



LISBON  
SCHOOL OF  
ECONOMICS &  
MANAGEMENT  
UNIVERSIDADE DE LISBOA

**MASTER OF SCIENCE IN  
MANAGEMENT AND INDUSTRIAL STRATEGY**

**MASTERS FINAL WORK  
DISSERTATION**

**BORDERLESS COMPANIES: THE ROLE OF  
ENTREPRENEURS AND NETWORK RELATIONSHIPS IN  
THE DEVELOPMENT OF GLOBAL VALUE SYSTEMS**

**GONÇALO EURICO ALMEIDA MARTINS**

**OCTOBER - 2016**



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## ABSTRACT

Recent studies on international entrepreneurship have highlighted an overall need of new theories capable of explaining how certain *borderless firms* are able to create and develop value through a cross-border configuration of value system activities. To address this state of affairs, this study set out to understand how these companies are formed and managed, as well as how the entrepreneurial team and network relationships influence the development of *borderless* approaches.

This work is carried out using a qualitative method, with three case studies developed on Portuguese companies that seemingly fit the *borderless* classification. The empirical evidence highlighted that *borderless firms* are mainly the result of effectuation processes leveraged on principles of affordable loss, non-predictive strategies and an openness to establish partnerships. The entrepreneurial team's capabilities, international experience, ambition and business vision were found to be key factors leading to *borderless* configurations. Lastly, network relationships proved crucial elements in the choice of the first country where value chain activities were developed and were shown to be actively procured to reduce entry risk and leverage limited resources.

Keywords: International New Ventures; Born Globals; Borderless Companies; Network Relationships; Entrepreneurial Team; Startups

## RESUMO

Os estudos recentemente desenvolvidos em empreendedorismo internacional têm evidenciado uma necessidade de novas teorias capazes de explicar como determinadas *borderless firms* criam e desenvolvem riqueza através de uma configuração transfronteiriça de atividades na sua cadeia de valor. Com o intuito de ajudar a suprimir esta necessidade, este estudo pretende compreender como estas empresas são criadas e geridas, assim como analisar a influência da equipa fundadora e dos relacionamentos em rede para o desenvolvimento de abordagens sem fronteiras.

A presente investigação foi desenvolvida tendo por base uma metodologia qualitativa, com três estudos de caso de empresas portuguesas que, numa primeira análise, aparentam encaixar-se na classificação de *borderless*. A evidência empírica demonstrou que as *borderless firms* são principalmente resultado de processos de efetivação alavancados nos princípios de *affordable loss*, estratégias não-preditivas e numa abertura para estabelecer parcerias. As capacidades da equipa empreendedora, a experiência internacional, ambição e visão de negócios foram identificados como sendo fatores-chave que conduzem a configurações transfronteiriças. Por último, os relacionamentos em rede demonstraram ser elementos cruciais para a escolha do primeiro país onde as atividades da cadeia de valor foram desenvolvidas, sendo ativamente procurados como forma de reduzir o risco de entrada e alavancar recursos limitados.

Palavras-chave: *International New Ventures; Born Globals; Borderless Companies; Redes de Relacionamentos; Equipa Empreendedora; Startups*

## RESUMÉ

Des études récentes sur l'entrepreneuriat international ont mis en évidence un besoin global de nouvelles théories capables d'expliquer comment certaines *borderless firms* sont en mesure de créer et de développer la valeur, grâce à une configuration transfrontalière des activités du système de valeur. Pour adresser cet état de choses, cette étude visait à comprendre comment ces sociétés sont formées et gérées, ainsi que la façon dont les relations d'équipe et de réseau d'entreprise influent sur le développement d'approches sans marge.

Ce travail est effectué à l'aide d'une méthode qualitative, avec trois études de cas élaborées sur les sociétés portugaises qui correspondent apparemment au classement *borderless*. La preuve empirique a souligné que les *borderless firms* sont principalement le résultat des processus *effectuation* à effet de levier sur les principes de la perte abordable, des stratégies non prédictives et une ouverture pour établir des partenariats. Les capacités de l'équipe entrepreneur, l'expérience internationale, l'ambition et la vision de l'entreprise se sont révélés être des facteurs clés menant à des configurations sans marge. Enfin, les relations de réseau se sont avérés des éléments cruciaux dans le choix du premier pays où les activités de la chaîne de valeur ont été développés et se sont révélés être activement acquise pour réduire le risque d'entrée et de tirer parti des ressources limitées.

Mots-clés: *International New Ventures; Born Globals; Borderless Companiesles; Relations de Réseau; Équipe Entrepreneuriale; Startups*

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## TERMS AND ABBREVIATIONS

BSc – Bachelor of Science

B2B – Business to Business

CMU – Carnegie Mellon University

EDP – Energias de Portugal

ESA – European Space Agency

Fintech – Financial technology

LBS – London Business School

MBA – Master of Business Administration

MSc – Master of Science

PhD – Doctor of Philosophy

R&D – Research and Development

SAP – SAP Ventures

SIBS – Forward Payment Solutions, S.A.

## 1. INTRODUCTION

In recent years there has been a significant rise in the number of companies that have tried to achieve a global reach. The first characterization of these companies appeared under the label of *international new ventures* (Oviatt & McDougall, 1994, p. 49) defined as "a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries". Later on, those firms that started their international operations before or along domestic ones, while basing them on a global vision (Luostarinen & Gabrielsson, 2006), started to be called *born globals* (Knight & Cavusgil, 1996; Madsen & Servais, 1997).

Ever since the concepts of *international new ventures* and *born globals* first appeared, there has been a widespread assumption that these companies start their operations from a single home base location and that their growth is well established within what Kuemmerle (2005) called a Zone of Balanced Expansion.

The companies that established their value chain activities in different geographic locations from inception in order to increase their odds of success have, however, been grouped within the same *born global* category despite the clear strategic differences in their actions (Simões et al., 2015).

Recently a group of researchers noticing the inconsistency on how the bulk of the literature has addressed this issue, labeled this new type of firms as *borderless companies* (Simões et al., 2015) and highlighted that the emergence of such entities may be related to the development of trust relationships between the various players involved, instead of a previously defined plan regarding a preconceived company configuration.

Given the latest advances concerning the uprising of *borderless companies* (Mathews & Zander, 2007; Simões et al., 2015), this dissertation aims to develop three central themes, specifically: How did these companies develop as cross-border entities? How important are network relationships for the expansion of these companies? How do the characteristics of the entrepreneurial team influence the development of companies as *borderless*?

In order to address these questions, this study will investigate Portuguese companies that, encompassing different industries, seem to fit the definition of *borderless* and developing an *ex-post* evaluation based on the analysis of results of the interviews provided by these companies' entrepreneurial teams to hopefully add to the academic knowledge base in this field of study.

To respond to the intended objectives, this dissertation will be divided in seven chapters. The first chapter includes the present introduction that covers the information regarding the theme in study and its central topics of investigation. The second chapter provides a review of the relevant literature to the study and focusses mainly on the origin and evolution of international new ventures, the development of *born globals* with a focus on the importance of network relations and the entrepreneurial team for the development of *borderless companies*, and on the configuration of activities in *born global* firms. The third chapter presents the research questions. The fourth delves on the chosen research methodology, information sources used and the case studies selected. The fifth and sixth chapters deal with the empirical results of the case studies and their discussion, respectively. Lastly, the seventh chapter summarizes the main conclusions and contributions to the theory, identifies the limitations of this exercise and suggests recommendations for future research.

## 2. LITERATURE REVIEW

This chapter entails a review of the literature regarding what can be considered the three main themes of this dissertation: How are *borderless companies* formed and managed? How important are network relationships for the development of *borderless* companies? How does the entrepreneurial team influence the development of these companies?

The literature review is structured as follows: (i) *international new ventures* in international entrepreneurship theory; (ii) definition and characterization of *born global* firms; (iii) development of *born globals*; (iv) network relationships in international theory; (v) the role of the entrepreneurial team in internationalization; and (vi) the configuration of activities in *born globals*.

