

ENTREPRENEURS AS DISCOVERERS: THE CASE OF PORTUGUESE BORN GLOBALS

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ABSTRACT

Traditionally, internationalisation has been study has a gradual process, where the firms start their operation to close markets with forms involving low risk. As time goes by, and the firm acquire experiential knowledge, the firm change his commitment to internationalisation, using more risky and demanding entry modes, and acting in distant markets. In the nineties, several firms, labelled born globals, challenge this pattern, operating, since inception, in international markets, start in distant markets and using hybrid entry modes, as alliances, licenses and franchising. This paper, through four in depth case studies, of Portuguese born globals, shows that entrepreneurs act as discoverers and are the key element in understanding this phenomenon. It also shows that prior knowledge corridors are crucial for entrepreneurs, in his process of discovery and exploitation of opportunities.

Key words: born globals, international entrepreneurship, Portugal, entrepreneurs, discovery

INTRODUCTION

International entrepreneurship only recently has received more attention from researchers (McDougall and Oviatt, 2000). These two fields of knowledge seem to be divorced, until the nineties. The researchers in international business look to the internationalisation process, while others researchers look to entrepreneurship, without the concerning of matching the two. In a special number of the Academy of Management Journal, dedicated to International Entrepreneurship, McDougall and Oviatt (2000: 903) define the domain “*as a combination of innovative, proactive, and*

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risk-seeking behaviour that crosses national borders and is intended to create value to organization". This definition opens several avenues of research, from cooperative alliances to exporting and other market entry modes, from entrepreneur characteristics and motivations to corporate entrepreneurship, and so forth.

In entrepreneurship, there isn't a consensual domain of action (McDougall and Oviatt, 2000; Shane and Venkataran, 2000; Venkataran, 1997), and the phenomenon has been studied from a variety of perspectives. For our purpose, in present paper, entrepreneurship "*seeks to understand how opportunities to bring into existence future goods and services are discovered, created, and exploited, by whom, and with what consequences*" (Venkataran, 1997: 120).

Internationalisation has been associated with process model developed by Johanson and Vahlne (1977), also known as the Uppsala model. It explains internationalisation as a process of acquiring experiential knowledge that acts as a decision-making catalyst for the commitment of additional resources to international markets. International company development tends to be gradual, following a pattern of growing psychic distance, and based on the organic growth. As a result of "lateral rigidity" of managers, the start of the process is slow and reactive, often as a response to external orders (Luostarinen, 1979). Furthermore, assets on which ownership advantages are based are usually located in the domestic market, internationalisation being envisaged as the exploitation of the competitive advantages provided by these assets (Cantwell and Narula, 2001; Doz, Santos and Williamson, 2001). Additionally, the process approach overlooks the possibility of individuals making strategic choices (Reid, 1983, Turnbull, 1987).

In the last ten years, however, a number of studies have shown that a growing host of companies were involved in international markets from their beginning (Andersson and Wictor, 2001; Autio and Burgel, 1999; Autio, Sapienza and Almeida, 2000; Bell, 1995; Coviello and Munro, 1997; Crick and Jones, 2000; Knight and Cavusgil, 1996; Jones, 1999; Madsen and Servais, 1997; McAuley, 1999; Oviatt and McDougall, 1994, 1995 e 1997; Rennie, 1993; Simões and Dominginhos, 2001; Yli-Renko, Autio and Tontti, 2001;). This strand of research includes examples from several countries; in sectoral terms, however, it is almost exclusively focussed on new

technology-based firms (NTBFs). Their findings challenge the traditional Uppsala approach. In fact, they show companies to behave in a way that contrasted with Uppsala suggestions. In particular, those companies did not follow the incremental, gradual pattern of international expansion, some of them being born already with a worldwide perspective, having no single 'lead' market (Hamel, 1995). Simultaneously, they use different sorts of approaches to international activities, including a significant reliance on cooperative arrangements, while their internal organization is characterized by less hierarchical structures.

Rennie (1993) called these firms *born global*, Oviatt and McDougall (1994, 1995) adopted global start ups and international new ventures. In present work we use the label suggested by Rennie, although there seems to be no agreement, so far, on what a *born global* is. Several studies use the percentage of export in total sales in the first two or three years to define a born global, independent of others entry modes or the psychic distance of markets served. In this case, the only relevant difference regarding Uppsala model is time of entry to international markets, that one can say that relies more in external factors to firms, as liberalization of markets, decreasing transport and communication costs, technological evolution, desegregation of some industries, international experienced human resources, and less in factors inherent to firms and their strategies. Additionally, this definition continues to look to competitive advantage as national made and build, assuming that firms can find all relevant resources in national markets. But if we look to the cases studied in the papers referred above, the majority comes from intensive knowledge industries, where the relevant knowledge is dispersed across the world (Doz, Santos and Williamson, 2001).

To overcome these difficulties, we use the concept provided by Andersson and Wictor (2001: 5) who define born globals as "companies that have reached a share of foreign sales of at least 25% within three years after their birth and, from inception, seek to derive significant competitive advantage from the use of resources and the sales of outputs in multiple countries".

The aim of the present paper is to present a perspective that matches the literature on entrepreneurship, namely "why, when and how opportunities for the creation of goods

and services the future arise” and “why, when, and how some are able to discover and exploit these opportunities while others cannot or do not” (Venkataram, 1997:120-121) and “what happens when entrepreneurs act?” (Andersson, 2000; Schumpeter, 1934) with the phenomenon of born globals, contributing to the complementarities among existing frameworks, rather than ignoring some and privilege others. Concretely, we will look to born globals from an entrepreneurial perspective, exploring how these opportunities were created², and the role of entrepreneurs in international behaviour of the firms. We will test it through the application to four case studies of Portuguese *born globals*. One of our main contributions will be to extend the analysis to firms in traditional sectors, such as footwear, and not to concentrate on NTBFs only. Without challenging the fact that the phenomenon is most widespread in high-tech industries – such as electronics, software, biotechnology, and medical instruments –, we contend that it also affects traditional industries, opening new possibilities for the international expansion of firms from countries like Portugal with a tradition of exporting more “mature” products.

