and the Virtuality

    Trap', *International Business Review,* vol. 15/no. 4, (2006), pp. 339-360.

Zahra, Shaker A., Harry J. Sapienza, and Per Davidsson. 'Entrepreneurship and Dynamic Capabilities: A Review, Model

    and Research Agenda', *Journal of Management Studies,* vol. 43/no. 4, (2006), pp. 917-955.

Zakaria, Norhayati, Andrea Amelinckx, and David Wilemon. 'Working Together Apart? Building a knowledge-sharing

    Culture for Global Virtual Teams', *Creativity and Innovation Management,* vol. 13/no. 1, (2004), pp. 15-29.

9. Appendix

Appendix 1. Overview of the Interviews

1.1 Interviews for Main Study

Company	Position	Nationality of founder(s)	Number of employees after three years	Employees in how many countries after three years	Number of regions after three years	Interview date
MAILBIRD	Marketing team	Denmark/Philippines	10-14	9	23	171102
RAILSWARE	Founder	Bulgaria	35-49	5	4	171027
SMARTLAUNCH	COO	Denmark	7	3	23	171018
IDEAHUNT	Founder	Sweden	10-14	3	2	171010
BALSAMIQ	CEO	Italy	10-14	4	23	171101
MELEWI	COO	Singapore	5-9	8	3	171022
BLUESPARK	Marketing team	United States	10-14	4	2	171021
ANONYMOUS	CEO	United States	35-49	8	19	171020

Table A.1.1: *List of characteristics for interviewer and company*

1.2 Pre-Study

Company	Type of organization	Objective	Interview date
Outpost	Co-working space, Bali	Learn more about virtual Born Globals, gain more knowledge about capabilities	171001
Accomplice	Digital production agency, Sweden	Learn about challenges associated with internationalization, develop questions about capabilities	171007
Foodflow	Tech company specialized in food delivery, Sweden	Learn about challenges associated with internationalization, develop questions about capabilities	171007

Table A.1.2: *List of characteristics for interviewer and company for pre-study*

Appendix 2. Survey for Study 1

12/9/2017   Survey on Virtual Compaines

Survey on Virtual Compaines

Thank you so much for taking the time!

Company info

1. **What is your company name?**

   _____

2. **From which country is the founder from?**

   _____

3. **Approximately how many employees were you after 3 years?**
   Mark only one oval.

   ( ) 1-4
   ( ) 5-9
   ( ) 10-14
   ( ) 15-24
   ( ) 25-34
   ( ) 35-49
   ( ) 50+

4. **In how many countries, after 3 years, did you have employees located in?**

   _____

   _____
   _____
   _____
   _____
   _____

Internationalization process

5. **Is Is there any country that accounts for more than 75% of your turnover?**
   Mark only one oval.

   ( ) Yes
   ( ) No

https://docs.google.com/forms/d/1ZHSjT4WzsegqLZDArb3NxtShUCXyNUy8qCr9YtBelEs/edit   1/3

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After three years, which of the following regions did you sell to?

6. **North America**

Tick all that apply.

- ☐ Northern America – USA and Canada
- ☐ Central America – The continental countries from Mexico to Panama City
- ☐ Carribean – all island nations in North and South America

7. **Europe**

Tick all that apply.

- ☐ Northern Europa – Skandinavia and Great Britain
- ☐ Eastern Europe – The Baltics down to Turkey
- ☐ Central Europe – Germany and the landlocked countries around it
- ☐ Southern Europe – Greece to Portugal

8. **Asia**

Tick all that apply.

- ☐ North and Eastern Asia – Everything from Russia to Japan
- ☐ South Eastern Asia – All countries between PNG and Philippines to Myanmar
- ☐ South Central Asia – Bangladesh to Iran, reaching from Khazakstan in the North to the Maldives in the South
- ☐ West Asia - Turkey and Israel to Oman and the rest of the Gulf States

9. **Oceania**

Tick all that apply.

- ☐ Australia and New Zealand + Papua New Guinea
- ☐ North Pacific – Palau, Micronesia, Marshall Islands
- ☐ South Pacific – The remaining small island nations ranging from Solomon Islands to the Cook Islands

10. **South America**

Tick all that apply.