### 2.1. *International new ventures in international entrepreneurship theory*

Since the early 1990s several researchers have come to contribute to the knowledge expansion on internationalization processes of companies and, in several instances, involving the concept of entrepreneurship (Jolly, Alahuhta, & Jeannet, 1992; Jones & Coviello, 2005; Keupp & Gassmann, 2009; McDougall & Oviatt, 2000; Oviatt & McDougall, 1995; Reuber & Fischer, 1997; Tamer Cavusgil & Knight, 2003). While the internationalization process was formerly viewed as an arduous incremental road, the spread of information and communication technologies, coupled with overall lower cross-border shipping costs of goods around the world (Kuemmerle, 2005), gave way to a paradigm shift. Oviatt & McDougall (1994) were the first to approach this issue, defining a new type of companies, naming them *international new ventures*. Instead of following an incremental internationalization process and slowly spreading to different

destinations over discrete occasions in time, these companies thanks to the ever growing possibilities of a more “enabling environment”, characterized by globalization, liberisation of markets and technological change (Mudambi, 2008; Simões & Dominguihos, 2001, p. 9), developed their business models to capture inputs from different sites, thus leveraging the different capabilities inherent to them while simultaneously promoting their sales.

In the years following the publication of McDougall and Oviatt's (1994) seminal article, several other researchers sought to combine the concepts of entrepreneurship and international business in one, calling it as International Entrepreneurship (McDougall & Oviatt, 2000). However it was only later that researchers first proposed a coherent definition of this new area of study, defining international entrepreneurship as a "... process of discovering and creatively exploiting opportunities that lie outside the firm's domestic markets in the pursuit of competitive advantage" (Zahra & George, 2002, p. 266). Oviatt and McDougall (2005, p. 540) made a further contribution to the field by overhauling the definition of international entrepreneurship as the "discovery, enactment, evaluation, and exploitation of opportunities - across national borders - to create future goods and services".

Although there has been a notorious fragmentation, lack of unifying theories and inconsistencies in the study of international entrepreneurship (Gabrielsson, Kirpalani, Dimitratos, Solberg, & Zucchella, 2008; Liesch, Håkanson, McGaughey, Middleton, & Cretchley, 2011; Zahra, Jennings, & Kuratko, 1999), since the phenomena in question are usually attributed to incremental processes, the last two decades have not yet been sufficient to develop a consistent and unified field (Jones, Coviello, & Tang, 2011). There have been several studies in the field of international entrepreneurship concerning

companies known as *born global* (Jones et al., 2011). These companies although small and with limited tangible resources (Knight & Liesch, 2015) are characterized by successfully competing against large, established players in several international markets from an early age (Rennie, 1993), possessing a global mindset that enables them to establish “global niche” markets (Govindarajan & Gupta, 2001; Simões & Dominguihos, 2001, p. 9) through their unique intangible resources and capabilities (Knight & Cavusgil, 2004; Zahra, Carleton, & Matherne, 2003).

## 2.2. *Born global characteristics and definition*

There are several names for these new companies such as “*international new ventures*” (Oviatt & McDougall, 1994), “*global start-ups*” (Bell, 1995), “*rapid internationalizers*” (Madsen & Servais, 1997), “*network/customer-driven internationalizers*” (Coviello, 2006) and “*micromultinationals*” (Dimitratos, Johnson, Slow, & Young, 2003). However, the most appealing label is the term “*born global*” (Rennie, 1993) due to the importance these firms convey in the new world economy (Knight & Liesch, 2015).

The literature contributions made by authors over the years resulted in different views on the factors considered appropriate for classifying a company as *born global* (Gabrielsson et al. 2008). Hence it becomes clear that there is a need to streamline these parameters (Knight & Liesch, 2015). Several authors consider criteria such as the time at which companies begin their international sales and the ratio between the volume of international business and total volume of business of the company to be crucial quantitative parameters to the definition of these types of companies (Dominguihos, 2007; Dominguihos & Simões, 2004; Gabrielsson et al., 2008; Meyn, 2009).

For the purposes of this dissertation we will use Andersson and Wictor's (2003, p. 254) definition of *born global* as a “company that has achieved a foreign sales volume of at least 25% within 3 years of its inception and that seeks to derive significant competitive advantage from the use of resources and the sales of outputs in multiple countries”.

### 2.3. *The development of born globals*

According to Oviatt and McDougall's (1994) original article on *international new ventures*, there are four crucial conditions to justify the survival of this new type of companies in the globalized world. The first is that they must go through a process of task internalization that takes advantage of key competencies. Secondly, they should have a strong reliance on alternative governance structures. This includes that they organize in a hybrid fashion, such as through licensing and franchising, in order to overcome potential resource shortages by leveraging knowledge networks that allow them to create complementary bases and thus minimize the risks of acting alone. Thirdly, firms should be able to recognize opportunities in foreign markets. Finally, companies ought to be capable of creating structures that enable them to ensure their long-term competitive advantages as well as leverage new features in order to avoid generating nuclear rigidities.

Several studies have identified motives for the emergence and development of *born global* firms (Andersson, Gabrielsson, & Wictor, 2004; Andersson & Wictor, 2003; Knight & Cavusgil, 1996; Madsen & Servais, 1997). Andersson and Wictor (2003) highlight four factors that hold great influence on the development of *born global* firms: entrepreneurs, networks, industry and globalization. Such factors reflect a concordant



view that the characteristics that influence the growth of *born globals* can be clustered around aspects related to the industry and to the company (Canudo, 2012). Other researches have also identified the important roles of networks (Coviello, 2006; Coviello & Munro, 1997; Falahat, Migin, Chuan, & Kong, 2015; Mort & Weerawardena, 2006) and entrepreneurs (Dominguinhos, 2007; Hashimoto, 2011; Madsen & Servais, 1997; Oviatt & McDougall, 1994; Reuber & Fischer, 1994, 1997; Shepherd, Douglas, & Shanley, 2000) in the *born global* phenomena. A closer look on these two aspects will follow next.

### *2.3.1. Network relationships in internationalization theory*

According to Coviello and Munro (1997), networks directly influence the choice of which countries to approach and are, therefore, a decisive factor in the internationalization process. These serve as knowledge sources about external markets and help develop new business approaches, opportunities, and reduce the risks of internationalization (Ellis, 2000; Johanson & Vahlne, 2006, 2009; Madsen & Servais, 1997; Zain & Ng, 2006). Network relationships also allow companies to gain competitive advantage through the exploration of both personal and corporate relations and have been associated with sharing of R&D costs, overcoming of resources and competencies shortages and enabling an easier access to markets (Simões & Dominguinhos, 2001). As such, companies that wish to attain higher performance in foreign markets need to develop their network capabilities (Dunning, 2002; Falahat et al., 2015). Mort and Weerawardena (2006) share a similar view and consider that since *born globals* are usually resource poor, their networking capability enables them with sought after market knowledge with which they could not otherwise perform. It can

therefore be stated that the network capability is “positively related to rapid internationalization” (Crespo, Simões, & Fontes, 2015; Falahat et al., 2015, p. 615).

### 2.3.2. *The role of the entrepreneurial team in internationalization*

*Born global* entrepreneurial teams are often the heart and soul of the company and are responsible for establishing and guiding the direction that the company must follow, this being the reasoning for the sometimes painful task of trying to distinguish the original resources of the company and the skills and capabilities of the entrepreneurs (Ambos & Birkinshaw, 2010; Madsen & Servais, 1997; Simões, 2012). *Born global* entrepreneurs possess high academic qualifications, speak several languages, hold multiple international contacts (Dominguinhos, 2007; Madsen & Servais, 1997; Oviatt & McDougall, 1995) and usually share important characteristics such as high levels of ambition, motivation and global vision for the firm (Andersson et al., 2004; Oviatt & McDougall, 1995).