The paper is organised in seven sections including this introduction. The second provides a revision of the literature on internationalisation process, particularly on *born globals*, and on entrepreneurship. From this process we will derive some propositions, in the third. In the fourth one, the methodology is presented. Then, a brief description of the four cases studies is provided. These will be confronted with proposition and discussed in detail in the sixth section. The paper closes with the conclusions and implications for further research.

LITERATURE REVIEW

Entrepreneurship

The study of entrepreneurship relies on two fundamental premises (Venkataram, 1997): one associated to Kirzner (1973, 1997) and concentrated on the imperfection of markets, where the opportunities are discovered and exploited by some individuals that identifies such inefficiencies, and the second one associated to Schumpeter (1934) with the *process of creative destruction*, where the change and the disruption

² We assume that these opportunities are exploited by the launching of start-ups, recognising, however, that entrepreneurs have others choices in exploring those opportunities.

of equilibrium is a constant, which implies that analyse the consequences of entrepreneur's action is fundamental.

The classical approach (Khilstrom and Laffont, 1979) to entrepreneurship assumes that maximizing agents composes the markets, which implies that no one can discover a misalignment that would generate entrepreneurial profits. In this view, one can say that the main objective is to allocate resources (Sarasvathy and Venkataran, 2002), where there is no space to new opportunities. In this perspective, information is randomly distributed, which means that everyone could be an entrepreneur and identify the same opportunities.

However, Hayek (1945) strongly disagree this premise, arguing that individuals that don't share the same information and knowledge, not only the scientific, but also the day-to-day knowledge compose markets. Some entrepreneurs have advantageous network positioning, from which advantages accrue. As Von Hippel referred (1994) information is often *sticky*, which means that it is only available to that individual who contact directly with users. Additionally, in order to be useful, some knowledge often demands complimentary resources (Shane, 2000; Venkataran, 1997). Assuming these two premises, not everyone can discover the same opportunities. Imperfections in information sharing and distribution will lead to a process of discovery (Sarasvathy and Venkataran, 2002) on entrepreneurial opportunities. This means that entrepreneurs cannot discovery all possible opportunities, which means that is impossible to maximize between alternative opportunities as postulated by classics.

Simultaneously, this requires a process of guessing on each other's expectations on several issues (Kirzner, 1973). This process allows the individuals to identify *errors*, contributing to the discovery of entrepreneurial opportunities. In this process of discovery and exploitation of opportunities, *alertness* and *surprise* (Kirzner, 1973, 1997) and creativity (Schumpeter, 1934) play a distinctive role among entrepreneurs.

The previous discussion allows us to answer the question how and why some opportunities are discovered and how and why some entrepreneurs did it and others not. Schumpeter (1934) defines entrepreneurs as individuals who is carrying out entrepreneurial actions. In his thought, acting is crucial to entrepreneurs, where his

action dominates rational calculations. In this sense, it's relevant to understand what happens when entrepreneurs act.

Internationalisation and Born Globals

Analysis of the process of internationalisation grew from the seminal work of the Uppsala school (Johanson and Wiedersheim-Paul, 1975; and Johanson and Vahlne, 1977) about the internationalisation of Swedish firms. They focussed on industrial firms from sectors that were not particularly high technology intensive. At that time, the competitive environment was characterized by the strong regulation of commercial and capital flows and direct investment that limited the role of international operations. Furthermore, international communication and transportation systems were less developed, contributing to a lower knowledge about external markets and to an increased perception of psychic distance. International expansion of firms into external markets was found to be an incremental process, both in terms of the time need to penetrate external markets, and in the resource commitment in these markets. As Madsen and Servais (1997) put it, expansion was from near and psychologically closer to more distant countries like "rings in the water". Outward activity was found to enable the acquisition of experiential knowledge which reduced uncertainty and performance risk, leading to an increase in the resource commitment in these markets. Later on, Johanson and Vahlne (1990) extend their approach to incorporate the importance of networks in internationalisation process

The international growth of several NTBFs and of firms such as MTV, Acer or Body Shop raised doubts about the appropriateness of the Uppsala model to explain more recent internationalisation moves, in an increasingly globalised world. A new breed of firms, mostly from the new technology intensive industries was found to emerge. These are characterised by instant internationalisation, operating in international markets very early in their life cycles or even since inception. Researchers are paying increased attention to these born global firms: the role of the entrepreneur has appeared as a decisive factor in the explanation of this phenomenon (Andersson and Wictor, 2001; Crick and Jones, 2000; McAuley, 1999; McAuley, 1999; Oviatt and McDougall, 1995; Simões and Dominginhos, 2001; Teixeira, 2000;). In most cases, entrepreneurs are strongly outward-minded: they know external markets either from working for multinationals through being placed in export departments or through

experience abroad; they are people who have high-level academic qualifications, and speak foreign languages; and they maintain a network of extensive and intensive international contacts. From the beginning these characteristics provide them with the knowledge about external environments needed for an aggressive and quick entry in international markets. Market entry does not follow a pattern based on geographical distance, but rather it follows the entrepreneur's network of contacts (Crick and Jones, 2000); Coviello and Munro (1997) pointed out the relevance of networking in international reach; Crick and Jones (2000) referred to competence development through the involvement in international problems, as well as to the importance of entrepreneurs' relational capital in shaping internationalisation patterns; and Autio, Sapienza and Almeida (2000) suggested that born globals can escape to rigidities due to a long reliance on domestic markets, creating an international perspective since the beginning.