- ☐ Northern South America – Ecuador to French Guiana
- ☐ Western South America – Peru to Chile
- ☐ Eastern South America – Brazil to Argentina

11. **Africa**

Tick all that apply.

- ☐ Northern Africa – covering everything above the Saharan desert from Egypt to Morocco
- ☐ Eastern Africa – Sub Saharan countries in the East ranging from Sudan to Mozambique
- ☐ Western Africa – Sub Saharan countries ranging from Mauritania to Congo
- ☐ Southern Africa – Everything between Angola and Zimbabwe down to South Africa

Perceived psychic distance

To what extent do you agree with the following statements (1= do not agree at all, 7=agree completely):

13.
Language differences between countries imply a challenge for my company's internationalization process

Mark only one oval.

	1	2	3	4	5	6	7	
Do not agree at all	◯	◯	◯	◯	◯	◯	◯	Agree completely

14.
Economic dfferences between countries imply a challenge for the internationalization process of my company

Mark only one oval.

	1	2	3	4	5	6	7	
Do not agree at all	◯	◯	◯	◯	◯	◯	◯	Agree competely

15.
Administrative differences, e.g. laws and currencies, imply a challenge for the internationalization process of my company

Mark only one oval.

	1	2	3	4	5	6	7	
Do not agree at all	◯	◯	◯	◯	◯	◯	◯	Agree completely

16. **Cultural differences between countries in terms of underlying factors, such as norms, attitudes and values, imply a challenge for the internationalization process of my company**

Mark only one oval.

	1	2	3	4	5	6	7	
Do not agree at all	◯	◯	◯	◯	◯	◯	◯	Agree completely

17.
Time zone differences between countries imply a challenge for the internationalization process of my company

Mark only one oval.

	1	2	3	4	5	6	7	
Do not agree at all	◯	◯	◯	◯	◯	◯	◯	Agree completely

Thank you!

Appendix 3. Interview Guide Main Study for Study 2

PRESENTATION
- Presentation of the thesis and us
- Information about the interview set up (time, recorded and transcribed, potential to be anonymous, potential to read the thesis when done etc.)

GENERAL INFO ABOUT THE INTERVIEWEE
- What is your position in the firm? What do you do?
- Which team are you a part of?
- Have you been in the organization from inception?

GENERAL INFO ABOUT THE BUSINESS
- Tell us more about the business? (e.g. how did it start, by who etc.)
- How long has the firm existed?
- Tell us more about the founder?
- Explain the organizational structure? (e.g. flat vs hierarchy, geographical dispersement etc.)
- How many employees are you today and how are they located?
- What is the company vision?

QUESTIONS REGARDING INTERNATIONALIZATION
- What has your internationalization process looked like- from inception until today?
- How do you think that being a virtual start-up affected your internationalization process?
- How do you handle differences in markets? E.g. cultural differences?
- How do you think not having a "home-market" has affected your internationalization process?
- Would you say that it was more difficult/easier to enter any specific market? If so, why?
- Is there any market that is more important for you than another?
- Is there any market you consciously do not enter? If so, why?

QUESTIONS REGARDING DYNAMIC CAPABILITIES
- How do you identify new business opportunities?
- How do you work to ensure that your service is in line with what your
- customers want?
- How are you working to transfer individual knowledge and inputs into the group?
- How do you handle different cultures within the team?
- How do you handle different time-zones within the team?
- How do you handle differences with regards to economic situation in countries that might differ depending on which country your employees are situated in?
- How do you handle differences with regards to administrative distances, e.g. laws and rules, that might differ between the home country of your employees?
-

ADVANTAGES AND DISADVANTAGES OF BEING A VIRTUAL TEAM
- What are the main advantages and disadvantages of working with a virtual organizational structure?

- What do you think about the future for virtual teams?