It may therefore be argued that entrepreneurs are the most valuable resource in *born global* firms (Dominguinhos & Simões, 2004) and that their previous international experience or international drive greatly influences whether a firm internationalizes since inception (Dominguinhos & Simões, 2004; Luostarinen & Gabrielsson, 2006) in response to near invisible market opportunities (Oviatt & McDougall, 1995).

A key issue in international entrepreneurship relates to the debate of a company being the result of a set of capabilities designed by the entrepreneurial team in order to respond to an identified business opportunity (Knight & Cavusgil, 2004; Shane & Venkataraman, 2000) or being instead a consequence of an entrepreneurial process of learning and experimentation through the resources at hand.

Concerning this last view there are two main streams of literature. The first envisions entrepreneurial processes as *bricolage* (Baker, Miner, & Eesley, 2003; Baker & Nelson, 2005; Garud & Karnoe, 2003) entailing an attitude of “making do” with the assets available or through a “combination of resources for new purposes” (Baker & Nelson, 2005, p. 335).

The second view commonly known as an “effectual logic” (Sarasvathy, 2008, p. 23) is a direct opposite to a causal logic and is based on the premise that “to the extent we can control the future, we do not need to predict it”. Effectuation processes are not focused on a single goal. Instead, they start with the entrepreneurs characteristics, such as who they are, what they know and who they know (Andersson, 2011; Sarasvathy, 2008) and follow a set of principles which when contrasted with causation involve “affordable loss, rather than expected returns; strategic alliances, rather than competitive analyses; exploitation of contingencies, rather than preexisting knowledge; and control of an unpredictable future, rather than prediction of an uncertain one” (Sarasvathy, 2001, p. 259).

It is important to remark that effectuation processes are sometimes caused by unforeseen events causing early conventions to pivot (Sarasvathy, 2008) and occur both before, during, and after a company has been created (Chandra, Styles, & Wilkinson, 2012; Kalinic, Sarasvathy, & Forza, 2014; Mathews & Zander, 2007). As such it can be claimed that effectuation is grounded on the principles of “non-predictive strategy” (Wiltbank, Dew, Read, & Sarasvathy, 2006) and “non-predictive control” (Sarasvathy, 2008).

According to Lindgren and Packendorff (2003, p. 87) it is important to view the entrepreneurial process as a “collective process” and entrepreneurial acts as “collective

acts” that should be regarded as “constructed by a number of “co-actors” in social networks rather than single persons” showcasing the important role of the “audience” (i.e. stakeholders) in shaping the path followed by a firm.

In this view, entrepreneurs can be seen as effectuators who “see the world as open, still in-the-making” that “work to *fabricate*, as well as recognize and discover opportunities” (Sarasvathy, 2008, p. 23). As such, even though they do not possess a complete knowledge on how a certain investment might pan out they “do not seek to avoid failure” but to “make success happen” by leveraging the above “means” available (Sarasvathy, 2008, p. 23).

Sarasvathy (2001) argues that effectuation processes play a particularly effective role when the future is unpredictable as opposed to causation processes that are more suitable in stationary environments. In this view, experienced entrepreneurs have been found to use effectuation instead of causation in their early internationalization efforts (Harms & Schiele, 2012). This observation was further reinforced by Kalinic et al. (2014), who found that the level of commitment to a foreign market would rapidly increase when a switch from causal to effectual logic occurred in conditions of a high level of uncertainty.

Concurrently there have been several cases in which academics have used effectual logic to assess the progress of *born global* firms (Andersson, 2011; Galkina & Chetty, 2015; Mort, Weerawardena, & Liesch, 2012) serving as a possible explanation on why certain *born globals* mobilize cross-border resources from an early stage (Simões et al., 2015).

#### 2.4. Configuration of value-chain activities in born globals

Despite the significant rise in the number of studies of *born global* companies (Kuivalainen, Sundqvist, & Servais, 2007) there are still many avenues of study that remain unbalanced and disjointed (Jones et al., 2011; Keupp & Gassmann, 2009).

According to Knight and Liesch (2015, p. 98) there is a need for research to “develop novel theories and models to explain how *born globals* create and capture economic value through cross-border entrepreneurial activities”. Simões et al. (2015) identified a similar issue, arguing that one of the problems of recent literature on international entrepreneurship has been the excessive focus on the downstream aspects of internationalization, such as marketing and sales. In fact, upstream activities in international companies have been shown as a relevant way for them to gain a foothold in the global market since inception (Simões et al., 2015), by globally dispersing their value chains to control costs, leverage capabilities (Lorenzen, 2005; Mudambi, 2008) and enhance their competitive advantage by “tapping into multiple centers of excellence and coordinating knowledge across geographic space” (Mudambi, 2008, p. 700).

Nonetheless, most of the studies on *born global* and *international new ventures* (Gabrielsson et al., 2008; Knight & Cavusgil, 2004; Zahra, Ireland, & Hitt, 2000) have only ever considered internationalization as a gradual process, beginning from a single location origin, from which the global markets are then developed (Simões et al., 2015). According to Kuemmerle (2002, p. 99), although there is a rising number of companies being located on different countries from inception to “increase the likelihood of venture success”, these will end having a specific location be considered the “home-base” with greater importance and defending the existence of a “Zone of Balanced Expansion” (Kuemmerle, 2005, p. 45) where the perception of opportunities and

mobilization of resources is done in a local logic that turns regional and global thereafter. Simões et al. (2015) argue that some *born global* companies should instead be viewed as *borderless* (Kuivalainen et al., 2007) while showcasing examples of companies that successfully developed a "configuration of their value-added activities across several countries and regions of the world" (Simões et al., 2015, p. 193) and escaped Kuemmerle's (2005) "Zone of Balanced Expansion".

The study cases presented by Simões et al. (2015) allowed them to create five possible explanations for the development strategy followed by these firms. They view *borderless companies* as being: (i) the result of the combination of geographically dispersed resources and capabilities that defy the home base logic; and as (ii) mixes of design and effectuation, with the value chain's configuration emerging mainly as a consequence of partnerships rather than from deliberate *ex-ante* design. Regarding the entrepreneurial teams they propose that (iii) the more knowledgeable on a specific market at inception, the higher the chance they will rationally combine resources and competences in different locations; and (iv) in the cases of opportunity discovery there will be a tendency to launch the firm faster relying more heavily on emergent strategies to define the location of different value activities. Finally they propose that (v) the more the operations in different locations are relationship-based, less the need for tight coordination and control systems exists.

Although these propositions represent valuable contributions to explain why and how certain companies created competitive advantages from organizing as cross-border entities they have yet to be tested on other firms with similar characteristics, alongside with the role of other variables in international entrepreneurship in leading to *borderless* configurations.

### 3. RESEARCH QUESTIONS

In light of the literature review it is possible to surmise that one of the signs that certain areas of study on international entrepreneurship remain wanting and fragmented is the lack of new theories capable of explaining how certain companies are able to generate and develop value through cross-border entrepreneurial activities (Jones et al., 2011; Keupp & Gassmann, 2009; Knight & Liesch, 2015).

Given that most studies on *born globals* have only focused on the downstream aspects of internationalization while dismissing the questions pertaining to the geographical configuration of capabilities, it becomes increasingly apparent that there is a need to carry forward the research on *borderless companies* and in the characteristics that led to their origin. Therefore, this dissertation's main aim is to help understand how *borderless companies* came to be created and managed and, secondly, what is the role of entrepreneurs and network relationships in the creation and management of these firms.

As such, the research questions for this study are as follows:

Q1: How are *borderless companies* formed and managed?

Q2: How does the entrepreneurial team influence the development of *borderless* characteristics?

Q3: How important are network relationships for the development of *borderless* approaches?

## 4. METHODOLOGY

This work uses a case study approach based on three companies with *borderless* characteristics in order to expand the theory on cross-border entrepreneurship. This section is arranged in five segments. The first presents the chosen empirical investigation methodology. The second offers the investigation procedure followed. The third and fourth deal with the information sources engaged and the techniques used to guarantee information validity, respectively. Lastly, the fifth analyses the results obtained throughout this exercise.

