

BORN GLOBALS: Taking Stock, Looking Ahead

Pedro Miguel Dominginhos¹
Polytechnic Institute of Setúbal, College of Business Administration
Campus do IPS, Estefanilha, 2914-503 Setúbal, Portugal
pdominguinhos@esce.ips.pt
Phone: +351 265709432
Fax: + 351 265709314

Vitor Corado Simões
CEDE, ISEG - Instituto Superior de Economia e Gestão
Technical University of Lisbon
vcs@iseg.utl.pt

¹ Phd student at ISEG, Technical University of Lisbon

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INTRODUCTION

The research on born globals is developing fast. This new breed of firms challenges old, well established views of internationalisation. Unlike ‘traditional’ multinationals which experienced relatively slow, incremental internationalisation processes, usually anchored on a sound domestic business basis, born globals embrace the world, or significant parts of it, as their market since (or almost since) inception. They emerge as international players, taking profit from globalisation and technological advances in information and communication technologies (Knight and Cavusgil, 2004), and focussing on niche international markets.

Yet this research field remains largely uncharted. Several research strands have developed, espousing different operational definitions and theoretical bases. The newcomer will see many ‘trees’, many studies following multiple approaches, and will be faced with the difficult to find to what extent such ‘trees’ are part of a same ‘species’. This raises some discomfort, and doubts with regard to the soundness of research paths. More than ten years have elapsed since Rennie’s (1993) seminal paper. Even though the survey carried out by Rialp *et al* (2002) made a good contribution, there is a need to improve the chartering of the field, especially on what concerns empirical studies. This is the purpose of the present paper: it will take stock of, and analyse extant literature, to look ahead, identifying convergence axes, under-researched topics, and new questions to be answered.

The present paper will be organised in six sections, including this introduction. The second will present the main issues raised by born globals literature as well as the main focus of the paper. Then, the research design is explained, highlighting the method used for analysing the foundations of extant literature. The results obtained are present in section four.

Two axes will deserve particular attention: theoretical approaches and operational definitions used. Typologies of born global studies will be developed under each axis. The fifth section provides a discussion of the results. The paper closes with a concluding section, where several questions will be raised as possible ‘milestones’ for guiding further research on the topic.

THE ISSUES

The pioneering research carried out by Nordic scholars (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977; Luostarinen, 1979) established a paradigm of the internationalisation process which has been dominant for more than twenty years. The main tenets of such a paradigm were (Petersen and Pedersen, 1997): at the theoretical level, the time-consuming accumulation of experiential market knowledge leads to an incremental foreign market commitment; and at the operational level, such incremental process is translated into step-wise establishment chains as well as into a geographical expansion pattern like “rings in the water” (Madsen and Servais, 1997). It has been increasingly recognised, however, that – in a “shrunk” world and in an “accelerated” time – incrementalism was being challenged by emerging international business requirements (Johanson and Vahlne, 1990 and 2003a; Petersen and Pedersen, 1997).

In fact, a new type of firms got academic attention in the nineties, following an internationalisation pattern in sharp contrast with the incremental process postulated by the ‘Nordic School’. Fast international reach, innovative moves, and multi-faceted cooperative arrangements characterised these firms, named as born globals (Rennie, 1993), international new ventures (Oviatt and MacDougall, 1994), instant exporters (McAuley, 1999) or even supranationals (Hamel, 1995). These firms – called hereinafter *born-globals* to use a general label – are undoubtedly a by-product of globalisation (Knight and Cavusgil, 2004), but they

are simultaneously furthering it. In today's turbulent environment, firms must adapt quickly in order to survive and to achieve success, and need to forge opportunities, identifying global niches, often without relying on 'lead' markets. Reasoning on a 'traditional' internationalisation approach it becomes puzzling how these firms – often with no previous business experience, lack of knowledge about foreign markets, and scarcely endowed with financial resources – can compete and thrive internationally.

Since the work of Rennie (1993), numerous scholars have studied these firms, and a wealth of literature emerged. So far, some areas of consensus were developed. It has been argued that entrepreneurs play a key role in the foundation phase, providing technical competencies, using strong and weak ties to design, manufacture and market distinctive products or services. Social capital is often assimilated to a resource, providing the young firm the credibility needed to get the 'right' to enter strategic international networks. Additionally, it was found that these firms tend to adopt international niche market strategies, often supported by a complex network of partners along the value chain – or else, based on the vertical segmentation of businesses.

Are we faced with a paradigm change (Kuhn, 1962) in the study of internationalisation processes? We are not in a position now to respond such a question. The answer requires a closer look at the key issues addressed by the born globals literature. It seems, however, that we are still at a pre-paradigmatic stage. In other words, making a parallel with the development of industries, we appear to be at a fluid stage (Abernathy and Utterback, 1978), where no dominant design has emerged so far. There are too many descriptions and characterisations of this kind of firm, but the field remains – as it was argued above – 'unchartered' in general terms. There is, therefore, a need to analyse the work undertaken so far, to build a basis for future progress as well as to achieve scientific legitimacy.

The survey carried out by Rialp *et al* (2002) was a step in a positive direction. It focussed on both theoretical and empirical papers on the subject, an option that may raise some problems, since it amalgamates two different levels of analysis, and approaches with disparate objectives. Furthermore, in this emergent field two years correspond to a significant time period: 42 new empirical papers were identified, deserving therefore a closer attention. Additionally, a different methodology to undertake literature review is used, going beyond the methods traditionally used.

The present paper will be focussed on two main issues: theoretical approaches to study, and operational definitions of born globals. It is thought that these are building blocks to ‘charter’ the field, as well as to better understand what one is talking about when born globals are mentioned. Since born globals are at the crossroads of different theoretical strands, time has come to know how they do relate to explain the phenomenon, and which promising approaches are emerging. The other issue concerns scope or, in more practical terms, operational definitions of born globals. ‘Chartering’ them is a key step for reducing diversity and reaching the minimum consensus needed for asserting born globals as an important research field on its own.

RESEARCH DESIGN

The key objective of this paper is to define a typology of the main strands in the literature on born global firms. To accomplish this goal, the first task was to identify the research articles and papers dealing with the subject. A search was carried out in *Emerald*, *Proquest* and *Ebco-host*. Electronic databases and search engines in the Internet (<http://scholar.google.com>; www.google.com; www.alltheweb.com), were also used to spot additional papers, edited in thematic books, presented at scientific conferences or available for

download from personal pages of academic scholars. Additionally, the proceedings of scientific conferences on internationalisation, international business and international management were also searched. The temporal range went from 1993, when the pioneering study of Rennie was published, to December 2004. We do hope to have reached by these means a full coverage of the most relevant articles and papers dealing with born globals.

The next step was focussed on the identification of the main dimensions to analyse extant literature. For each article or paper the following aspects were recorded: author, year of publication, method, sample, size/number of cases, sector, definition used, main objectives and theoretical foundations. Three methodological approaches were identified: case studies, hypotheses testing from surveys, and descriptive surveys. Industry-wise, three categories of contributions came out: those dealing with high-tech industries/firms only, those exclusively concerned with traditional industries, and those which deal simultaneously with industries exhibiting different levels of technological intensiveness. Regarding operational definitions, four main attributes were identified to classify a firm as born global: the time elapsed between birth and first sale abroad; the share of international sales in total turnover; year of foundation; and number of continents served. Finally, on what theoretical axes are concerned, a wide set of categories emerged: previous literature on born globals, Nordic internationalisation school, network approach, social capital approach, resource based view, learning perspectives, entrepreneurship and strategy. Each article was, then, more specifically classified according to each dimension.

The data set stemming from this procedure is therefore characterised by the presence of multidimensionality and qualitative indicators. In order to extract valuable information from it, an analysis of homogeneity was undertaken (Greenacre and Blasius, 1994; Sharma, 1996; Tenenhaus and Young, 1985). This method enables the identification of relationships among variables, as well as a clustering based on variables homogeneity. This procedure

enables the aggregation of variables, and the obtaining of continuum variables to be used for further analysis. The next step was the definition of typologies of empirical studies. For this purpose a cluster analysis was undertaken. This raises, however, the problem of identifying the most suitable number of clusters. Six distinct methods (average linkage between groups, average linkage within groups, furthest neighbour, nearest neighbour, centroid and Ward) were used in order to find a stable solution (Hair *et al.*, 1998), taking into account fusion coefficients and their differences. Such a solution was analysed from the perspective of facial validity. Then, the result obtained following each method was compared with a solution, including the same number of clusters, using a K-Means method.