The relational nature of many of the activities developed by entrepreneurs and by their companies also helps explain the emergence of *born globals*. Moreover, the specific nature and scarcity of resources makes participation in cooperative networks almost unavoidable, with university cooperation, placements in science and technology parks, as well as forming partnerships in international programmes promoted by the European Union being of particular relevance (Fontes and Coombs, 1997; Crick and Jones, 2000, Simões and Dominginhos, 2001). Previous studies have dealt with small and medium sized companies (SME's) concentrating on sectors where the resource needs for R&D are high and in which innovation is central for survival, so the establishment of cooperative agreements or participation in networks with complementary resources or access to markets is crucial. It is also important to emphasise the specific nature of the goods or services that are produced and/or commercialised by these firms. Frequently, the disentangling between the product and the service components is very difficult, due to the high level of customisation, with an individual response to each client; this may lead firms to go after the clients or to "project" outward those relationships that were established in the internal market (Coviello and Munro, 1997; Simões, 1997c). Such relationships also lead to gaining a reputation, an indispensable resource in sensitive sectors where confidence building is crucial for establishing a business worldwide.

PROPOSITIONS

As the Austrian School postulates (Kirzner, 1973, 1997) entrepreneurial opportunities can arise because people possess different information, which implies a process of guessing on each other's beliefs. Internationalisation is a consequence of firm's strategy, and as (Mintzberg and Waters (1985) arguing, strategy is a "pattern in a stream of action". In several cases, entrepreneurs provide this stream to action into international arena (Andersson, 2000), acting as champions and leading their companies through new products, new markets or new business concepts. In born globals, we are talking about entrepreneurial firms, extremely dependent on entrepreneurs wishes, strategies and resources, acting from inception in international markets. Born globals firms can be understood as an entrepreneurial opportunity, as a new combination of resources, founding in knowledge dispersed across the world, and explored, commercially, worldwide. This identification and exploitation requires information and his interpretation that is not shared by everyone in society. So, the entrepreneurs are the key element in this process. The above argument leads to the following proposition:

Proposition 1: Entrepreneurs, in born global firms, will influence decisively the process of entrepreneurial discovery and the decision to act, since inception, across the world

Because information asymmetry is relevant to the process of discovery, people tends to discovery opportunities that are related to the information that they already possess. In this case, prior knowledge of entrepreneurs is relevant to understand the identification and exploitation of opportunities. Each entrepreneur has his "knowledge corridor" that allows him to discovery certain opportunities (Shane, 2000; Venkataran, 1997) and, because the exploitation of such opportunities demands complimentary resources, this web of knowledge is fundamental in subsequent phases of the entrepreneurial process, acting as an accelerator for entrepreneurship (Doz and Williamson, 2002). These corridors include work experience, education, personal networks. This relational capital increases the competences of entrepreneurs in: identifying some misallocation of resources; interpret the information; discover alternative use for resources; recombine the knowledge. Shane (2000) identifies three areas where prior knowledge is fundamental: which markets to serve, how to use a new technology to serve a market and the discovery of products and services to

exploit a new technology. For born globals, previous knowledge is one of the triggering factors that explain why this firm acts, since inception in international markets. From the previous discussion the third proposition is suggested:

Proposition 2: *Entrepreneur's previous knowledge will influence the way to serve markets, the choice of markets, the choice of partners and the products and services to serve the markets and customers.*

METHOD

As far as we know, this is the first study specifically focussed on Portuguese *born globals*. Interesting research exercises have been carried out on the neighbouring field of NTBF internationalisation (Fontes, 1996; Fontes and Coombs, 1997; Teixeira, 2000; Teixeira and Laranja, 2001). However, they focussed more on NTBF behaviour than on internationalisation processes as such. Therefore, there is a need to open new avenues of research, specifically concentrated on *born globals*, but not just on NTBF *born globals*. We are thus undertaking an exploratory approach. In fact, this is more appropriate for studying a phenomenon, which, at least in the Portuguese setting, has been so far little researched or analysed (Ghauri, Gronhag and Kristianslund, 1995; Eisenhardt, 1989).

The main criteria for the choice of case studies was the inability of the theory in use to explain internationalisation moves (Eisenhardt, 1989). The companies studied followed a pattern and exhibited an international behaviour very different from either most Portuguese firms or even their Portuguese competitors in the same industry. Furthermore, there is a need to contrast the more common breed of *born globals* – that is, NTBFs – with less researched cases of *born globals* in traditional industries. The aim is not so much that of contrasting “polar” cases (Eisenhardt, 1991), but rather to see whether “the idiosyncratic detail can maximise our theoretical insight”, as Vaughan (1992: 175) suggests. The four cases studied may be envisaged as collective cases (Stake, 1994), allowing us to identify the paths followed by firms in their internationalisation processes and the main factors behind taking those paths. Therefore, these explanatory cases are expected to lead to a better understanding of the *born globals* phenomenon. More specifically, this exercise is aimed at

contributing to improve and specify the theory in use concerning internationalisation processes (Eisenhardt, 1989; Yin, 1994).

The four cases selected for research concern companies which exhibited swift internationalisation processes, with foreign sales reaching 25% of total in a period of three years after creation, and following non conventional profiles regarding markets and modes of operation. Three cases refer to a knowledge-intensive industries – software and microelectronics –, while the other is from a traditional industry – footwear.