### *4.1 Why Case Studies*

The method of investigation must be consistent with the research objectives in three dimensions: (i) “the type of research questions posed”; (ii) “the extent of control an investigator has over actual behavioral events”; and (iii) “the degree of focus on contemporary as opposed to historical events” (Yin, 2009, p. 8).

Given these criteria and the inquisitive nature of the research questions, a decision was taken to develop case studies, since these are considered the most appropriate method of investigation when intending to answer questions of “how” and “why”, with a limited or inexistent control over events that pertain to a contemporary phenomenon in its day-to-day context (Eisenhardt, 1989; Yin, 2009). Similarly, according to Eisenhardt (1989), the use of a case study methodology is most appropriate in the initial stages of new phenomena research, or to arm the researcher with new views on a phenomenon previously studied.

When compared to other tools of investigation, such as surveys, case studies allow access to a far more diverse set of information. This is largely due to the ability to leverage a large pool of resources, such as news, reports, official company documents,



interviews, among others, thus enhancing the reliability of the information (Eisenhardt, 1989) to reach a deeper understanding of the enterprises' relevant processes (Yin, 2009).

When pertaining to a research with an experimental nature, case studies are employed with the purpose of knowledge expansion and theory generalization (ie. analytical generalization) instead of frequency enumeration (ie. statistical generalization) (Yin, 2009). Such examples include instances where the use of case studies has been leveraged to study new phenomena in the field of international business such as the original works on *international new ventures* by Oviatt and McDougall (1994), on *born globals* by Madsen and Servais (1997) and on *borderless firms* by Simões et al. (2015). Following such instances, the primary objective of this work is to further investigate the concept of *borderless* firms by answering the research questions through the development of case studies of Portuguese companies that fit the aforementioned definition and, hopefully, help expand the current knowledge base on this new type of firm.

#### *4.2 Identifying and selecting the cases*

The decision to address more than one company was established early on. This was designated so that the results might achieve an ampler expression while allowing them be more easily compared, rather than what could be expected with the study of a single company (Yin, 2009). As such, the case studies conducted followed the data gathering techniques established by Yin (2009). According to Miles and Huberman (1994), when choosing the cases there should be four parameters to consider: the target; the actors; the events; and the processes. Their relevance for this dissertation may be seen in Table 1.

Table 1 - Definition of study parameters

Parameters	Description
Target	Portuguese <i>Borderless</i> companies with less than 7 years of activity
Actors	Founding members
	Co-entrepreneurs
Events	Company inception
	Company growth
Processes	Company creation
	Configuration & coordination of international activities
	Development of companies' international activities
	Networking

Source: Adapted from Miles and Huberman (1994)

The list of potential *borderless companies* was developed by taking into account sectorial studies, lists of Portuguese companies enrolled on global startup programs (ie. UTEN Global Startup Program) and by running website searches for startups that appeared to reach a global status early on. This information allowed the development of a preliminary list with the companies' information: names; sectors of activity; year of inception; opportunity that led to their creation; and nationalities of the entrepreneurial team members. This list was then analyzed with a view to select those that seemed most likely to classify as *borderless*. This analysis was based on the following selection criteria: (i) companies with rapid growth and international expansion from inception; (ii) companies which appear to derive competitive advantage from the use of resources as well as sale of outputs in multiple countries; (iii) companies with branches, or headquarters abroad; and (iv) companies whose entrepreneurial team had former international experience.

This process allowed the selection of ten firms that seemed to fit the criteria as potentially *borderless*. These companies were contacted by sending an e-mail and a direct message through social networks to the members of the entrepreneurial teams.

This message mentioned the purpose of the investigation along with a brief description of the concept of a *borderless* company, as well as two questions. The first asked if they thought their company fit the aforementioned definition, and why. The second question asked if they would be willing to receive the researcher to carry out an interview in order to gather further information regarding the emergence and evolution of the international activities of the companies. As a result, five companies responded, of which four thought they fit the classification of a *borderless company*, while one did not. Out the four companies that declared to meet the criteria for being considered as *borderless*, three agreed to an interview while one declined, due to time constraints.

#### *4.3 Data Gathering*

According to Yin (2009) a researcher must bear in mind that the main concern of a case study is the understanding of a certain phenomenon, not its identification. Therefore, in order to avoid possible discrepancies or biases contained within the available information, a method of triangulation (Hurmerinta-Peltomäki & Nummela, 2004, 2006; Jick, 2011; Yin, 2009) was employed using two major sources: public documentation about the companies and interviews with the entrepreneurial or management team of the companies.

##### *4.3.1. Information about the Companies*

Public documentation was found online in several formats, such as written, audio and audiovisual, as well as in magazines and newspaper articles. These documents ranged from interviews directed to the firms' entrepreneurial teams and/or CEO, to news about the firms' development and financial reports. The bulk of this information was then

used to ascertain the *borderless* features of the companies and to construct a growth path since inception, in order to support the conduction of the interviews.

#### 4.3.2. *Company Interviews*

Interviews may be regarded as one of the most widely used methods in qualitative methodologies (Edwards & Holland, 2013) due to their ability to explore the opinions, experiences, beliefs and motivations of individual participants (Gill, Stewart, Treasure, & Chadwick, 2008), therefore enabling the extraction of rich information that may clarify the comprehension of the object of study (Quivy & Campenhoudt, 2005).

A considerable amount of the information gathered for this study stemmed from interviews conducted with the founders and key members of each company, since they were involved in the decision making processes of the companies since inception. These interviews were conducted following a questionnaire first formulated by Hashimoto (2011) on the internationalization, management and growth of *born globals* which was adapted to better fit the purposes of this study (see Appendix A.1). The questionnaire allowed for semi-structured interviews with open questions.

This non-probabilistic sampling technique was intentional since the participants were handpicked to provide a greater significance to the study (Barañano, 2008). The interviews took place during the month of September, 2016 in the companies' premises or through a video conference call. Each interview lasted for approximately 60 minutes, and was recorded and transcribed following an adapted version of Yin's (2009) study case protocol to ensure information validity. The case study protocol can be found in Appendix A.2., while the characteristics of the interviewees of the companies studied may be found in Appendix A.3.

#### *4.4. Information Validity Procedures*

Since the correct interpretation of information is one of the most important elements in this process, a set of procedures was employed when constructing the cases in order to assure the reliability of the information obtained (Yin, 2009). This set of information validity suggested by Yin (2009) centers around four components: construct validity; internal validity; external validity and reliability. The table below contains the techniques used to ensure the validity of the information obtained.

Table 2 - Information validity assurance

Criteria	Techniques employed
Construct validity	Use of different sources of information
	All the information will be reviewed by the interviewees
Internal validity	Pattern identification within the cases
	Explanation of the identified relations between the cases
External validity	Use of replication in the various case studies
Reliability	Usage of a study case protocol
	Archival of all information for each case

Source: Adapted from Yin (2009)

#### *4.5. Analysis of Empirical Evidence*

The cases were written by exploiting different sources, and drawing conclusion based on the facts gathered from these sources. A replication logic was followed to be able to derive case-by-case conclusions whilst allowing the search of patterns within the different cases (Dominginhos, 2007). Lastly, an e-mail request was sent to the interviewed founders and key management members requesting them to review the case studies, as well as to clarify certain points which were not made clear while performing the interviews.

## 5. CASE PRESENTATION

In order to provide a better understanding of the processes that led to the firms' development by the entrepreneurs, a brief presentation of the cases is provided in this chapter. The purpose is to provide a concise background on each company so that a deeper analysis and discussion may be developed in light of the research questions.