For the subsequent analysis, the Wards's method was chosen. In fact, it is distinct from all other methods and is regarded as very efficient, based on minimizing the loss of information from joining two groups (Ward, 1963). It uses a variance analysis approach to evaluate the distances between clusters, with a view to minimize the sum of squares of any two (hypothetical) clusters that can be formed at each step. A problem with this method is the possibility of extracting clusters with few elements. However, this is not a shortcoming from our perspective, since those 'marginal' clusters may correspond to still unexplored fields of research. The procedure was performed using SPSS 12.0.

RESULTS

The review undertaken led to the identification of 68 empirical papers dealing with born globals; these are presented and summarized in Appendix 1. A cursory look at it raises two comments. First, born globals are still at infancy age as an academic field: 84% of studies were published in the last five years, and 63% in the last three. Second, the study of born globals phenomenon is internationality widespread: around eighty scholars have published on

this issue, based on empirical data from more than twenty countries, including both small and large as well as highly developed and less advanced.

Theoretical Approaches

From a theoretical point of view, the study of born globals seems to be still at a pre-paradigmatic stage (Kuhn, 1962). In fact, albeit born globals are at crossroads of different theoretical approaches, there is not so far a sound theoretical basis to analyse the phenomenon. A look at the papers shows that several of them even lack a theoretical anchor. A number of papers is descriptive, concerned with the creation of born global firms, how did they started and what are their main characteristics, often contrasting this new breed with well established international firms. Recently, however, a host of papers with strong theoretical concerns, aimed at testing hypotheses and propositions derived from the literature, gained ground. Theoretical anchors come, however, from different strands, as indicated above (industrial networks, social capital, international entrepreneurship, resource based view, knowledge management and learning, and company location and clustering). Ironically, in spite of the multitude of theoretical approaches, international business theories, with exception of the Nordic approach, appear to be sub-utilised.

The results of the homogeneity analysis (Homals procedure) are shown in Tables 1 and 2. They enable to capture some key dimensions that help in explaining the diversity of born globals literature.

For each dimension, the theoretical approaches exhibiting a discrimination value higher than the eigenvalue for this dimension were chosen (Greenacre and Blasius, 1994; Sharma, 1996; Tenehaus and Young, 1985). Comparing discrimination measures for theoretical approaches with eigenvalues in each dimension, it is possible to identify three

significant axes for classifying empirical studies. Together, they explain around 59% of variance, as one may see in Table 1.

Categorical quantifications of the theoretical approaches considered as significant are presented in Table 3. Each dimension exhibits antithetical contributions from theoretical approaches. In dimension one, results from previous studies contrast with insights from other fields of research (knowledge management, learning, and resource based view approaches). In fact, born globals are understood as firms with valuable, rare, idiosyncratic and non-imitable resources, enjoying simultaneously dynamic capabilities which enable their regeneration. This means that authors are not just looking at the stock of resources, but go beyond a static view to regard born globals as pro-active firms that reinvent their competences in order to enhance or sustain their competitiveness in turbulent environments.

Dimension two provides a contrast between Nordic school and entrepreneurship approaches. The identification of opportunities as well as visionary, scientific and management capabilities of entrepreneurs are recognised. Entrepreneurs' personal and managerial competences, attitudes towards uncertainty and ambiguity, and risk taking behaviours are underlined. Conversely, the Nordic school stresses gradualism and incremental accumulation of international oriented knowledge. Therefore, this dimension goes from an organic view of firm growth to a more emergent view of the firm, without a well defined internationalization path, but looking rather for opportunities around the world.

Finally, dimension three reflects an opposition between individual and company relationships (networks and social capital) and international strategy issues. In this field, the concern is with how firms take decisions (investigate the role of formality, serendipity, and formal planning), for what type of markets (close or distant), what kind of product strategies (standardization or customization), and export strategies. Conversely, networks and social

capital emphasise the distinctive role of relationships for the emergence and development of born globals.

The identification of such dimensions provides a basis for a topology or semantic space where empirical studies could be located. The hierarchical analysis carried out according to the method indicated in the research design section above, led to solutions between four and six clusters. Each solution was tested, the results provided by six clusters exhibiting stronger internal consistence while providing a logical explanation for integrating born globals literature. Statistical tests (Appendix 2) were performed against K-Means Method.

Following the dendrogram of Ward's method it was possible to assign each paper or article in the corresponding cluster (Figure 1). Nineteen (27,9%) papers were classified in cluster 1, twenty five (36,8%) in cluster 2, ten (14,7%) in cluster 3, four (5,9%) in cluster 4, four (5,9%) in cluster 5, and 6 (8,8%) in cluster 6. The next step was the identification of the 'dominant' dimensions in each cluster, as shown in Figure 2.

In cluster 1, dimensions one and three are slightly negative, revealing the importance of capabilities and relationships, respectively. Cluster 2 exhibits a positive value of dimensions one and two, incorporating the contribution of previous results on born globals and Nordic school. Cluster 3 includes previous findings of born globals studies, but its distinguishing feature is a strong entrepreneurial orientation (dimension two is negative) and a focus on strategy (dimension three is positive). Strategy arises also on cluster 4, but learning is, undeniably, the core contribution for this cluster, influenced, as well as by Upssala model, especially regarding experiential knowledge and learning capabilities of the firms about international markets. For cluster 5, the most powerful contributions come from networks and social capital (dimension three is negative); these are complemented by entrepreneurship and

the resource based view. Finally, cluster 6 is characterized by a strong entrepreneurial orientation.

The six clusters identified provide an interesting typology of empirical studies on born globals. To facilitate the interpretation, clusters were graphically related to the dimensions on a three-dimensional space, as shown in Figure 3.

Clusters 1 and 2 include contributions concerned with setting the field; their main objective is to explain and describe what born globals are, and their main characteristics. In this sense, cluster 1 seeks to incorporate other contributions beyond Upssala model. Born globals, due to their lack of resources (financial, managerial and reputational) and the volatility of their operation in very competitive markets, anchor their strategies on a constellation of relationships (Arenius, 2002; Chetty and Campbell-Hunt, 2004; Coviello and Munro, 1995; Jones, 1999) as well as on packages of resources, very innovative and idiosyncratic (Almor and Hashai, 2003; Harverston *et al*, 2000b; Knight and Cavusgil, 2004; Riapl *et al*, 2002). One can label cluster 1 as **Relationship/Capability focussed**. Cluster 2 revolves around the contrast between born globals phenomenon and Nordic school approaches to internationalization. Contributions are addressed to investigate if there are radical differences between the two types of movements or if traditional approaches, with some modifications, can accommodate this new reality (Andersson *et al*, 2004; Aspelund and Moen, 2001; Autio and Burgel, 1999; Gabrielsson and Kirpalani, 2004; Gabriellsson and Pelkkonen, 2004; Harverston *et al*, 2000a; Knudsen and Madsen, 2002; Loane and Bell, 2002; Loane *et al*, 2004; Luostarinen and Gabriellson, 2002; Madsen *et al*, 2000; Moen and Servais, 2002; Sperling, 2003). At the same time, studies draw heavily on the stock provided by other former works on born globals. In this sense, cluster 2 can be identified as **Challenging Upssala**.

The other clusters, from 3 to 6, include fewer papers and are focused on specific theoretical approaches; they are less generalist, but provide clear directions on issues relevant to understand the born globals phenomenon. Cluster 3 can be classified as **Entrepreneurial strategies**. Papers assigned to this cluster deal with the type of strategies born globals follow and with how do they emerge as well as with the influence of leader and management teams characteristics and vision on performance (Johnson, 2004; Kuivailainen *et al*, 2004; Schnlange and Lehmann, 2004; Spence and Crick, 2003). Cluster 4 accommodates papers addressing born globals as **Learning devices**. Born globals are envisaged as entities whose learning capabilities allow them to grow quickly and to achieve fast adaptation to turbulent environments (Autio *et al*, 2000; Nummela *et al*, 2004b; Zahra *et al*, 2000). In cluster 5, born globals are envisaged as **Entrepreneurial learning networks**, anchored on social capital and network theories (Prashantham, 2003, Sharma and Blomstermo, 2002; Wakkee, 2004) or in cluster relationships (Sopas, 2001) to exploit their competitive advantage. Finally, in cluster 6 we are in the presence of **Opportunity exploitation**. Authors look at born globals as entities whose the main drive is to identify and exploit entrepreneurial opportunities (Borsheim and Solberg, 2004; Spence, 2004), recognising also the relevance of entrepreneurs' personal ties in different phases of their company life cycles (Dominginhos, 2002).