Appendix 4. United Nations Geoscheme

4.1 Asia - constituting regions and countries

Central Asia	Eastern Asia	Southern Asia	Southeastern Asia	Western Asia
Kazakhstan Kyrgyzstan Tajikistan Turkmenistan Uzbekistan	China Taiwan Hong Kong, China Japan Macau Mongolia North Korea South Korea	Afghanistan Bangladesh Bhutan India Iran Maldives Nepal Pakistan Sri Lanka	Brunei Darussalam Cambodia Indonesia Lao People's Democratic Republic Malaysia Myanmar Philippines Singapore Thailand Timor-Leste Viet Nam	Armenia Azerbaijan Bahrain Cyprus Georgia Iraq Israel Jordan Kuwait Lebanon Oman Qatar Saudi Arabia State of Palestine Syria Turkey United Arab Emirates Yemen

4.2 Europe - constituting regions and countries

Eastern Europe	Northern Europe[edit]	Southern Europe	Western Europe
Belarus Bulgaria Czechia Hungary Poland Moldova Romania Russian Federation Slovakia Ukraine	Åland Islands Denmark Estonia Faroe Islands Finland Guernsey Iceland Ireland Isle of Man Jersey Latvia Lithuania Norway Sark Svalbard and Jan Mayen	Albania Andorra Bosnia and Herzegovina Croatia Gibraltar Greece Italy Macedonia, FYR Malta Montenegro Portugal San Marino Serbia Slovenia Spain	Austria Belgium France Germany Liechtenstein Luxembourg Monaco Netherlands Switzerland

	Sweden United Kingdom	Vatican City			

4.3 North & South America - constituting regions and countries

Caribbean	Central America	Northern South America	Western South America	Eastern South America	Northern South America
Anguilla Antigua and Barbuda Aruba Bahamas Barbados Bonaire, Sint Eustatius and Saba British Virgin Islands Cayman Islands Cuba Curaçao Dominica Dominican Republic Grenada Guadeloupe Haiti Jamaica Martinique Montserrat Navassa Island Puerto Rico Saint-Barthélemy Saint Kitts and Nevis Saint Lucia Saint Martin (French part) Saint Vincent and the Grenadines Sint Maarten (Dutch part) Trinidad and Tobago Turks and	Belize Costa Rica Clipperton Island El Salvador Guatemala Honduras Mexico Nicaragua Panama	Ecuador French Guiana Colombia Venezuela (Bolivarian Republic of) Guyana	Peru Chile Bolivia (Plurinational State of)	Argentina Brazil Paraguay Suriname Uruguay	Bermuda Canada Greenland Saint Pierre and Miquelon United States

Caicos Islands United States Virgin Islands				

4.4 Africa - constituting regions and countries

Eastern Africa	Central Africa	Northern Africa	Southern Africa	Western Africa
Burundi Comoros Djibouti Eritrea Ethiopia Kenya Madagascar Malawi Mauritius Mayotte Mozambique Réunion Rwanda Seychelles Somalia South Sudan Tanzania Uganda Zambia Zimbabwe	Angola Cameroon Central African Republic Chad Democratic Republic of the Congo Equatorial Guinea Gabon Republic of the Congo São Tomé and Príncipe	Algeria Egypt Libya Morocco Sudan Tunisia Western Sahara	Botswana Lesotho Namibia South Africa Swaziland	Benin Burkina Faso Cabo Verde Cote d'Ivoire Gambia Ghana Guinea Guinea-Bissau Liberia Mali Mauritania Niger Nigeria Saint Helena, Ascension and Tristan da Cunha Senegal Sierra Leone Togo

4.5 Oceania - constituting regions and countries

Australia & New Zealand	North Pacific	South Pacific
Australia New Zealand	Papua New Guinea Fiji Vanuatu New Caledonia Micronesia Marshall Islands	French Polynesia Guam Kiribati Samoa Samoa, American Tonga Solomon Islands