### *5.1. Followprice*

Followprice was officially founded in Portugal in February 2015 by João Leitão and three other entrepreneurs. The idea was designed in November 2013 when João Leitão, a civil engineer and founder of a software company, while running a 20% discount campaign on one of his products received a call from a client inquiring when the next campaign would occur. Identifying a need for a solution that enabled clients to be alerted on price changes he developed two slides to showcase the idea. The first captured a screenshot of a popular retail webstore, Fnac Portugal, with a “*follow the price*” button, while the second presented a Facebook page with a notification indicating that the price for that product had a discount.

Next he proceeded to showcase the idea to Vasco Moreira and Gonçalo Mendes, who had a neighboring startup in the same incubator as João Leitão, at Taguspark. Upon realizing the possibilities for a scalable global product when compared with their own company, which developed an interactive fitting room, they decided to drop their venture and join João to pursue this new project. Shortly thereafter another member was invited to join the company to develop the technical features of the solution.

By the end of 2013 the team had contacted close to 200 online stores to test their solution and applied to several entrepreneurship contests. They won the BET Breaking

Tech competition, were finalists in the Start Me Up program and came third in the Acredita Portugal program. In the cases in which the team was not able to leverage existing contacts to test their solution they moved to actively develop them, with Fnac Portugal being an example of this approach. This contact was developed by going directly to the company's office and asking for an interview with the person in charge of online marketing and sales. Being told that they would only be able to meet with the Marketing Director if they had a meeting scheduled, they then convinced the front desk clerk to indicate them who that person was when she entered the building. When the opportunity came they quickly approached that person and pitched their idea which captured the Marketing Director's interest, resulting in the scheduling of a meeting to discuss further details.

By March 2014 the Followprice solution was present in 50 stores and upon closing the deal with Fnac Portugal the team then decided to "trail the country" to showcase the project and to search for investment. Meanwhile the team passed through several startup accelerators such as Startup Lisboa, Lisbon Challenge by Beta-i and the Global Start Up Program at Carnegie Mellon University (CMU). Through the Lisbon Challenge program they met the Beta-i CEO, Pedro Rocha Vieira, whom "*opened doors to make some interesting trips to San Francisco, London, among others and to make roadshows for investors and potential clients*". The CMU program lasted for two months and counted with the participation of co-founders Vasco Moreira and Gonçalo Mendes which allowed them to "*learn with the best*" on various approaches to customer research, product improvement and market fit. Meanwhile, in January 2015, João Leitão secured an investment of €645.000 from Portugal Ventures and LC Ventures. This

investment was mainly used with the purpose of growing the team, the solution and the channels used to reach new customers.

Sensing the need to develop their international sales a group of foreign internationals were hired in Portugal to help sell the solution in their native languages to customers.

Nowadays the Followprice button is currently available in about 400 online shops in over 20 countries with 110.000 users. The volume of sales/exports accounts to close to 50% of the company's business. The solution not only brings advantages to consumers by allowing them to keep track of price changes, but also works as a marketing tool for businesses by letting them know how many customers are interested in their products and providing a channel with which to send specially targeted discounts to certain customers.

With a team of 11 people located in offices in Lisbon, Braga and San Francisco, the Followprice team now intends to deepen sales in French and Spanish markets.

### 5.2. Feedzai

In 2009 Nuno Sebastião, a computer science engineer working at the European Space Agency in Berlin, invited two former colleagues from the University of Coimbra to spend a weekend in London to brainstorm some ideas for his MBA dissertation at London Business School. While discussing possibilities, the trio soon found they had some “*interesting ingredients*” and “*deep technological capabilities in some interesting areas*”. Conceiving a real-time data processing technology, capable of crunching information, enriching and contextualizing it with historical data, through machine learning models capable of inferring knowledge, the colleagues set out to identify markets in which such a tool might be of use. This exercise allowed them to get



*“traction in a number of markets from telecoms to utility but by far where we had the most traction was in the payments space”.*

While both colleagues kept their teaching positions at Carnegie Mellon University and Coimbra University, Nuno Sebastião took a leave without pay from ESA in 2010. Using his own funds, he focused on developing the technology while seeking investment. Capturing seed investment from EDP, Espírito Santo Ventures and Novabase Capital, whom trialed the solution, he then proceeded to assemble the co-founders and launch the business on fraud detection and risk prevention in financial payments and transactions, in September 2011. The initial team was built with help from the CMU-UTEN Portugal program and soon after, in 2012, they went into production with their first client. With a purpose to prove that the team could *“develop a market leading technology”* it was established from the outset to that the company would have to *“work with the world’s best clients”*.

After receiving a Series A investment round in 2013 by SAP Ventures and Data Collective, the company took up an opportunity from SAP to establish its business in the U.S. market. According to Nuno Sebastião this was a critical decision due to the size of the market, ability to secure early adopter customers and available talent that enabled the company to scale its operations. From then, the company went on to grow 300% per year, reaching a volume milestone of \$1 billion transactions processed a day, in 2015. Some of its biggest clients included investor Capital One, First Data, as well as Deloitte, PayPoint, Ericsson, Vodafone, Coca-Cola, SIBS and others. They closed 2015 with \$22 million in sales, 60% coming from the US market. As of 2016 the company exceeded \$2 billion in volume with an average transaction processing time of 2 milliseconds per transaction. The team is now close to 180 individuals with mixed backgrounds, from

PayPal or Visa to Amazon, spread out over the company's various offices. The engineering efforts are focused in Coimbra, Porto and Lisbon while the product development, sales and marketing takes place in New York and San Francisco. Recently a new office was opened in London to focus in the North European market.

### *5.3. LineHealth*

In 2013 Diogo Ortega's grandmother gave her family a health scare by mistakenly taking her husband's medication. Diogo Ortega, a freelancing self-taught software developer and flight attendant, decided to do some research on the number of similar incidents that occur annually. Upon realizing the market opportunity for a solution to tackle this issue, Diogo Ortega, while finishing his BSc in Business at the University of London, participated and won the BPI Appy Day challenge, a 24 hour hackathon that took place on December 2013 where he created and developed the idea to create a mobile app that, when paired with a smart pill-box, assured patients took the correct medication on schedule.

Shortly after he quit his job at TAP Air Portugal and, in February 2014, he formally created the company PharmAssistant and registered the brand, while submitting a utility patent. In April 2014, a journalist friend who had previously incubated her own company at StartUp Lisboa was hired to help him develop the company. The business entered the Lisbon Challenge acceleration program where they recruited two co-founders to design the product and develop the software. During their stay at this accelerator they received an email from a Bayern AG officer, inviting them to apply to an incubation program in Berlin.

On July 2014, the company won the Shark Tank pitch during the Lisbon Investment Summit, raising €50.000 by Bayer and the opportunity to develop the business model directly in Berlin during three and a half months. After returning, the development of various product prototypes ensued and the team decided to shift its attention to the American market, where they saw the greatest potential for growth given the new ObamaCare initiatives taking place. After applying to various incubation programs they entered Bolt, a hardware specialized incubator in Boston, and soon after set an office there to develop the hardware and the business model.

As a result of the work developed with their new partners, a rebranding ensued in late 2015. With the purpose to better showcase the novel medical offers provided by the company, the newly named LineHealth focused on a more “*holistic approach*”. The app now adapted to each patient needs and was compatible with other medical devices, such as blood pressure and glucose meters, as well as pharmacy and hospital software. A reporting function was also built in with both the hardware and software solutions, informing family members and medical practitioners on the intake habits of their patients, while also reminding the patients to take their medication when they are nearby the smart dispenser. In early 2016 the solution began tests in heart attack patients in the NeuroTexas Institute, in Austin USA, a connection provided from the IC<sup>2</sup> Institute (UTEN network) who helped the company with its business development challenges.

As of September 2016, LineHealth secured \$1.000.000 USD in financing with the insurance company Blue Cross Blue Shield and the Baptist Health group. Currently, the U.S. is the main market for the company, with the senior team located in Boston to develop the business model and hardware solutions while the team in Lisbon focusses on software and marketing development.