Born globals scope

As it was seen above, research on born global was carried out through case studies (54%), hypotheses testing (38%) and descriptive surveys (8%). In the first case, the key argument is related to the newness of the phenomenon as well as to the need to answer *how?* and *why?* questions, which requires a deep understanding of how this new type of internationalisation unfolds. The use of case studies and descriptive surveys enables a clinical

look at specific born global firms, providing valuable insights for future research, regarding new theoretical approaches or some refinement of particular issues.. When authors test hypotheses, they go deep into specific aspects of born global characteristics and behaviours mostly based on cross section analyses. It is interesting to remark that, although so far there is no clear trend in favour of either approach, in recent contributions descriptive surveys are loosing ground; this may be understood as indicating the existence of a body of knowledge and empirical evidence researchers can rely on.

Turning now to the characteristics of industries, it a strong focus on high-tech industries was found in high-tech industries (Autio *et al*, 2000; Bell, 1995; Bloodgood *et al*, 1996; Coviello and Munro, 1995; Crick and Jones, 2000; Jones, 1999; McDougall *et al*, 1994). Gradually, however, born globals in traditional sectors were also identified and studied (Andersson and Wictor, 2003; McAuley, 1999; Rasmusen *et al*, 2001; Rialp *et al*, 2002; Rialp *et al* 2003; Simões and Dominginhos, 2001; Wickramasekera and Bamberry, 2001). Interestingly, there is a consensus on what regards the characterisation of born globals as knowledge intensive firms, irrespectively of the industries they are engaged in.

The key issue with regard to born globals scope is the analysis of the operational definitions used to classify a firm as born global. If, from a conceptual point of view, the definition proposed by Oviatt and McDougall (1994) was widely adopted, the same consensus was not found regarding operational definitions. In fact, nineteen different criteria, somewhat arbitrary, were used to define a firm as born global. This makes comparisons very difficult and risky (Rialp *et al*, 2002). In spite of this diversity, it was possible to identify four key categories: time span between firm foundation and first sale abroad; export intensiveness; year of foundation; and geographical range of activities.

In the first category, most studies used explicitly a time frame of six years, revealing a strong influence of the pioneering studies of Oviatt and McDougall (1994, 1995, 1997).

Another group of contributions considers three years as the cut-off point to classify a firm as born global. A small number of cases used a more restrictive time span - one or two years. It is interesting that, in some studies, authors did not define a time frame, mentioning instead “*in the first years*” (Beibst *et al*, 2003; Evangelista, 2003 ; McNaughton, 2003; Prashantham, 2003) or “*very soon*” (Phiri, *et al*, 2003), a too arbitrary approach. With regard to the ratio of sales abroad to total turnover, some studies did not impose any specific figure, considering the mere existence of sales abroad. There is also a lack of agreement on the minimum share (going from 5% to 75% of turnover). Finally, some papers require born globals to do business in at least three countries (Sharma and Blomstermo, 2002) or, in a more demanding definition, two continents (Karlssen, 2003; Kuivailainen and Sundqvist, 2004; Luostarinen and Gabrielsson, 2002).

Using these dimensions (time span between firm foundation and first sale abroad; export intensity; year of foundation; and geographical range of activities) it was possible to classify extant literature in four clusters (Figures 4 and 5). Statistical test is shown in Annex 3.

In cluster I (28 papers), the distinguishing feature, from a statistical perspective, is the time frame of two years for the firm to start selling abroad, incorporating the suggestion of Rennie’s (1993) seminal work. Cluster II (21 papers) is more homogeneous, and robustly focussed on a qualitative operational definition, with no temporal frame or export intensiveness, strongly influenced by Oviatt and McDougall (1994). Additionally, from a statistical point of view, the time frame of one year, which may be understood as indicating internationalisation since inception, appears as discriminant. Cluster III (9 papers) includes papers that impose a time frame of six years. Finally, cluster IV (10 papers), encompasses those papers that use a time span of three years and, at least, 25% of sales in foreign markets.

DISCUSSION

The results of the analysis undertaken above on the theoretical axes adopted in empirical studies on born globals led to identification of six main clusters: relationships/capabilities focussed; challenging Upssala; entrepreneurial strategies; learning devices; entrepreneurial learning networks; and opportunity exploitation. In general, one finds a strong influence of the work by Oviatt and McDougall (1994, 1997) and Madsen and Servais (1997). These early contributions provided research directions which were later carried out by other scholars. In this sense, the role of entrepreneurs in the foundation process, and their previous experience, knowledge and ties emerge as main issues in born global firms. Authors are concerned with teams' entrepreneurial orientation (Lumpkin and Dess, 1996) as well with their managerial competences and their impact on firms' international development, strategies and performance of this kind of firms.

Simultaneously, born global firms may be studied from a resource based perspective. Competing in a volatile environment with stiff competition – where technological disruptions are frequent, life cycles are shorter, and value chains are vertically and internationally disaggregated – demands innovative, differentiated and unique capabilities. To achieve competitive advantage, firms need to possess or control idiosyncratic and valuable resources. There is, therefore, a linkage between entrepreneurship and resource based views. Entrepreneurs with their technical competences provide unique resources for firms. So, it may be argued that, at inception, entrepreneurs are the most valuable resource in born global firms. That is why entrepreneurship and resource based view of the firm are two of most important influences for born global firms (Oviatt and McDougall, 1994). Nevertheless, both approaches have not been fully exploited by extant literature, in spite of some interesting exercises (Knight and Cavusgil, 2004). There is room for further work both on each theoretical axis and on bridging them, as it will be suggested in the next section.

Although closely related to the resource based view, learning approaches have been marginal in the born globals landscape. Only three studies used them to understand those firms with swift internationalisation processes (Autio *et al*, 2000; Bengtsson, 2004; Zahra *et al*, 2000). In such studies, as well as in some others (Autio and Burgel, 1999; Larimo, 2001; Servais and Rasmussen, 2000), experiential knowledge arises as a distinctive feature. May this be interpreted as a rebirth of the Uppsala model? Cavusgil (1994) suggests that this model is ‘dead’. We would not be so drastic, but it seems undisputable that the kind of experiential knowledge Uppsala model focused on does not exactly correspond to the experiential knowledge more relevant for born globals to grow and prosper. For the proponents of the Uppsala model, experiential knowledge is the critical kind of knowledge and “can only be acquired through first- hand experience [...] a clear example is the knowledge people gain about each other when they work together [...] it is not possible to know what a certain person is like and how he functions without doing things together” (Johanson and Vahlne, 2003b:9). This means that market specific knowledge is key for firms to operate abroad. At the same time there is a learning-by-doing process, largely embedded in individuals (Petersen *et al*, 2003). When one looks at born globals, a learning-by-doing strategy is often replaced by the use of professional and personal relationships, with an international scope, sometimes taking the form of a global network. This derives from entrepreneurs’ professional and international experience as well as from their scientific credibility, in the case of academic entrepreneurs. So, one can say that the individual dimension is crucial for experiential knowledge in born globals. Furthermore, it is not concentrated in a specific market; it goes beyond the operational way of dealing with each market to reach an international strategic scope.

Be as it may, there are advantages in exploring the complementarities among different theoretical approaches, recognising that firms previous experience provides them with an

important basis for adaptability in the future (Eisenhardt and Martin, 2000). It seems that traditional concepts need, at best, to be redefined in order to accommodate new conditions and behaviours. These research paths need to be expanded to understand how born globals learn and how their absorptive capacity (Cohen and Levinthal, 1990) is generated and developed. By the same token, and adopting a process perspective, it seems fundamental to incorporate also a dynamic capabilities perspective (Teece *et al*, 1997; Eisenhardt and Martin, 2000).