Appendix 5. Complete list of Virtual Born Globals' Descriptive Values

Order	Virtual Born Globals	CAGE-output	Geographic Dispersion	Proxy Domestic Market	Employees	Nr. Export regions
1	Idea Hunt	13678	3	Sweden	10-14	2
2	Unknown	45046	2	USA	5-9	6
3	X-Team	120102	9	Australia	50+	12
4	DevriX	22524	5	Bulgaria	15-24	4
5	Unknown	10208	2	USA	10-14	2
6	Unknown	73299	2	South Africa	1-4	9
7	Balsamiq	188231	7	Italy	10-14	23
8	Arkency	54301	2	Poland	5-9	7
9	Canonical	64850	15	South Africa	50+	6
10	Unknown	6973	3	USA	10-14	2
11	Mailbird	238347	9	Denmark	10-14	23
12	Melewi Pte	11750	8	Singapore	5-9	3
13	Labster	47917	5	Denmark	50+	5
14	AgentFire	85002	2	USA	25-34	8
15	Launch Potato	97030	3	USA	15-24	9
16	Owsy	68203	6	Germany	10-14	6
17	Honeybadger	200779	2	US	1-4	23
18	Demio	200779	3	US	5-9	23
19	Zapier	76147	9	US	35-49	9
20	eyeo GmbH	81836	4	Germany	35-49	9
21	Plex	150149	8	USA	35-49	17
22	Hotjar	174154	13	Malta	35-49	23
23	Help Scout	105789	5	USA	25-34	14

24	Scrapinghub	103952	5	Ireland	50+	13
25	Doist	187114	15	Denmark	15-24	23
26	Toptal	70320	3	England	35-49	8
27	Bluespark	14050	2	USA	25-34	2
28	Unknown	34050	3	France	35-49	3
29	Unknown	129944	9	England	25-34	14
30	Articulate	160404	2	USA	25-34	16

Table A.5: *List of characteristics for Virtual Born Globals*

Appendix 6. Export Continents after Three Years

6.1 Virtual Born Globals Expansion Pattern

Order	Virtual Born Globals	North America	Europe	Asia	Oceania	South America	Africa
1	**Idea Hunt**	X	X				
2	**Unknown**	X	X				
3	**X-Team**	X	X		X		
4	**DevriX**	X	X	X			
5	**Unknown**	X	X		X	X	
6	**Unknown**	X	X	X	X	X	X
7	**Balsamiq**	X	X	X	X	X	X
8	**Arkency**	X	X				
9	**Canonical**	X	X	X			X
10	**Unknown**	X			X		
11	**Mailbird**	X	X	X	X	X	X
12	**Melewi Pte**		X	X	X		
13	**Labster**	X	X	X	X	X	

14	**AgentFire**	X		X	X			
15	**Launch Potato**	X		X				
16	**Owsy**	X		X				
17	**Honeybadger**	X		X	X	X	X	X
18	**Demio**	X		X	X	X	X	X
19	**Zapier**	X		X		X		
20	**eyeo GmbH**	X		X	X			X
21	**Plex**	X		X	X	X	X	X
22	**Hotjar**	X		X	X	X	X	X
23	**Help Scout**	X		X	X	X	X	X
24	**Scrapinghub**	X		X	X	X	X	
25	**Doist**	X		X	X	X	X	X
26	**Toptal**	X		X			X	X
27	**Bluespark**	X		X				
28	**Unknown**	X		X				
29	**Unknown**	X		X	X	X	X	
30	**Articulate**	X		X	X		X	X

Table A.6.1*: Complete list of continents Virtual Born Globals export to after three years*

6.2 Theoretical Benchmark's internationalization pattern

Theoretical Framework	Domestic market	North America	Europe	Asia	Oceania	South America	Africa
Chetty & campbell (2004)	New Zealand	X	X		X		
Almor (2013)	Israel	X	X	X			
Lopez et al. (2004)	Costa Rica	X				X	

Table A.6.2: *Complete list of continents theoretical benchmark export to after three years*

Appendix 7. Quartiles Analyzes of Complete Data Set

	Quartile	Total	Theoretical Benchmark	Virtual Born Globals
1	x<5340	21	15	0
2	5340<x<18873	8	9	6
3	18874<x74690	15	6	9
4	74690<x	15	0	15
	Total	**60**	**30**	**30**

Table A.7.1: *Market distance-export (psychic distance) matrix*