## 6. CASE DISCUSSION

This section explores and analyses the case studies in light of the research questions. The first part addresses how the firms were created and managed and their fit within the international entrepreneurship literature definition of *borderless companies*. The second part focusses on how the entrepreneurial team influenced the development of *borderless* characteristics. Lastly, the third part centers on the importance of network relationships for the development of *borderless* approaches.

### 6.1. *How are borderless companies formed and managed?*

All three cases show an early intention of its entrepreneurs to target the global market but they differ in their approaches to reach that goal. Starting with the idea's conception, João Leitão (Followprice) and Diogo Ortega (LineHealth) identified arbitrage opportunities in markets in which none had previous experience, setting out to seek new members and enroll in accelerators to fast-track their development. Nuno Sebastião (Feedzai), on the other hand, saw value in the complementary capabilities he and his colleagues accumulated in their professions and sought to first develop the concept and find investors willing to test it. Only after finding a suitable industry in which the technology could flourish, did he assemble a team with his colleagues and officially launch the company in the financial payments market, showcasing an experimental approach to starting his business.

This discovery route is shown throughout the process by which all companies came to configure their international activities. According to Vasco Moreira (Followprice), the drive to internationalize came from the scalability of the project since it “*allowed to be used in any part of the world and to be controlled from this little corner we love*

*called Portugal*". The opportunities to grow their business in the U.S. through CMU and to participate in roadshows with Beta-i's CEO, were leveraged to "*develop a business plan to present investors for approval*" and first grow the national client base. By developing integrations plugins for well-known e-commerce platforms they were able to "*have clients from many countries without much marketing effort and human resources*". International sales were then actively promoted by hiring foreign interns to sell the solution abroad.

The Feedzai and LineHealth cases differ from Followprice in the aspect that the location decision of each of the value chain's activities was not planned in advance but rather the result of individual steps taken. In Sebastião's case the market fit for his solution was influenced by promising results while testing with Espírito Santo Ventures. By focusing on the financial segment he "*set the company by directly searching for the best resources, wherever they were*". This is showcased early by procuring one of the co-founders' CMU research teams, and in having "*an entrepreneurship professor from LBS on our board from day one*". As events happened Feedzai later managed to capture investment from SAP Ventures which extended an offer to help grow the company in the U.S. Given the technological openness and size of this market coupled with Portugal's lack of "*accumulated experience in making the product*", a decision to reallocate the company's operations was made. As Sebastião puts it "*that's why we have the product, business development, sales and marketing outside of Portugal*", keeping only engineering in the place of incorporation were they felt did not "*owe anything to anyone*" but adding that "*we're so distributed that you can't say we have a home base*". LineHealth's case mimics this path. Upon returning from their stay at Bayers' accelerator, the team turned the attention to the U.S. due to its market size and

opportunities for promoting treatment efficiency through the new ObamaCare legislation. They then sought partners in the form of an “*incubator with contacts to help us enter the market and thereby reduce the entry risk*”. With this new structure in place, Lourenço Oliveira (LineHealth) highlights that even though “*there is no home base*”, the founders “*trust that you’ll manage things the way you think is best*”, when referring to the activities in Portugal.

With these cases contextualized we can now assess them by contrasting the literature concerning home *versus* cross border bases and design *versus* effectuation views.

Regarding the first topic, it is clear that Feedzai and LineHealth are not tied to a geographical home base, both having a configuration of activities that integrate cross-border resources and capabilities (Simões et al., 2015). This is contrary to the traditional *born global* view, whereby their places of incorporation are not the R&D location (Gabrielsson et al., 2008). While these companies escape Kuemmerle's (2005) Zone of Balanced Expansion, the same cannot be said of Followprice which, despite establishing an office abroad from an early stage, centralized its core activities in Lisbon. In light of the literature it can be concluded that while Feedzai and LineHealth fit the *borderless company* definition by Simões et al. (2015), Followprice is best described as a *born global*.

The analysis of the second issue yields some interesting results. Both Feedzai and LineHealth’s cases exhibit effectuation approaches characterized by an attitude of affordable loss when starting their ventures (Sebastião by bootstrapping his company, Ortega by registering a patent) (Sarasvathy, 2008), while Followprice’s founders expected returns of the products’ success was the primary motivation for dropping their previous ventures. Despite these differences, further elements of effectuation can be

identified in all cases. In the case of Followprice and LineHealth, the discovery of a market opportunity led the entrepreneurial teams to launch the new venture faster by exploiting their contingencies, while Sebastião's means, namely who he was, what he knew, who he knew (Sarasvathy, 2008) resulted in a more rational combination of the firms geographical resources.

The commitment to strategic alliances and the changes these enacted to the company's original designs played crucial roles consistent with principles of "non-predictive strategy" in an effectuation logic (Wiltbank et al., 2006). In the Feedzai case, the help offered by SAP resulted in the company doubling down on the U.S. market. Conversely, in Followprice's case, the *ex-ante* design of a business plan shows a stricter adherence to a roadmap to entice national investors, leaving few chances for reality to unfold in unexpected ways. The LineHealth case is somewhere in the middle. Although the intention was to market directly to consumers from the outset, happenstance led the team to Bayer's Grants4Apps accelerator. More aware of the opportunities in the healthcare segment, the need for a revision of the initial plan was felt (Sarasvathy, 2008; Simões & Dominginhos, 2006). This led the LineHealth team to actively search incubation at Bolt, where partnerships were developed that resulted in a newfound brand and product offering that better caters the B2B segment in the U.S. (Coviello & Munro, 1997; Johanson & Vahlne, 2006, 2009; Madsen & Servais, 1997). This example suggests that although a mix of both design and effectuation may exist in this case, it is the openness to establish partnerships that ultimately leads companies to a cross-border organization of their value chain activities (Simões et al., 2015.), therefore influencing how they are effectively managed due to these newly developed configurations.

*6.2. How does the entrepreneurial team influence the development of borderless characteristics?*

From the analysis of the study cases it is possible to conclude that the entrepreneurial teams play an important role in the firms' development of *borderless* characteristics.

Starting with the academic background we found that all companies had entrepreneurial teams with highly skilled sets of knowledge (Oviatt & McDougall, 1995). Followprice's founders all had Master degrees (civil engineering, engineering and industrial management, computer science). Feedzai's case goes even further, with Sebastião having an engineering degree in computer science and a MBA from LBS, while the two co-founders have PhDs, namely in computer science and informatics engineering. LineHealth's case involves broader skills, with Ortega starting with a media studies degree and later completing a BSc in business at the University of London. His co-founders have degrees in communication science, product design and computer science.

The previous international experience of each team provides an interesting view on the issue at hand. Both Feedzai and LineHealth's founders had previous international experience gained while simultaneously working and studying abroad. These characteristics are concordant with the literature views on the importance of accumulated international experience for the development of a company's international activities (Dominginhos & Simões, 2004; Luostarinen & Gabrielsson, 2006; Reuber & Fischer, 1994, 1997). While Followprice's team didn't have former international experience, the previous professional experience of the founders influenced the process of opportunity discovery (Oviatt & McDougall, 1995). In Followprice and Feedzai's case this is illustrated in how they came to identify the opportunity. In the former it was



due to Leitão's need to inform his client on the next discount campaign, while in the latter it was Sebastião's trained acuity that enabled him to identify markets where his know-how, and that of his colleagues, could be of value.

It is also worth highlighting the importance of the entrepreneurs' ambition to the configuration of the companies as *borderless* (Andersson et al., 2004; Oviatt & McDougall, 1995). According to Sebastião, at inception Feedzai decided to "*make one thing, but we'll be the best in the world, and everyone will know we're the ones doing it*". This drive is symbolized in the company's "*grit, grit, grit*" motto and is further reflected in its unofficial "*mutt dog*" mascot that represents the high number of nationalities that his team nowadays employs. According to Sebastião "*the team that works here in the U.S. are all immigrants in the sense that they came here to study or other (reasons)*". He further develops that they all share a "*need to prove so much that they never take anything for granted*" and identifies that this "*hunger, resilience and work ethic*" is "*an extremely American and important thing to have when one is starting a company*". LineHealth's founder also showcased a similar entrepreneurial drive: although still employed as a flight attendant he kept "*freelancing as a programmer*" while "*always searching for a business idea to dedicate himself to*".