From the analysis undertaken a third theoretical anchor emerges for the explanation of born global firms: relationships and networking. The vast majority of the studies – in line with Oviatt and McDougall (1994, 1997), Knight and Cavusgil (1996) and Madsen and Servais (1997) – recognise that born global firms are dependent on external partners to overcome their resource limitations as well as the liability of newness. Social capital (Nahapiet and Ghoshal, 1998), the relevance of weak and strong ties (Granovetter, 1973) and the network approach (Johansson and Mattson, 1988) provide useful insights to understand how born globals are able to identify and get access to the resources needed to build up and exploit their competitive advantage. It is argued that, such relationships and ties are important intangible resources that can be mobilised to facilitate the access to, or the acquisition of others, such as money (through friends, business angels or venture capital), human capital, markets or R&D partners. In this sense, it may be appropriate to link born globals with inward movements (Luostarinen, 1979; Oviatt and McDougall, 1994): privileged relationships with multinationals or with large domestic internationalised firms at home, may be among the propellers, or at least the main drivers, of future movements abroad (Burgell *et al*, 2001; Gabriëlsson and Kirpalani, 2004). In some cases, these multinationals may act as ‘godfathers’ abroad (Simões and Dominginhos, 2001). In a similar vein, two studies found that some domestic contexts are better able to facilitate the emergence of born globals, as it happens in

Italian industrial districts (Maccarini *et al*, 2003) and in Portuguese moulds cluster (Sopas, 2001). Firms grow in an environment where there is an inhalation of external contacts, of international mentality, and where making business abroad becomes fundamental for their survival.

Besides the resource based view, there are two main strands of research dealing with strategy issues in born globals. One addresses the ‘traditional’ opposition between strategy formulation and strategy formation in born globals. Spence (2003) concludes that, as born globals act in turbulent environments, where ‘surprises’ are a constant, they adopt flexible strategy making processes, in line with Mintzberg and Waters (1982) and Mintzberg (1989) perspectives. This is also reflected in the view of born globals as opportunity exploiters. The other is concerned with the link between strategy and performance (Aspelund and Moen, 2001; Knight, 1997; Knight and Cavusgil, 2004; Kuivalainen and Sundqvist, 2004; Kuivalainen *et al*; 2004; McDougall *et al*, 2003; Nummela, *et al*, 2004a). In most cases, however, strategy is envisaged only as a moderating variable, influenced by entrepreneurs’ characteristics and competences.

As it was said before, we are still at an infancy age, despite a huge growth of studies in last three years, in born globals research. This clearly emerges from the results on the clustering of operational definitions. In fact, there is a lack of consensus in empirical studies on this regard (Oviatt and McDougall, 1997; Rialp *et al*, 2002). A closer look at this topic suggests that most authors rely, to different extents, on Oviatt and McDougall’s definition (1994: 49) of an international new venture 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.*” In fact, most contributions use these two considerations (time of first sale abroad and share of international sales to total turnover) in defining a firm as born global. However, they largely differ in operationalising them.

With regard to the time frame, six years is the most commonly adopted. The rationale is that six years corresponds to the venture's formative stage (Oviatt and McDougall, 1997). However, one may question whether six years is not a too long time frame in a context where time has 'accelerated'. In fact, several studies considered just a three year period (Almor and Hashai, 2003; Andersson and Wictor, 2003; Simões and Dominginhos, 2001). The downside of a shorter period is the existence of industries, such as biotechnology, where the research phases, in order to get some patentable knowledge, may take more than three years. The question may be solved, however, if the analysis is not restricted to the sale of outputs, but includes also the use of resources coming from different countries, going beyond the manufacturing trap that seems to pervade some literature.

As to the share of international sales, many studies accept less than 25%. In such cases, it seems that what becomes important is to sell abroad. But should this be enough to label a firm as born global? Can we say, for instance, that a firm selling 5% of its turnover abroad "seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries"? We argue that researchers need to be more demanding on this issue. In this vein, the ten studies included in cluster IV require, at least, a 25% share of foreign sales. Despite the lack of scientific basis, as it happens with any specific percentage, the 25% figure clearly translates a commitment to international markets.

Taking the time frame and the share of international sales together, it seems that a relatively coherent cluster emerged, considering a three-year period and a 25% share. This is consistent with the definition proposed by Knight and Cavusgil (1996), and later espoused by other authors (Andersson *et al.*, 2003; Pulkkinen and Larimo, 2003; Simões and Dominginhos, 2001). It may be a good basis for reaching a gradual consensus in operationalising the definition of born globals. Another relevant issue, not fully captured in the clustering exercise, concerns the geographic criterion. Should a geographic spread be

included as an integral part of the definition of born globals? For instance, Luostarinen and Gabrielsson (2002), Karlsen (2003), and Kuivailainen and Sundqvist (2004) imposed that born globals should sell at least in two continents. If one is talking about born globals (and not just about international new ventures²), the two continents requirement seems to be inescapable.

CONCLUSIONS

The 68 empirical studies on born globals identified were subject to an analysis focussed on two issues: theoretical approaches adopted, and operational definitions of born globals. In the first case, a Homals procedure was followed to capture the key dimensions, these being later used in a clustering exercise. In the second, four dimensions were used to clusterize the definitions proposed in empirical studies.

With regard to the first issue, a wide range of theoretical axes was found, revealing the multi-faceted nature of the born globals phenomenon. Ironically, however, international business theories were relatively marginal, the most common reference relating to the ‘denial’ of the Nordic School of internationalisation. Three theoretical dimensions emerged: capabilities; entrepreneurship; and strategy *versus* social capital. These led to identification of six clusters of empirical studies on born globals.

The weakness of international business theoretical perspectives is somewhat surprising, and may be understood as pointing out to a gap in the literature. In fact, born globals cannot be thoroughly and deeply understood if they are envisaged as ‘independent’ from international business theories or just ‘opposed’ to the Nordic school internationalisation

² Despite these two labels are often used interchangeably, Oviatt and McDougall (1994) suggest four types of international new ventures where only one, global start-up is similar in content to a born global. Therefore, strictly speaking born globals are just one type of international new ventures.

paradigm. Such theories should, in our opinion, be considered as an integral part of the theoretical *corpus* to analyse born globals.

On what entrepreneurship is concerned, three promising avenues may be mentioned. First, there is a need to go deeper in the process of ‘identifying’ business opportunities. Are we dealing with a discovery process (Kirzner, 1973; Shane, 2000; 2003) or with a ‘making sense’ perspective (Gartner *et al*, 2003)? Are business opportunities perceived and framed, from the outset, at an international level? Second, different entrepreneurs’ characteristics may influence born globals international scope and management mentalities. To what extent born globals founded by novice, habitual, serial and portfolio entrepreneurs – following Wright and Westhead (1998) and Delmar and Davidson (2000) – differ and how do entrepreneurial types impinge upon firms’ international choices and developments? Similarly, do firms launched by marketing, technical and structural entrepreneurs (Andersson, 2000) follow different international strategies and development patterns? Third, further understanding is needed about internal exploitation *versus* transaction options in pursuing international business opportunities. Are international decisions on this regard influenced by considerations different from national decisions (Shane, 2003)? Does the perceived gap between entrepreneurs’ resources and exploitation requirements widen for international markets, leading to a higher propensity to use licensing arrangements (Arora *et al*, 2001; Grindley and Teece, 1997). Again, it is thought that extant international business theories, namely the internalisation perspective, are much helpful in this regard.

Taking now the resource-based strand, it would be interesting to understand whether different bundles of resources are needed for different phases of born globals lifecycles. This raises, for instance, the question whether, and when, entrepreneurs become less important as resource providers as time goes by, leaving room for international managers to emerge as key players in the process of regenerating the bases for sustaining competitive advantage. This is

closely linked with the traditional opposition, in international business literature, between internationalisation processes and international management of a host of differentiated units abroad. The resource based perspective may be further associated to the relationships issue, as Cluster 1 indicates. Which is the role played by relationships, and their geographical pattern, in born globals development? Do born globals need different types of international ties as their life cycle evolves? And which are the constraints arising from belonging to an international network? Extant theoretical strands may help in this regard. For instance, the literature on international networking may have a positive contribution (Lundan, 2002). Also the concept of relational assets, developed by Dunning (2002), seems to be promising in combining the resource-based view, relationships and current international business approaches (especially the eclectic paradigm) to study born globals.