Information was collected in two ways. Direct discourse with entrepreneurs was accomplished through two round tables organised to discuss the issues associated with internationalisation, in March and September. To triangulate the information (Yin, 1994) several indirect sources were used, including newspapers and specialised journals, the ANETIE website³, and companies' official documentation, including the websites. Special attention was given to the interviews granted by the people responsible for internationalisation in the companies concerned. Previous academic research on the firms was also scrutinised. Differences between sources were checked and subject to further analysis.

CASES

The presentation of case studies will be brief, recognizing that there is a lot information making it difficult to summarize. Each case will be discussed in two ways. The first is a description of the firm's activities, particularly the underlying reasons for its creation, the first steps of internationalisation, the forms of operation used and the markets entered. The second will be an explanation of the reasons for such behavior.

Altitude Software

In 1999 the company was officially set up with the name of Altitude. However, it has earlier roots, dating back from 1987, when the entrepreneur Carlos Quintas created

³ ANETIE is the National (Portuguese) Association of Firms from Information Technologies

another software company with the support of a financial organization. Mr. Quintas business experience came from working for various computer technology firms. In 1993, the Portuguese subsidiary of Alcatel invited the company to develop software for automating the collection of invoices. The entrepreneur, seeing that there was a small but growing segment of an emerging market, developed software for the management of call centers. Although the software was initially developed for the Portuguese subsidiary and for the Brazilian market, IBM also became a client. This was the first step in the internationalisation of the firm, which managed to attract clients in Japan and USA.

The election of the software package as "product of the year" in 1997 by the North American magazine *Computer Telephony*, attracted US venture capital, bringing an investment of around 5 million Euros from Insight Capital Partner. This enabled the company founder (and the management team) to carry out a wider and more committed internationalisation strategy. Easyphone reputation increased considerably when Sidney Olympiads chose the company as supplier software for call center management. Its customer portfolio includes now firms like Coca-Cola and Shell.

In 1999, the company changed its name to Altitude, a word which has a similar meaning in many languages. This change was accompanied by an innovation that was central to foster the international growth of the company: the development of the concept of "Unified Customer Interaction" (UCI), which enables companies to manage all their contacts with clients using different types of support, including voice, e-mail, e-wap and the web. This package continues to be a unique product at a global level, giving the company a difficult-to-imitate advantage. Altitude innovation capacity was reinforced by a strong investment in R&D. The R&D department, based in Portugal, now accounts for around one third of the company's 400 workforce.

These developments led to a rapid growth in sales: (from 1 million euros in 1995 to 36 million in 2001), mostly based on external markets, which represent 82% of total sales. Altitude is now operating in 44 countries, from USA and Canada, to Japan and Australia, served mainly through software licenses. To support and enhance its international strategy, the company opened offices in some countries as a way of strengthening relationships with its clients. To coordinate the marketing strategy in

USA and Canada, a new American subsidiary was created in Milpitas, Silicon Valley. This is envisaged as a “strategic leader” (Bartlett and Ghoshal, 1989), being expected to have a very significant role in Altitude’s future.

Critical Software

The company was started in 1998 as a spin off from a technology transfer organization of the University of Coimbra (Instituto Pedro Nunes). It was started by three entrepreneurs (João Carreira, Diamantino Costa and Gonçalo Quadros) who carried out their doctorates in the University Department of Engineering at the University.

The company developed a software (*Xception*) for the evaluation and testing of highly critical situations and processes, allowing the detection of failures and recuperation of data. It was the result of 10 years of research in the Department of Computer Sciences at the University of Coimbra, and filled a market niche that was still undiscovered. In the first year, sales were 50 thousand euros, but they quickly rose to 4 million euros, for 2001. Foreign markets account for roughly a half of total turnover.

International recognition of the company begun with the publication of an article in the prestigious American magazine *Byte*, based on the doctoral theses of the founders. Here they described the potential of the software developed by the company through a case study applied to a Portuguese company. The article caught the attention of NASA who become one of the main clients of the company. Companies like Cisco, Siemens and Motorola are also included in its customer portfolio. USA is the most relevant foreign market for the company. It set up a virtual office in San José, California in the International Business Incubator, a base for technology firms without headquarters in the USA. This office works as a special link for supporting American clients. Later, the company opened a branch with several full-time staff, as a way of establishing a more direct line of connection with their clients and partners.

One of Critical Software priority areas of activity is the participation in R&D consortia. The company is currently active in various joint projects coordinated by Chalmers University, involving some of the leading information systems companies.

Other partners are the Valencia, Coimbra and Friedrich-Alexander Universities. This strategy has led Critical Software to participate in an international consortium, which developed a project for the European Space Agency. The company staff is now 40, a quarter of which exclusively devoted to R&D activities. The R&D is headquartered in Portugal. However the American branch plays a very important role in Critical Software strategy. It is a key instrument for market networking, as well as a technology scanner to keep abreast of developments occurring in the Silicon Valley and, more generally, in America.

Chipidea

Chipidea microelectronics was founded in 1997 by three University Professors from the Instituto Superior Técnico (IST): Prof. José Epifânio da Franca, Prof. João Vtal and Prof. Carlos Leme. Chipidea is following the microelectronic path in the creating of circuits and integrated systems, known as chips. Company projects converters, a niche market, where the company combines analogue and digital technology in the same chip. The company is a project/design one, and is centered on the concept of fabless (less factories), where the main objective is to develop a business strategy based on exploiting intellectual property rather than physical assets. There are several areas of application, from UMTS to set-top-boxes to Interactive TV.