It is also pertinent to emphasize that the founders' business vision at inception is crucial when choosing to address the global market (Madsen & Servais, 1997). This is shown by Feedzai's founders in their "*need to prove we could develop a market leading technology... that's only possible by working with the world's best clients*". Regarding the wrong intake of medication that led to the creation of LineHealth, Oliveira expresses that "*we knew this was a global issue and that we couldn't limit ourselves to a market as small as the Portuguese*".

6.3. *How important are network relationships for the development of borderless approaches?*

Network relationships have been shown to play important roles towards rapid internationalization (Falahat et al., 2015; Zain & Ng, 2006). Next, a discussion of their decisiveness regarding the firms' development of cross-border activities will follow.

In the case of Followprice, Moreira envisages network relations as being important to “open leads and opportunities”, “hear feedback from influent people to the business” and to “spread news farther”. LineHealth's Oliveira shares a similar perspective, highlighting the benefit to “better understand the market” by “sitting with partners and hospitals” and that “when you have a network that supports your product... as soon as you develop it and have it for sale, many will be future clients”. Sebastião goes even further, stating that “20% of a company's success comes from the product... the rest comes from networks” and that firms are “part of an ecosystem” that one “must work every day to keep fresh and relations warm to be able to leverage them”. These examples showcase how network relationships serve as knowledge sources on external markets (Ellis, 2000; Madsen & Servais, 1997).

Network relations also proved a crucial factor in the choice of the first country to approach (Coviello, 2006; Coviello & Munro, 1997). While in Followprice's case the U.S. market approach came from the “network created through Carnegie Mellon”, Moreira adds that “this was a country that we were after”. Both Feedzai and LineHealth show that their internationalization choices were more heavily influenced by their network relationships with investors. In the former, Sebastião states that “the relations we had with our investors, and the relations they had with their clients lead us to work faster with certain clients than with others”. This is well represented in Feedzai's

history as showcased by SAP's offer to help the company move to the U.S. In the latter case, the choice of LineHealth's team to move to Berlin came from early funds secured with Bayer.

The cases similarly show that network relationships were used in different degrees as a way to reduce the risk of foreign market entry (Johanson & Vahlne, 2006; Zain & Ng, 2006) and overcome resource shortages (Mort & Weerawardena, 2006; Simões & Dominginhos, 2001). LineHealth's motives to enter the U.S. market through incubation at Bolt concern these points directly. In Feedzai's case, Sebastião makes note of stating the importance of having "*amplifiers that take your product and multiply it by 10, 100 or a 1000, something that you, on your own, wouldn't have dimension, scale or capacity to do*". While such patterns were not observed in Followprice's internationalization path, network relationships did prove useful for them in establishing local partners (eg. their first clients).

Lastly it is important to underline the role that unforeseen network relations had in leading Feedzai and LineHealth to a *borderless* configuration. If it were not for SAP, Feedzai might never have moved to the U.S. while LineHealth might never have split its hardware and software activities without investor's advice while incubating at Bolt.

Even though some events shall inexorably be left out of the control of these firms, they still actively try to develop their network capabilities (Falahat et al., 2015). Currently, Feedzai is organizing a machine learning event where they "*managed to group the best minds from fintech companies*". In LineHealth's case, while still "*investigating the insurance market*" they are already "*going to events to meet with insurance companies*". With these examples in mind we may then surmise that network relationships play key roles in the development of *borderless* approaches.

## 7. CONCLUSION

The purpose of this section is to present this research study's conclusions, contributions to the theory, limitations and suggestions for future research.

### *7.1. Results and Contributions to the Theory*

This study's triggering factor trails the inconsistencies found in literature regarding *international new ventures* and *born globals*' international configuration of activities.

While an answer on why certain firms are better characterized as *borderless* has been proposed by Simões et al. (2015), a need was felt to further understand how *borderless companies* are formed and managed, as well as the importance of the entrepreneurial team and network relationships for the development of *borderless* approaches. Thus, three case studies were conducted on Portuguese firms that seemingly fit the *borderless* definition. While two proved *borderless*, one was found to correspond to a *born global*.

The analysis of the cases allowed us to identify that, in the *borderless* cases, the location of activities was not planned but was rather the result of individual steps while fine-tuning the business opportunity. While all three firms showed elements of effectuation in their approaches, the *borderless* showed stronger ties with the elements of affordable loss and non-predictive strategy. Furthermore, previous international experience and the stressing of partnerships were identified as key factors in explaining how they organized as *borderless*.

The entrepreneurial team was identified as a crucial element for the development of *borderless* structures. In these, the entrepreneurial team showed a wide set of competencies and sizeable prior international experience. Additionally, the founders' ambition and business vision were found to be key factors leading to *borderless* configurations.

Lastly it is possible to assess that network relationships played a key role in the choice of the first country where *borderless* firms developed their value-chain activities and were used by them to reduce entry risk as well as to leverage limited resources. These firms also showed awareness of the vital role of network relationships and actively tried to grow them.

### *7.2. Limitations and Future Research*

The present study has its own limitations. Given that the three companies studied belonged to different industries it would have been desirable to have had access to other industry specific cases, as well as a larger sample of *borderless* companies. Due to time and access constraints, the primary means of data gathering were interviews with entrepreneurs of the companies. Two interviews were performed using videoconference calls while the other was carried out at the company's headquarters. In the former cases it would have been preferable to perform them in person. In one case, the interview took place with the head of business development who, although being a highly informed party on the company's history and the founders' personal characteristics, was not a part of the team from inception. In all the cases it would have been desirable to perform multiple interviews with other co-entrepreneurs to ascertain broader viewpoints.

Regardless of these limitations, this study shows there are still avenues worth exploring in *borderless companies* research. Future studies could delve more deeply and extensively on some issues approached in this study, such as the role of informal management cultures. While developing this study it was observed that incubation programs led the *borderless firms* to foreign partners that ended up defining their value chain configurations through the support provided. This subject could be further studied as a catalyst for the development of entities with cross-border activities.

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## APPENDICES

### *A1. Case Study Questionnaire*

The following questionnaire was adapted from Hashimoto's (2011) in order to better fit this study's objectives.

- 1) Background Information (asked only when not previously known).
  - a) Can you describe how the firm was founded and who was involved?
    - i) When exactly was the firm founded? (When did you first start thinking of it)
    - ii) How was the market opportunity that led to the firm's establishment identified? How did the idea for the company arise?
    - iii) In what fashion did this discovery speed up the company launch process?
    - iv) How did you develop the product/service and find the market/customers for it?
  - b) What has been the development of the firm in sales revenue and in number of employees since inception? (Can you share statistics?)
  - c) Was there any *ex ante* growth strategy present or was it developed as the firm grew? In other words, when you created the firm, did you already have an international market in mind?
  - d) What are the most important physical resources (equipment/plant), intangible resources (experience of people, brand name, innovative human resources), and financial resources (internal and external)?
  - e) What are the core competencies of the firm regarding technology, marketing and management?
  - f) Did you internationalize before or after consolidating your position in Portugal?
- 2) The following questions concern the internationalization process of the firm.
  - a) What was the main reason for internationalizing the firm?
    - i) When and where did the firm internationalize? What was the main reason for going to this country?
  - b) When you internationalized your company did you have in mind the risk associated with this process?
  - c) In your view, what has been the most critical decision made towards internationalizing the company? When did this occur? Why?
  - d) Have you internationalized your value chain activities? When and where? What was the main reason?
  - e) Can you share some information on how your value chain is configured in both upstream and downstream activities?
    - i) Are these activities internationalized?
    - ii) Which of these is more critical to the success of your firm?