On what concerns the second issue – born globals operational definitions –, a clear need for convergence came out from the analysis undertaken. In fact, nineteen different ways of characterising a firm as born global were identified. Such a spread is a hindrance for the progress of research on the subject. Forging a consensus about what a born global is becomes essential for enabling comparability as well as for the accumulation of compatible knowledge in the field.

The exercise undertaken above provides a basis for developing an operational definition that may work as a magnet for stimulating convergence. Such a definition should combine a relatively narrow scope with some flexibility to accommodate industry specificities. It should, furthermore, encompass three dimensions: time, geography, and international relevance. As mentioned in the previous sections, an emerging consensus seems to arise on a three-year time period, following Knight and Cavusgil (1996) suggestion. ‘Global’ means wide geographic spread. Doing business in several areas of the home country’s continent seems to be too weak a requirement for a firm to be considered global.

The company should carry out business overseas in at least two continents. Finally, international business should be relevant for the firm. Looking at extant operational definitions, it seems that the 25% share adopted by several authors (Andersson and Wictor, 2003; Hashai and Almor, 2004; Knight, 1997; Pulkkinen and Larimo, 2003; Saarenketo, 2004; Simões and Dominginhos, 2001) is appropriate.

The above considerations lead to suggest the following operational definition of the outbound born-global: ***a firm which, in a time frame of three years since inception, performs business in at least two continents and generates a minimum of 25% of its turnover abroad.***

This definition meets the conditions of narrow scope and flexibility to be accepted as a basis for convergence by born globals scholars. It provides a sound foundation for enhancing inter-study comparability as well as to progress further in the knowledge about born globals behaviour and development. Its only drawback may be the focus on downstream activities. In fact, one finds an increasing number of firms which go global also in upstream value chain areas, namely in R&D activities and manufacturing (often using sub-contracting agreements). These cases should be further investigated, and characterised to enable comparability. This is another interesting avenue for research to be dealt with in future exercises.

References

- Abernathy, W. J. and Utterback, J. M. (1978) 'Patterns of Industrial Evolution', *Technology Review*, June-July, 1978.
- Almor, T. and Hashai, N. (2003) 'Competitive Advantage and Strategic Configuration of Knowledge Intensive, 'Born Global' Firms: A Modified Resource Based View', Proceedings of the 29th EIBA Conference, 11-13 December, Copenhagen, Denmark,
- Andersson, S. (2000) 'The internationalisation of the Firm from an Entrepreneurial Perspective', *International Studies of Management and Organization*, 30(1): 63-92
- Andersson, S. and Wictor, I. (2003) 'Innovative Internationalisation in New firms: Born Globals – the Swedish Case', *Journal of International Entrepreneurship*, 1(3): 249-276
- Andersson, S. Gabrielsson, M. and Wictor, I. (2003) 'Born Globals' Channel Strategies, Proceedings of the 6th McGill Conference on International Entrepreneurship, 19-22 September, University of Ulster, Northern Ireland

- Andersson, S. Gabriëlsson, M. and Victor, I. (2004) 'International Activities in Small Firms: Examining Factors Influencing The Internationalization and Export Growth of Small Firms', *Canadian Journal of Administrative Sciences*, 21(1): 22-34
- Arenius, P. M. (2002) 'Creation of Firm-Level Social Capital, its Exploitation, and the Process of Early Internationalisation', Unpublished PhD Dissertation, Technology University of Helsinki, Helsinki
- Arora, A., Fosfuri, A. E Gambardella, A. (2001) *Markets for technology: The Economics of Innovation and Corporate Strategy*, MIT Press
- Aspelund, A. and Moen, O. (2001) 'A Generation Perspective on Small Firm Internationalisation: From Traditional Exporters and Flexible Specialist to Born Globals', *Advances in International Marketing*, 11: 197-225
- Autio, E. and Burgel, O (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, E. Sapienza, H. and Almeida, J. (2000) 'Effects of Age at Entry, Knowledge Intensity, and Imitability on International Growth', *Academy of Management Journal*, 43(5): 909-924
- Beibst, G., Haase, H. and Lautenschläger, A. (2003), 'The Internationalization of Thuringian Start-up companies in High-Technology Industries', Proceedings of the 6th McGill Conference on International Entrepreneurship, 19-22 September, University of Ulster, Northern Ireland
- Bell, J., (1995) 'The Internationalisation of small computer software firms', *European Journal of Marketing*, 29(8): 60-75
- Bengstonn, L. (2004) 'Explaining born globals: an organisational learning perspective on the internationalisation process', *International Journal Globalisation and Small Business*, 1(1): 28-41
- Bloodgood, J, Sapienza, H and Almeida, J. (1996) 'The internationalisation of new high-potential U.S. ventures: antecedents and outcomes', *Entrepreneurship Theory and Practice*, 20:61-76
- Borsheim and Solberg (2004), 'The Internationalization of Born Global Internet Firms, Proceedings of the 13th Nordic Conference on Small Business Research 10-12 June Tromsø, Norway
- Burgel, O. Fier, A., Licht, G. and Murray, G. (2001) *The rapid internationalisation of high-tech younger firms in Germany and the United Kingdom*, Anglo German Foundation for the Study of Industrial Society
- Cavusgil, T. (1994) 'A quiet revolution in Australian exporters', *Marketing News*, 28(11): 18-21
- Chetty, S and Campbell-Hunt, C. (2004) 'A Strategic Approach to Internationalization: A Traditional Versus a "Born Global" Approach', *Journal of International Marketing*, 12(1): 57-81
- Cohen, W. and Levinthal, D. (1990) 'Absorptive capacity: A new capacity on learning and innovation', *Administrative Science Quarterly*, 35: 28-152
- Coviello, N. and Munro, H. (1995) 'Growing the entrepreneurial firm: networking for international market development', *European Journal of Marketing*, 29(7): 49-62
- Crick, D. and Jones, M. (2000) 'Small High-Technology Firms and International High-Technology Markets', *Journal of International Marketing*, 8(2): 63-85
- Delmar, F. and Davidsson, P. (2000) 'Where do they come from? Prevalence and characteristics of nascent entrepreneurs', *Entrepreneurship and Regional Development*, 12: 1-23
- Dominguinhos, P. (2002) Entrepreneurs as Discoverers: The Case of Portuguese Born Globals, Proceedings of RENT XVI, 21-22 November, Barcelona, Spain, 333-354