The company was born in 1997, but had started taking root 10 years early, when Prof. José Epifânio da Franca led a scientific research team at IST, where Nokia, Atmel and Siemens was involved. This period of ten years allows the team to gain scientific knowledge, in this particular field, and international reputation in scientific and professional community through the publication of several papers in international journals. Prof. José Epifânio da Franca was considered one of the 50 most important researchers worldwide.

Since inception, the natural market was the world. The company don't have any Portuguese client. In 1997 a French company was the only client, but five years later his share is about 15%, and the sales are concentrated in USA and Canada (46%), Japan and Asia (26%) and Europe (28%), and grew from one million € in 1998, to six million € in 2001. His staff is about 130 persons, most part of them dedicated to

R&D. The company launches design centers in Poland and Macao. In both countries, the leading persons were chosen by trust and recognition of competences. One of them was PhD student at IST and the other one is a friend of Prof. José Epifânio da Franca. The main goal of these design centers is to access to people and to knowledge produced in these countries. In United Kingdom, the company has the Vice-President of Sales and Marketing, which the main goal is to accede to customers.

Calzeus

Unlike the other cases, Calzeus works in a traditional industry –footwear. Its international involvement and growth is, however, no less remarkable. Calzeus history starts in 1994 when José Neves, a 20-year old student of economics, left University and decided to start the brand *Swear* which was aimed at the young, unconventional middle-upper market. He worked with his mother, a university teacher, and his father, the owner of a trading company who ran an agency putting in orders to Portuguese footwear companies. The family had been in the footwear business from the time of José Neves' grandfather, but very much in the area of subcontracting as was typical of many companies in the North of Portugal up to the 1990's. In most cases the business was limited to carrying out factory orders from external clients but without any say in product design and no knowledge at all about external markets (Simões, 1997a; Simões, Castro and Rodrigues, 2001).

From the beginning José Neves understood that the concept could have global potential for a young and unconventional segment of the market. So, still in its first year, the company had a stand at international fairs where it won its first external clients. It was a learning phase, still mostly focused on distribution. The idea of *Swear* stood out from the beginning by its originality, design, innovativeness and irreverence. Its sports shoes were addressed to a market niche which, up until then, had been neglected by large companies. These characteristics led *Swear* shoes to the feet of the Spice Girls, REM and actors in the last film of the Star Wars saga.

Through their business travels, the entrepreneur quickly understood that London was an excellent location to both exploit and enhance the ingredients of the *Swear* philosophy. So in 1996 the company opened its first shop in a multicultural location

in London, the "Mecca" of alternative fashion and an *avant-garde* place for new ideas. This shop performed a pioneering role, being a strategic antenna for the company to listen out for and anticipate fashion trends. Being there, enabled Calzeus *setting* and not *following* fashion trends. The shop also created an environment where clients could participate in the "Swear tribe" philosophy.

This original business concept was extended internationally through exports to distributors in five continents, which led the *Swear* philosophy to 35 countries of the world. Between 1988 and 2000, there was a new gale of international expansion both through Calzeus own shops and through franchising arrangements. Starting from Tokyo and Hong Kong, the company widened its international presence to South Africa, Egypt, Spain, Russia, Poland, France, Taiwan, Norway and the United States. In other countries, various retailers "copied" the shop concept under Calzeus authorization. This relatively awkward and mixed process of internationalisation enabled the company to learn and to increase awareness of potential of franchising, which is currently its main way of international expansion.

Simultaneously, the company has a Web site which plays several roles: a platform for electronic commerce; a marketing tool providing news and modern music; and a place for diffusing the *Swear* philosophy and promoting communication between fans. Furthermore, the site helps the company to keep its innovation drive by getting feedback, identifying the tastes and needs of its clients, enabling to anticipate trends in the unconventional footwear business. In the year 2001, Calzeus turnover was around 8 million euros, six times more than in 1995, getting 90% from external markets. The critical links of the company value system are still controlled by the Neves family. Design, marketing and international distribution activities are located in London, while prototypes, manufacturing, final assembly and quality control are based in Portugal. Around 95% of the production is subcontracted to Portuguese and Asian firms.

RESULTS AND DISCUSSION

The four cases described above provide evidence of *born globals*. Taking a general perspective, four aspects are worth mention. First, they all started international

activities in the first year of their existence. Second, their sales in foreign markets are high, representing 82% for Altitude, 50% for Critical, 100% for Chipidea and 90% for Calzeus. Moreover all these companies use different modes of operation simultaneously, from exporting and subsidiaries abroad, to licensing and franchising, participating in cooperation networks and international sub-contracting. Finally, their markets do not follow a pattern of increasing psychic and geographic distance: their pioneering markets abroad were all outside Continental Europe. International development patterns of the companies studied are very different from the mainstream internationalisation strategies followed by Portuguese firms (Simões, 1997 a, 1997 b; Simões, Rodrigues and Castro, 2001; Dominginhos, 2001).

Proposition 1: *Entrepreneurs, in born global firms, will influence decisively the process of entrepreneurial discovery and the decision to act, since inception, across the world*

Those companies think global and use foreign activities both as an instrument to build and exploit competitive advantages and as scanning devices to improve their dynamic capabilities. To some extent they are akin to metanational firms (Doz, Santos and Williamson, 2001). Company routines have always been influenced by international perspectives and experiences. So, they don't need to go through the painful, slow, resistant-to-change process of organizational unlearning which happens when companies start their internationalisation after a long experience in their domestic markets (Autio, Sapienza and Almeida, 2000).