- iii) Do you think you derive significant competitive advantage from the configuration of your value chain activities? Which stage is more important?
  - f) How do you control and coordinate your international activities? Are you more dependent on specific control systems or on relation based systems?
  - g) What is company's main market?
    - i) Is there any special characteristic in this market for the success of the company?
    - ii) Would you say you service a global market or that there is a stronger emphasis on a certain foreign market? If so, please describe how and when did this become obvious.
    - iii) Since you're such a young enterprise, how did you assure credibility with your clients?
  - h) Which countries do you intend to approach in the future?
  - i) Can you share some information on the growth of international sales since establishment? (3rd year, 6th year, now).
  - j) What would you say is the international expansion logic followed by the firm?
    - i) Which internationalization methods has the firm adopted? (Exporting; Licensing; FDI)?
    - ii) How have the foreign operation modes developed since establishment? Has the product offering changed to a specific market?
    - iii) Would you say the company is reliant on a "home-base" to coordinate the activities in different geographies?
- 3) Concerning network relationships:
- a) Please describe your relationships with suppliers, customers, competitors and other important contacts. How good is the firm at building networks and leveraging them?
  - b) Does the company have international partners?
  - c) How are the company's network relationships composed?
    - i) Do you think these are tied to the characteristics of the entrepreneurial team individuals?
  - d) In your opinion, what are the main advantages related to the creation of network relationships?
    - i) Please share some examples concerning the creation and management of network relationships in your company.
  - e) How important are network relationships to the success of the internationalization process of the company?
  - f) Did network relationships contribute to the choice of which countries the company should internationalize?
    - i) How have these influenced the international configuration of your value chain activities?



- g) How important is customer reference and credibility? In which development stage were customer references most important?
  - h) Describe how the ability to renew network relationships has impacted your firm's establishment and growth.
- 4) Regarding the profile of the entrepreneur:
- a) What is the academic education of the entrepreneurial team?
  - b) What is the professional experience of the members of the entrepreneurial team? Did they possess some previous international experience?
  - c) In what ways did previous professional experience influence the success of the company?
    - i) In what ways did international contacts influence the establishment of the company? How about the success of the firm?
    - ii) Did the entrepreneurial team possess some previous knowledge of the markets approached?
  - d) Various authors regard entrepreneurs as the most valuable resource a young company has. Do you agree?
    - i) Which characteristics do you consider most valuable to the success of a company in successfully internationalizing its activities?
  - e) How would you characterize the firm's culture in terms of experimenting with new initiatives and taking risks in failing?
    - i) Is the selection criteria for new initiatives based on expected returns, or, on affordable loss?
    - ii) What is the firm's attitude towards failure when implementing initiatives?
    - iii) Is your firm proactive to emerging opportunities, or does it settle more in the role of a follower? Does the entrepreneurial team reflect this view?
    - iv) Do you try to predict future developments by analyzing current market opportunities or do you try to create new markets using the resources available at the time?
    - v) What kind of hierarchies, bureaucracies or other established practices and traditions does the firm have? How do these influence the management of your international activities?
    - vi) How good is the firm in rapidly adapting to changing market conditions?
- 5) Are there any materials describing the creation and consolidation process of the firm you might share?
- a) Is there something important I might have forgotten to ask about how the company created and sustains its international configuration of activities? What about the entrepreneurial team's capabilities and network relationships?

### *A2. Case Study Protocol*

A study case protocol including the instruments used, rules and procedures was employed during the research phase (Yin, 2009), shown in table A1.

Table 3 - Case study protocol

Task	Actions to take	Performed activities
Case selection	Companies selection criteria	Portuguese companies with rapid growth and international expansion;
		Possess an entrepreneurial team with an international background
		Leverage resources from multiple international geographic zones in both upstream and downstream activities
		Fit the classification of <i>borderless company</i> (Simões et al. (2015))
		Possess branches or headquarters abroad
	Contact with companies	E-mail request for cooperation, followed by a contact through social networks
		Submission of work objectives and necessary materials
		Approval of companies for publication of their names in the study
		Scheduling of interviews with the entrepreneurial teams of the companies that accepted the request
		Solicitation of further information that they might deem relevant to answer the studies' research questions
Information Sources	Information gathering	News search in journal articles; web articles; television spots and the internet of successful Portuguese startups.
		Website search of selected companies
		Access to internal reports of the companies
		Development of questionnaire with the necessary questions for the creation of the case studies and confirmation of the material found in public documents
Case study construction	Timeframe	Information collection started in March 2016
		Interviews took place during the month of September 2016
	Data preparation	Construction of the first case study based on both secondary and primary sources
		E-mail message sent to the first company interviewed in order to clarify certain interview points
		Construction of the second case study following the same logic of the first
		E-mail message sent to the second company interviewed in order to clarify certain interview points
	Data analysis (Inductive-Deductive)	Search of common patterns among the cases
		Analysis of common patterns based on literature review
		Analysis of differences between the cases
	Case study discussion	Case discussion was based on the data acquired in the interviews built upon the performed literature review
Others	Provide feedback	Delivery of finalized case studies for respondents approval

Source: Adapted from Yin (2009)

*A3. Case Descriptions*

Table 4 - Selected characteristics of interviewees

<b>Interviewees' Characteristics</b>	<b>Followprice</b>	<b>Feedzai</b>	<b>LineHealth</b>
Entrepreneur	Vasco Moreira <i>Chief Marketing Officer</i>	Nuno Sebastião <i>Chief Executive Officer</i>	Lourenço Oliveira <i>Head of Business Development</i>
Nationality	Portuguese	Portuguese	Portuguese
Academic Background	Engineering and Industrial Management (BSc and MSc)	Computer Engineering (BS) and Management (MBA)	Political Science (BSc) and Development Economics (Msc)
International Experience before company foundation	No	Germany, U.K.	France, Brazil, Argentina
Specific industry experience	No	Substantial	Substantial

Source: Adapted from Simões et al. (2015)

Table 5 - Case descriptions

<b>Company Characteristics</b>	<b>Followprice</b>	<b>Feedzai</b>	<b>LineHealth</b>
Industry	E-commerce	Fintech	Healthcare
Inception year	2015	2011	2014
Countries of origin of entrepreneurial team	Portugal	Portugal	Portugal
Countries of origin of relevant partners	-	U.S., U.K.	U.S., Germany
Location of value activities	Headquarters	Portugal	U.S.
	R&D /Design	Portugal	U.S.
	Production /Operations	Portugal	Portugal
	Distribution & Sales	400 online shops	U.S; U.K.
	Marketing	Portugal	U.S.
Number of markets	20	11	3
Main market	Germany, U.K., U.S.	U.S.	U.S.

Source: Adapted from Simões et al. (2015);

n.a. = not applicable

*A4. E-mail templates sent to prospective companies*

*English version*

Subject: Collaboration request in International Entrepreneurship investigation [MSc Thesis - ISEG]

Dear [Insert name of person],

I'm currently developing a dissertation on a new type of companies titled Borderless at the Lisbon School of Economics and Management (ISEG) for the master's degree in Management and Industrial Strategy.

We define Borderless Companies, as companies that internationalized from inception, leveraging resources from different international geographical areas and who tend to not exclusively rely on a home-base, in their country of origin, to coordinate their activities.

Having taken into account the success and unique characteristics of [Insert company name] I would be most grateful if you would be willing to help me develop this project through your cooperation.

In this sense, I'd like to thank in advance an answer to the following questions:

- Do you think [Insert company name] fits the definition of Borderless? Why?
- Would you be willing to schedule an appointment in order to ascertain further information regarding the formation process of the company, international activities configuration and the entrepreneurial team characteristics?

Finally, I'd like to add that your data will be treated with the utmost respect and confidentiality and only for academic purposes.

Thank you for your time and cooperation,

With warm regards,

--

Gonçalo Martins

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If you have any questions regarding this study, please feel free to contact any of the alternative addresses:

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- Professor Vítor Corado Simões (Thesis advisor): [vcs@doc.iseg.pt](mailto:vcs@doc.iseg.pt)