- Dunning, J. H. (2002) 'Relational Assets, Networks and International Business Activity', in F.J. Contractor and P. Lorange (eds.), *Cooperative Strategies and Alliances*, Oxford, Pergamon, pp. 569-594
- Eisenhardt, K. e Martin, J. (2000) 'Dynamic Capabilities: What are They?', *Strategic Management Journal*, 21: 1105-1121
- Evangelista, F. (2003) 'Founding a Born Global Company: A Process View', Proceedings of the 6th McGill Conference on International Entrepreneurship, 19-22 September, University of Ulster, Northern Ireland
- Gabrielsson, M. and Kirpalani, M. (2004) 'Born globals: how to reach new business space rapidly', *International Business Review*, 13(5) : 555-571
- Gabrielsson, M. and Pelkonen, T. (2004) Rapid internationalisation of the digital media industry: Market expansion and business operation mode strategies, Proceedings of the 30th EIBA Conference, 5-7 December, Ljubljana, Slovenia
- Gartner, W., Carter, N. and Hills, G. (2003) 'The language of opportunity', in C. Steyaert e D. Hjorth (eds), *New Movements in Entrepreneurship*, Edward Elgar, pp. 103-124
- Granovetter, M. (1973) 'The Strength of Weak Ties', *American Journal of Sociology*, 78: 1360-1380
- Greenacre, M. and Blasius, J. (1994) *Correspondence Analysis in the Social Sciences*, London, Academic Press
- Grindley, P. C. and Teece, D. J. (1997) 'Managing intellectual capital: Licensing and cross-licensing in semi conductors and electronics', *California Management Review*, 39 (2): 8-41
- Hair, J.; Anderson, R.; Tatham, R. and Black, W. (1998). *Multivariate data analysis* (5th ed.). Upper Saddle River: Prentice-Hall
- Hamel, G (1995), 'Foreword', in Stuart Cramer (ed.) *The Financial Times Handbook of Management*, London, Pitman Publishing
- Harverston, P., Kedia, B. and Davis, P. (2000a) 'Internationalisation of Born Global and Gradual Globalizing Firms: The impact of the manager', *Advances in Competitiveness Research*, 8(1): 92-99
- Harverston, P., Kedia, B. and Davis, P. (2000b) 'Internationalisation of Born Global and Gradual Globalizing Firms: The impact of the firm-specific advantage', [www document] www.babson.edu/entrep/fer/XXII/XXIID/html/xxii-l-d.htm, (accessed 6 September 2002)
- Hashai, N. and Almor, T. (2004) 'Gradually internationalizing 'born global' firms: an oxymoron?', *International Business Review*, 13(4) : 465-483
- Johanson, J. and Mattsson, L. G. (1988) 'Internationalisation in industrial systems a network approach', in P. Buckley and P. Ghauri (eds), *Internationalisation of the Firm – A Reader*, International Thomson Business Press, pp. 303-321
- Johanson, J. and Vahlne, J. E. (1977) 'The Internationalisation Process of the Firm', *Journal of International Business Studies*, 8(1): 23-32.
- Johanson, J. and Vahlne, J. E. (1990) 'The Mechanism of Internationalisation', *International Marketing Review*, 7(4): 11-24
- Johanson, J. and Vahlne, J. E. (2003a), 'Business Relationship, Learning and Commitment in the Internationalisation Proces's', *Journal of International Entrepreneurship*, 1(1): 83-101
- Johanson, J. and Vahlne, J. E. (2003b) 'Building a Model of Firm Internationalisation?', in A. Blomstermo and D. Sharma (eds.), *Learning in the Internationalisation Process of Firms*, Edward Elgar, pp. 3-15
- Johanson, Jan and F. Wiedersheim-Paul (1975) 'The internationalisation of the firm – four Swedish cases', *Journal of Management Studies*, Vol. 12 (October).
- Johnson, J. (2004) 'Factors Influencing the Early Internationalization of High Technology Start-ups: US and UK Evidence', *Journal of International Entrepreneurship*, 2(1-2): 139-154
- Jones, M. (1999) 'Patterns, Processes, Decisions: The Internationalisation of Small UK High Technology Firms', *Journal of International Marketing*, 7(4): 15-41

- Karlsen, S. M. (2003) 'The Pace of Internationalization of SMEs – Born Global vs. Gradual Global', Proceedings of 29th EIBA Conference, 11-13 December, Copenhagen, Denmark
- Kirzner, I. (1973) *Competition and Entrepreneurship*, Chicago, University of Chicago Press
- Knight, G. (1997) 'Emerging Paradigm for International Marketing', PhD Dissertation, Michigan State University
- Knight, G. and Cavusgil, T. (1996) 'The Born Globalization: A Challenge to Traditional Internationalisation Theory', *Advances in International Marketing*, 8: 11-26
- Knight, G. and Cavusgil, S. T. (2004) 'Innovation, organizational capabilities, and the born-global firm', *Journal of International Business Studies*, 35(2): 124-141
- Knudsen, T. e Madsen, T. (2002) 'International new Ventures: An Empirical Analysis of some Basic Characteristics', [www document] www.sam.sdu.dk, (accessed 8 November 2003)
- Kuhn, T.S. (1962) *The Structure of Scientific Revolutions*, The University of Chicago Press
- Kuivailainen, O. and Sundqvist, S. (2004) 'International pathways and performance: the difference between Born Globals and 'truly' Born Globals, Proceedings of the 30th EIBA Conference, 5-7 December, Ljubljana, Slovenia
- Kuivailainen, O., Sundqvist, S., Puumalainen, K. and Cadogan, J. (2004) 'The Effect of Environmental Turbulence and Leader Characteristics on International Performance: Are Knowledge-Based Firms Different?', *Canadian Journal of Administrative Sciences*, 21(1): 35-50
- Larimo, J. (2001) 'Internationalisation of SMEs – Two case studies of Finnish born global firms', Proceedings of 27th EIBA Conference, 13-15 December, Paris, France
- Loane, S. and Bell, J. (2002) 'A cross-national comparison of the internationalization trajectories of internet start-ups', *Irish Journal of Management*, 23(2): 53-74
- Loane, S., McNaughton, R and Bell, J. (2004) 'The Internationalization of Internet-Enabled Entrepreneurial Firms: Evidence from Europe and North America', *Canadian Journal of Administrative Sciences*, 21(1): 79-96
- Lumpkin, G, e Dess, G. (1996) 'Clarifying the entrepreneurial orientation construct and linking it to performance', *Academy of Management Review*, 21: 135-172
- Lundan, Sarianna, ed., (2002) *Network Knowledge in International Business*, Cheltenham, Edward Elgar.
- Luostarinen, R. (1979) *Internationalisation of the Firm*, PhD Dissertation, Helsinki School of Economics, Helsinki
- Luostarinen, R. e Gabrielsson, M. (2002) 'Globalization and Global Marketing: Strategies of Born Globals in SMOPECs', Proceedings of 28th EIBA Conference, 8-10 December, Athens, Greece
- Maccarini, M., Scabini, P. and Zucchella, A. (2003) 'International Entrepreneurship and Location – Specific Factors: A Study on Born Globals Firms', Proceedings of 29th EIBA Conference, 11-13 December, Copenhagen, Denmark
- Madsen, T.K and Servais, P. (1997) 'The Internationalization of Born Globals: an Evolutionary process?', *International Business Review*, 6(6): 561-583
- Madsen, T.K., Rasmussen, E.S., and Servais, P. (2000) 'Differences and Similarities Between Born Globals and Other Types of Exporters', In A. Yaprak & J. Tutek, (eds.) *Globalization, the multinational firm, and emerging economies*, (Advances in International Marketing, 10). Amsterdam: JAI/Elsevier Inc.: pp. 247-265
- McAuley, A. (1999) 'Entrepreneurial Instant Exporters in the Scottish Arts and Crafts Sector', *Journal of International Marketing*, 7(4): 67-82