Entrepreneurs were able to identify and build a combination of resources, mostly intangible, leading to outward activities from the start. The development of specific, difficult-to-imitate packages in the cases of Altitude and Critical, new combination in the case of Chipidea and an innovative concept in the case of Calzeus. But these assets were accompanied and leveraged by the visionary thinking of the entrepreneurs who, from the beginning, positioned themselves as players at the international competition chess-board, with a philosophy of *made by* as opposed to *made in*. In one of the round tables, all the four entrepreneurs were unanimous to say, "for them, there no other alternative to act in international markets".

Entering a global market also appears possible in response to the competitive opportunities that companies faced. In the case of Calzeus there was clearly a bet on a

young, urban, global segment of the market with similar needs, making it possible for the company to sell the same thing, in the same way in all places (Levitt, 1983). In the case of the software companies, international protocols in hardware and software areas, the universal use of sources to connect with clients as well as the growing importance of technology in business processes, opened windows of global opportunity. In the case of Chipidea, chips are a worldwide product used by transnationals, so since inception the world was the market and it was very clear in entrepreneurs ideas when they often assume: “we don’t have Portuguese clients”.

The international impulse came from the entrepreneurs with an idea and a unique and innovative concept. They were able to identify windows of opportunity, which were, up until then, invisible to others. Strategic capacity was also clear in the choice of markets and modes of operation. In the case of the software companies, they recognized USA as the lead market in this area and made a committed bet there. Though facing a strong competition and some scarcity of financial resources, the companies have chosen to locate where “the action was” (that is, in the most innovative markets) to both respond their customers’ needs and to keep abreast and internalise new business and technological developments. This enabled business processes and technological learning, by monitoring the competition, having access to information in real time and developing new knowledge.

The discussion above allows us to confirm that entrepreneurs were the decisive factor to go internationally since the birth of companies. They provide the idea, the product and the impulse, as well as the commitment to internationalisation. In some cases, these firms start to germinate several years before, in entrepreneur’s thoughts

Proposition 2: *Entrepreneur’s previous knowledge will influence the way to serve markets, the choice of markets, the choice of partners and the products and services to serve the markets and customers.*

Companies did not start on the path alone. External linkages played a key role in enabling access to specific resources as well as in opening market opportunities. In the case of Critical, software development was the culmination of a ten-year R&D effort pursued at the University of Coimbra. Access to institutional, reputation-building customers, like the European Space Agency, took shape from an

international research project carried out with various public and private partners. For Altitude the relationship with an US venture capital organisation enabled the injection of cash, essential for both the development of UCI and the company's entry into the global market. For Chipidea, the scientific reputation of Prof. Epifânio da Franca is the best card when the company talk with customers. He build up external contacts that facilitates the access to customers and to partners when is necessary to go into alliances to develop some technology, as it happens in Scotland, where the company is taking part of Chartered Semiconductor's prototyping program with one of the world's top three silicon foundries. The professionals know, also, very well his capabilities and his competence.

No less relevant were the relationships with customers. It may be argued that some of them, particularly in the cases of Critical and Altitude, were key drivers of innovation: their demands led the young companies to "push the envelope" (Bowen *et al*, 1994), further developing their software competences and exploiting them in new applications. Customers were also relevant in supporting and encouraging internationalisation of those companies. Some customers, such as Alcatel and IBM for Altitude and NASA for Critical, ATMEL for Chipidea, acted like levers at the start of the process. They were also key references for these young, relatively unknown firms to build their international reputation. NASA and Sidney Olympiads were basic "calling cards" for introducing Critical and Altitude, respectively, to new potential clients. In the case of Calzeus, in the beginning, the contacts provided by the trading company managed by Jose's father was crucial to get the first orders in international markets

Such a path was marked by an innovative capacity translated in the launching of new products and in the relationships with demanding, sophisticated customers. This resulted in a capital of confidence, which gave a further impetus to international expansion. The setting up of branches in USA by Altitude and Critical was to a large extent motivated by a desire of anticipating and responding customers' needs and of being able to learn from their demands. Calzeus opened mono-brand to promote the diffusion of *Swear* image and values among the "tribe" of fans, as well as to generate the final customer' feedback needed for nurturing a behaviour of innovation and creativity in design.

But prior knowledge is, also fundamental, to set up operations abroad. In Chipidea, trust and previous knowledge of persons were crucial when the firm decide to launch design centres in Macao and Poland. In this case, private network was called.

All this cases show that relational capital is fundamental in born globals, and that prior knowledge of entrepreneur about one technology, about customers and professional contacts provide the complimentary resources to exploit the entrepreneurial opportunity discovered. This discussion confirms proposition 2.

CONCLUSIONS

Received theory (Johanson and Vahlne, 1977; Luostarinen, 1979) argues that internationalisation is an incremental process in which the accumulation of experiential knowledge acts as a key ingredient for firms to increase their commitment to external markets. However, in the 1990's, analysis of young firms business experiences led some authors to challenge this body of theory. This paper analysed four cases of Portuguese *born globals*. These companies started international activities in their first year of existence. They located in countries that are neither psychologically nor geographically close to Portugal. They use the subsidiaries abroad not only to improve customer servicing but also as scanners of new information and knowledge. They try to orchestrate knowledge and relational resources internationally, in a way which is similar to metanational organisations (Doz, Santos and Williamson, 2001). Most notably, our explanatory exercise has shown that the *born global* phenomenon is not specific to high technology intensive industries. The case of Calzeus shows how *born globals* may also emerge in traditional industries like footwear.