- McDougall, P. and Oviatt, B. (1996) 'New venture internationalisation, strategic change and performance: a follow-up study', *Journal of Business Venturing*, 11: 23-40
- McDougall, P. Shane, S., and Benjamin M. Oviatt (1994) 'Explaining the Formation of International New Ventures: The Limits of Theories from International Business Research', *Journal of Business Venturing*, 9 (6): 469-487
- McDougall, P., Oviatt, B. and Shrader, R. (2003) 'A Comparison of International and Domestic new Ventures', *Journal of International Entrepreneurship*, 1(1): 59-82
- McNaughton, R. (2003) 'The Number of Export Markets that a Firm Serves: Process Models versus the Born Global Phenomenon', *Journal of International Entrepreneurship*, 1(3): 297-312
- Mintzberg, H. (1989) 'Crafting Strategy', *Harvard Business Review*, July-August, 66-75
- Mintzberg, H. and Waters, J. (1982) 'Tracking Strategy in an Entrepreneurial Firm', *Academy of Management Journal*, 25(3): 465-499
- Moen, Ó. and Servais, P. (2002) 'Born Global or Gradual Global? Examining the Export Behaviour of Small and Medium Sized Enterprises', *Journal of International Marketing*, 10(3): 49-72
- Moen, Ó., (2002) 'The Born Globals: A new generation of small European exporters', *International Marketing Review*, 19(2): 156-175
- Nahapiet, J. and Ghoshal, S. (1998), 'Social Capital, Intellectual Capital, and the Organizational Advantage', *Academy of Management Review*, 23(2): 242-266
- Nummela, N., Saarakento, S. and Puumalainen, K. (2004a) 'A Global Mindset – A Prerequisite for Successful Internationalisation?', *Canadian Journal of Administrative Sciences*, 21(1): 51-64
- Nummela, N., Saarakento, S. and Puumalainen, K. (2004b) Rapidly with a Rifle or more Slowly with a Shotgun? Stretching the Company Boundaries of Internationalising ICT Firms, *Journal of International Entrepreneurship*, forthcoming
- Oviatt, B. and McDougall, P. (1994) 'Toward a Theory of International New Ventures', *Journal of International Business Studies*, 24: 45-64
- Oviatt, B. and McDougall, P. (1995) 'Global start-ups: Entrepreneurs on a worldwide stage', *Academy of Management Executive*, 9(2): 30-43
- Oviatt, B. and McDougall, P. (1997) 'Challenges for Internationalisation Process Theory: The Case of International New Ventures', *Management International Review*, 37 (2): 85-99
- Petersen, B, Pedersen, T. and Sharma, D. (2003) 'The Role of Knowledge in Firms' Internationalisation Process: Wherefrom and Whereto?', in A. Blomstermo and D. Sharma (eds.), *Learning in the Internationalisation Process of Firms*, Edward Elgar, pp. 36-55
- Petersen, B. and Pedersen, T. (1997) 'Twenty years after – supported and critique of the Uppsala internationalisation model', in Ingmar Björkman and Mats Forsgren, eds., *The Nature of the International Firm – Nordic Contributions to International Business Research*, Copenhagen, Handelshøjskolens Forlag, pp. 117-134
- Phiri, T., Jones, M. and Wheeler, C. (2004) 'Returning to the field in internationalisation: an exploratory study of contemporary small firms in the advanced medical products industry', in M. Jones and P. Dimitratos (eds), *Emerging Paradigms in International Entrepreneurship*, Edward Elgar, pp. 249-275
- Prashantham, S. (2003) 'The Internationalisation of Small Knowledge-Intensive Firms: Leveraging Foreign Network Relationships for International Market Entry', Proceedings of the 6th McGill Conference on International Entrepreneurship, 19-22 September, University of Ulster, Northern Ireland
- Pulkinnen, J. and Larimo, J. (2003), 'Variety in Born Globals: A Study of the Internationalization Behaviour and Development of Eight Finnish Born Global Firms', Proceedings of 29th EIBA Conference, 11-13 December, Copenhagen, Denmark
- Rasmussen, E.S. and Madsen, T. (2002) 'The Born Global Concept' Proceedings of 28th EIBA Conference, 8-10 December, Athens, Greece

- Rasmussen, E.S., Madsen, T.K., and Evangelista, F. (2001) 'The Founding of the Born Global Company in Denmark and Australia: Sensemaking and Networking', *Asia Pacific Journal of Marketing and Logistics*, 13(3): 75-107
- Rennie, M. (1993) 'Global Competitiveness: Born Global', *McKinsey Quarterly*, 4, 45-52
- Rialp, A., Rialp, J., and Salas, V. (2002) 'Faster and Highly Successful Exporters: an Explanation of Born Globals Firms from the Resource Based-View', Proceedings of RENT XVI, 21-22 November, Barcelona, Spain, pp. 355 - 387
- Rialp, A., Rialp, J., e Knight, G.A. (2002) 'The Phenomenon of International New Ventures, Global Start-ups, and Born-Globals: What Do We Know After a Decade (1993-2002) of Exhaustive Scientific Inquiry?'. Proceedings of the 28th EIBA Conference, 8-10 December, Athens, Greece
- Rialp, A., Rialp, J., Urbano, D. e Vaillant, Y. (2003) The Born-global Phenomenon: A Multiple Case Study Research n Spain , [www document) www.uab.es (accessed 18 November2003)
- Saarenketo, S. (2004) 'Born Global Approach to Internationalization of High Technology Small Firms – Antecedents and Management Challenges, in R.P. Oakey, W. Daring and S. Kauser (eds.) *New Technology-Based Firms in the New Millennium*, Volume III, Pergamon, pp. 301-317
- Schlange, L and Lehmann, R. (2004) 'Born Globals, Traditional Exporters, and Export Promotion Programs – Empirical evidence from the Swiss case', Proceedings of the 30th EIBA Conference, 5-7 December, Ljubljana, Slovenia
- Servais, P. and Rasmussen, E.S. (2000) Different Types of International New Ventures', Proceedings of Academy of International Business (AIB), November Phoenix, AZ., EUA, pp. 1-27.
- Shane, S. (2000) 'Prior Knowledge and the Discovery of Entrepreneurial Opportunities', *Organization Science*, 11(4): 448-469
- Shane, S. (2003) *A General Theory of Entrepreneurship: The Individual Opportunity Nexus*, Edward Elgar
- Sharma, D. and Blomstermo, A.(2002), 'The Internationalization Process of Born Globals', Proceedings of RENT XVI, 21-22 November, Barcelona, Spain, pp. 306 – 332
- Sharma, S. (1996) *Applied Multivariate Techniques*, USA, John Wiley and Sons.
- Simões, V. C. and Dominginhos, P. (2001) 'Portuguese Born Globals: An Exploratory Study', Proceedings of the 27th EIBA Conference, 8-10 December, Paris, France
- Sopas, L. (2001), 'Born Exporting in regional clusters: preliminary empirical evidence', in Taggart, J H., Berry, M. e McDermott (eds.) *Multinationals in a New Era*, Basingstoke:Palgrave, pp. 29-46
- Spence, M. (2003) 'International Strategy Formation in Small Canadian High-Technology Companies', *Journal of International Entrepreneurship*, 1(3): 277-296
- Spence, M. (2004) 'Efficiency and Personalization as Value Creation in Internationalizing High-Technology SMEs', *Canadian Journal of Administrative Sciences*, 21(1): 65-78
- Spence, M. and Crick, D. (2003) 'The Internationalisation of U. K. and Canadian High-Tech SMEs. A Comparative Study of Planned and Unplanned Ventures', Proceedings of the 6th McGill Conference on International Entrepreneurship, 19-22 September, University of Ulster, Northern Ireland
- Sperling, G. (2003) 'Strategies for Early, Rapid Globalization, Proceedings of 29th EIBA Conference, 11-13 December, Copenhagen, Denmark
- Teece, D. J., G. Pisano and Shuen, A. (1997) 'Dynamic Capabilities and Strategic Management', *Strategic Management Journal*, 18(7): 509-533

- Tenehaus, M. and Young, F. (1985) 'An Analysis and Synthesis of Multiple Correspondence Analysis, Optimal Scaling, Dual Scaling, Homogeneity Analysis, and other Methods for Quantifying Categorical Multivariate Data', *Psychometrika*, 50(1): 91-119
- Wakkee, I. (2004) 'Starting Global: An Entrepreneurship-in-networks approach', PhD Dissertation, University of Twente
- Ward, Jr. J. H. (1963) 'Hierarchical Grouping to Optimize an Objective Function', *Journal of the American Statistical Association*, 58: 236-244
- Westhead, P. and Wright, M. (1998) 'Novice, Portfolio, and Serial Founders: Are They Different?', *Journal of Business Venturing*, 13: 173-204
- Wickramasekera, R. and Bamberry, G. (2001) 'Born globals within the Australian wine industry: an exploratory study', *Working Paper* n°1/01, University of Charles Sturt, Wagga
- Wright, M., Westhead, P. and Sohl, J. (1998) 'Habitual entrepreneurs and angel investors', *Entrepreneurship Theory and Practice*, 22(4): 5-21
- Zahra, S., Ireland, R. and Hitt, M. (2000) 'International Expansion by new venture firms: International diversity, mode of market entry, technological learning and performance', *Academy of Management Journal*, 43(5): 925-950