The explanation of this phenomenon is rooted in various factors. Of all these factors the entrepreneur stands out, although it would be important in the future to identify and classify those capabilities that stimulate an instant international performance. In the four cases analysed in this paper, the following essential characteristics emerged: i) basic scientific and/or business knowledge, giving rise to the creation of a unique and innovative concept (internationally recognised with prizes) that enables the firm to enter the international competitive arena and to earn an international reputation; ii) the visionary thinking of entrepreneurs in terms of

identifying global windows of opportunity and in taking an outward-oriented approach from the beginning; and iii) management skills in combining resources and in promoting their international development.

This international path is also a result of the relational capital built up by the entrepreneurs and company. Participation in R&D consortia is important in enabling the access to, and internalising, new technological developments, as well as in gaining institutional “flagship” customers. The triggering factor for internationalisation may also be the challenge raised by multinational customers which act as “godfathers” and facilitators of further international expansion. A common thread in the companies surveyed was the use of relational capital not just as a way to grow but also as a learning device, enabling firms to understand and anticipate customers’ needs. This behaviour is very connected to the sort of knowledge intensive resources that are exploited, even in a company from the footwear sector. Here there was the capacity to reinvent an industry through a new concept, showing that the phenomenon of *born globals* is not solely confined to the sectors of new technologies.

Finally, this paper shows us that that the phenomena of born globals is not possible to happen in more advanced countries, as Finland, Israel, Norway, UK and USA. This research opens new opportunities for companies from countries with less developed systems of innovation.

This paper raises questions for future research. Because only born globals were analysed, it is important to compare *born globals* with young firms that do not go international or which are more cautious in going abroad, to identify the characteristics, which are most likely to influence their contrasting behaviour. Secondly, it’s important to extend the analysis to other traditional sectors to understand if this case is just an outlier, or if we could find a pattern. Thirdly, it’s important to analyse the relation between the national system of innovation and the born global phenomenon.

REFERENCES

Andersson, Svante (2000), The internationalisation of the Firm from an Entrepreneurial Perspective, *International Studies of Management and Organization*, 30 (1) pp. 63-92

- Andersson, Svante and Wictor, Ingemar (2001), Innovative international strategies in new firms – born globals, paper presented at the Nordic Workshop in International Business, Idoborg, Sweden
- Autio, Erkki and Burgel, Oliver (1999), Internationalisation Experience, Knowledge Resource Endowment, Perceived Cost of Internationalisation and Growth in Technology-Intensive SMEs, Paper presented at the World Conference on International Entrepreneurship, Singapore, August 15-18
- Autio, Erkki, Sapienza, Harry and Almeida, James (2000), Effects of Age at Entry, Knowledge Intensity, and Imitability on International Growth, *Academy of Management Journal*, 43 (5), pp: 909-924
- Bartlett, C.A. and Ghoshal, Sumantra (1989), *Managing Across Borders – The transnational solution*, Harvard Business School Press, Boston.
- Bell, J. (1995), The Internationalisation of small computer software firms, *European Journal of Marketing*, 29 (8), pp: 60-75
- Bowen, H. Kent, Clark, Kim B., Holloway, Charles A., Leonard-Berton, Dorothy e Wheelwright, Steven, (1994), “ Regaining the Lead in Manufacturing”, *Harvard Business Review*, Set.-Out., pp. 104-143.
- Cantweel, John and Narula, Rajneesh (2001), The Eclectic Paradigm in the Global Economy, *International Journal of the Business of Economics*, vol. 8 (2), pp: 155-172.
- Coviello, Nicole and Munro, H. (1997), Network Relationships and the Internationalisation Process of Small Software Firms, *International Business Review*, 6 (2), pp: 1-26
- Crick, Dave and Jones, Marian (2000), Small High-Technology Firms and International High-Technology Markets, *Journal of International Marketing*, 8 (2), pp: 63-85
- Dominguinhos, Pedro (2001), *A Experiência de Internacionalização das Empresas Portuguesas : Realidades e Desafios*, Paper Presented at the 9th Workshop in Industrial Economics, Leiria
- Doz, Yves, Santos, José and Willianson, Peter (2001), *The metanational corporation*, Harvard Business School Press
- Eisenhardt, K. (1991), ‘Better Stories and Better Constructs: The case for rigor and comparative logic’, *Academy of Management Review*, 16 (3), pp: 620-627.
- Eisenhardt, K.M. (1989), Building Theories from Case Study Research, *Academy of Management Review*, 14 (4), pp. 532-550
- Fontes, M. (1996), *Searching for Technology and Markets: the process of internationalisation of new technology based firms*, paper presented at the CEDE’s conference “10 Anos de Integração: Portugal, a Indústria e o Papel das PMEs”, January, Lisbon.
- Fontes, M. and Coombs, R. (1997), The Coincidence of Technology and Market Objectives in the Internationalisation of New Technology-Based Firms, *International Small Business Journal*, 15, 4, pp: 14-35
- Ghuri, P., Gronhaug, K and Kristianslund, I. (1995), *Research Methods in Business Studies*, Prentice Hall, UK
- Hamel, Gary (1995), ‘Managing out of bounds’ in Crainer, S., *The Financial Times handbook of management: the state of the art*, Pitman Publishing, London
- Hamel, Gary and Prahalad, C.K. (1989), Strategic Intent, *Harvard Business Review*, May-June
- Hayek, Frederick (1945), The Use of Knowledge in Society, *American Economic Review*, 35 (4), pp: 519-530
- Johanson, Jan and Mattsson, L. G. (1988), Internationalisation in industrial systems a network approach, pp: 303-321, in *Internationalisation of the Firm – A Reader*, Peter Buckley e Pervez Ghauri (eds), International Thomson Business Press
- Johanson, Jan and Vahlne, Jan Erik (1977), The Internationalisation Process of the Firm, *Journal of International Business Studies*, Vol 8 nº 1, pp: 23-32.
- Johanson, Jan and Vahlne, Jan Erik (1990), The Mechanism of Internationalisation, *International Marketing Review*, Vol 7 nº4, pp: 11-24.
- Johanson, Jan and Wiedersheim-Paul (1975), The Internationalisation of the Firm - Four Swedish Cases, *Journal of Management Studies*, October, pp: 305-322.
- Jones, Marian (1999), Patterns, Processes, Decisions: The Internationalisation of Small UK High Technology Firms, *Journal of International Marketing*, 7 (4), pp: 15-41
- Kaish, S and Gilad, B. (1991), Characteristics of Opportunities search of entrepreneurs versus executives: Sources, interests, and general alertness, *Journal of Business Venturing*, 6, pp: 45-61

- Khilstrom,,R. and Laffont, J. (1979), A general equilibrium entrepreneurial theory of firm formation based on risk aversion, *Journal of Political Economy*, 87 (4), pp: 719-748
- Kirzner, Israel (1973), *Competition and Entrepreneurship*, University of Chicago Press, Chicago
- Kirzner, Israel (1997), Entrepreneurial Discovery and the Competitive Market Process: An Austrian Approach, *Journal of Economic Literature*, XXXV, pp: 60-85
- Levitt, T. (1983), The Globalisation of Markets, *Harvard Business Review*
- Luostarinen, Reijo (1979), *Internationalisation of the Firm*, Helsinki School of Economics, Helsinki.
- Madsen, Tage Koed and Servais, Per (1997), The Internationalisation of Born Globals: an Evolutionary Process?, *International Business Review*, 6, pp: 561-583
- McAuley, Andrew (1999), Entrepreneurial Instant Exporters in the Scottish Arts and Crafts Sector, *Journal of International Marketing*, 7 (4), pp: 67-82
- McDougall, Patricia and Oviatt, Benjamin (2000), International Entrepreneurship: the Intersection of Two Research Paths, *Academy of Management Journal*, 43 (5), pp: 902-906
- Oviatt, Benjamin and McDougall, Patricia (1994), Toward a Theory of International New Ventures, *Journal of International Business Studies*, 24, pp:45-64
- Oviatt, Benjamin and McDougall, Patricia (1995), Global start-ups: Entrepreneurs on a worldwide stage, *Academy of Management Executive*, 9(2), pp:30-43
- Oviatt, Benjamin and McDougall, Patricia (1997), Challenges for Internationalisation Process Theory: The Case of International New Ventures, *Management International Review*, 37 (2), Special Edition, pp:85-99
- Oviatt, Benjamin and McDougall, Patricia (2000), 'International entrepreneurship: The Intersection of two Research Paths', *Academy of Management Journal*, 43 (5), pp: 902-906.
- Rennie, Michael (1993), Global Competitiveness: Born Global, *McKinsey Quarterly*, 4, pp. 45-52
- Sarasvathy, Saras and Venkataran, S. (2002), Three Views of Entrepreneurial Opportunity, in Acs et al (Eds), *Entrepreneurship Handbook*,
- Schumpeter, J. (1934), *Capitalism, socialism and democracy*, Harper and Row, New York
- Shane, Scott (2000), Prior Knowledge and the Discovery of Entrepreneurial Opportunities, *Organization Science*, 11 (4), pp: 448-469
- Shane, Scott and Venkataran, S. (2000), The Promise of entrepreneurship as a field of research , *Academy of Management Review*, 25 (1), pp: 217-226
- Simões, Vítor Corado (1997a), *Inovação e Gestão em PME*, GEPE, Lisbon
- Simões, Vítor Corado (1997b), *Cooperação e Alianças Estratégicas nos Processos de Internacionalização*, AIP, Lisbon
- Simões, Vítor C. (1997c), Internacionalização das Empresas Portuguesas: Que Papel para a Cooperação?, *Economia e Prospectiva*, Vol. I N.º.2, pp:17-31
- Simões, Vítor Corado, Castro, Alberto and Rodrigues, Vasco (2001), *A Internacionalização das Empresas Portuguesas: Uma Perspectiva Genérica*, GEPE/Semário Económico, Lisbon
- Simões, Vítor Corado and Dominginhos, Pedro (2001), The Portuguese Born Globals: An Exploratory Study, Paper presented at 27th EIBA, Paris, December, 13-15
- Stake, Robert E. (1994), Case Studies, in Denzin, Norman K. e Lincoln, Yvonna S. (eds), *Handbook of Qualitative Research*, SAGE Publications, London
- Teixeira, António (2000), *A Internacionalização nas Novas Empresas de Base Tecnológica*, Dissertação de Mestrado, Universidade de Aveiro
- Teixeira, António and Laranja, Manuel (2001) *A Internacionalização das Novas Empresas de Base Tecnológica*, paper presented at the IV Conference on the Portuguese Economy, May, Lisbon, pp: 807-828.
- Vaughan, D. (1992), 'Suggestion for studying strategy process: A research note', *Strategic Management Journal*, 13, pp: 169-188
- Venkataran,S (1997), The Distinctive Domain of Entrepreneurship Research, *Advances in Entrepreneurship, Firm Emergence and Growth*, Vol. 3, pp: 119-137
- Von Hippel, E. (1988), *The Sources of Innovation*, Oxford University Press: Oxford.
- Yin, R. K. (1994), *Case Study Research – Design and Methods*, Newbury Park, CA:Sage
- Yli-Renko, H., Autio, Erkkko and Tontti, Vesa (2001), *Social Capital, Knowledge, and the International Growth of Technology-Based New Firms*, *Strategic Management Journal*.