Figure 2 – Clusterization according dimensions obtained in HOMALS procedure

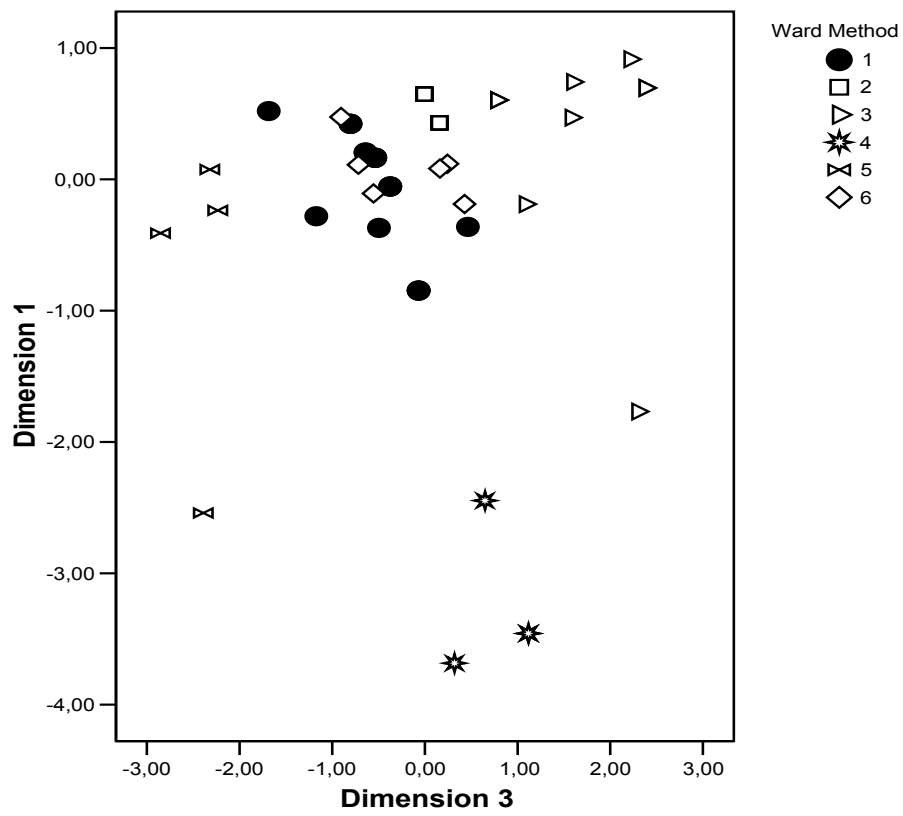
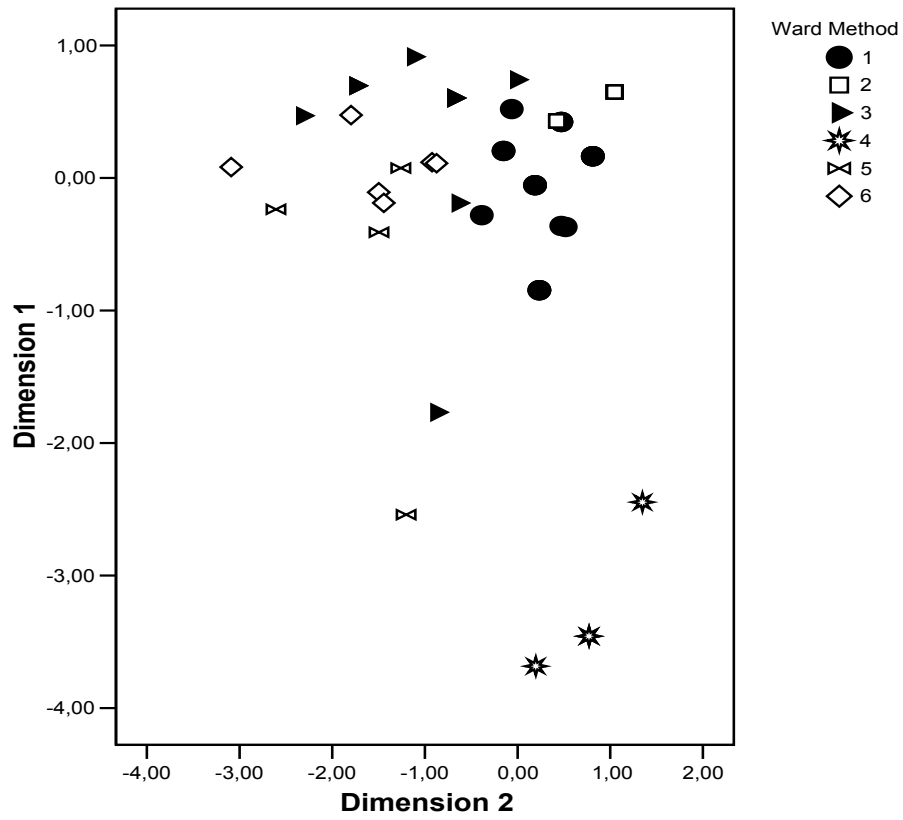


Figure 3 – Typology of Empirical Literature on Born Globals
Uppsala

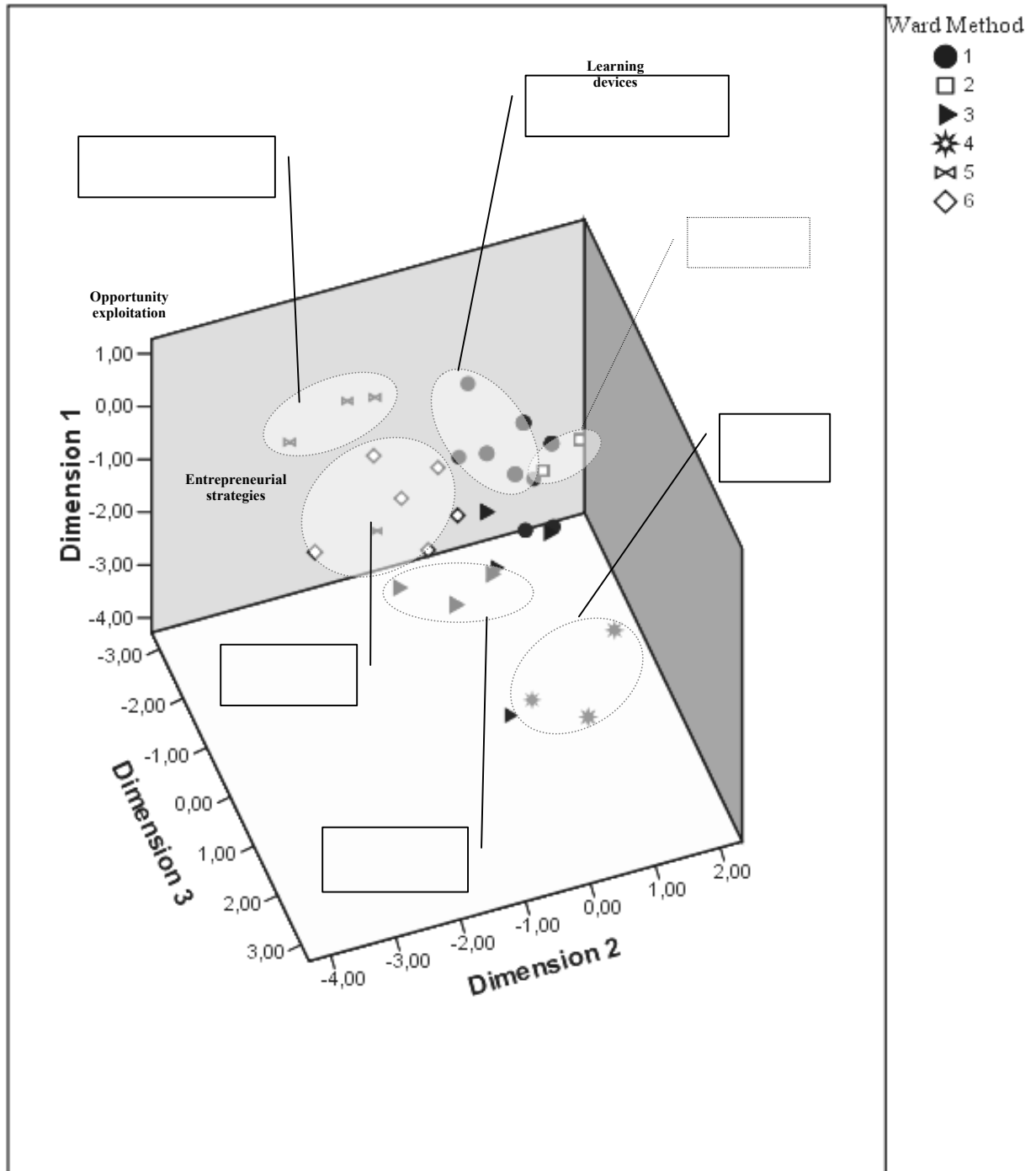
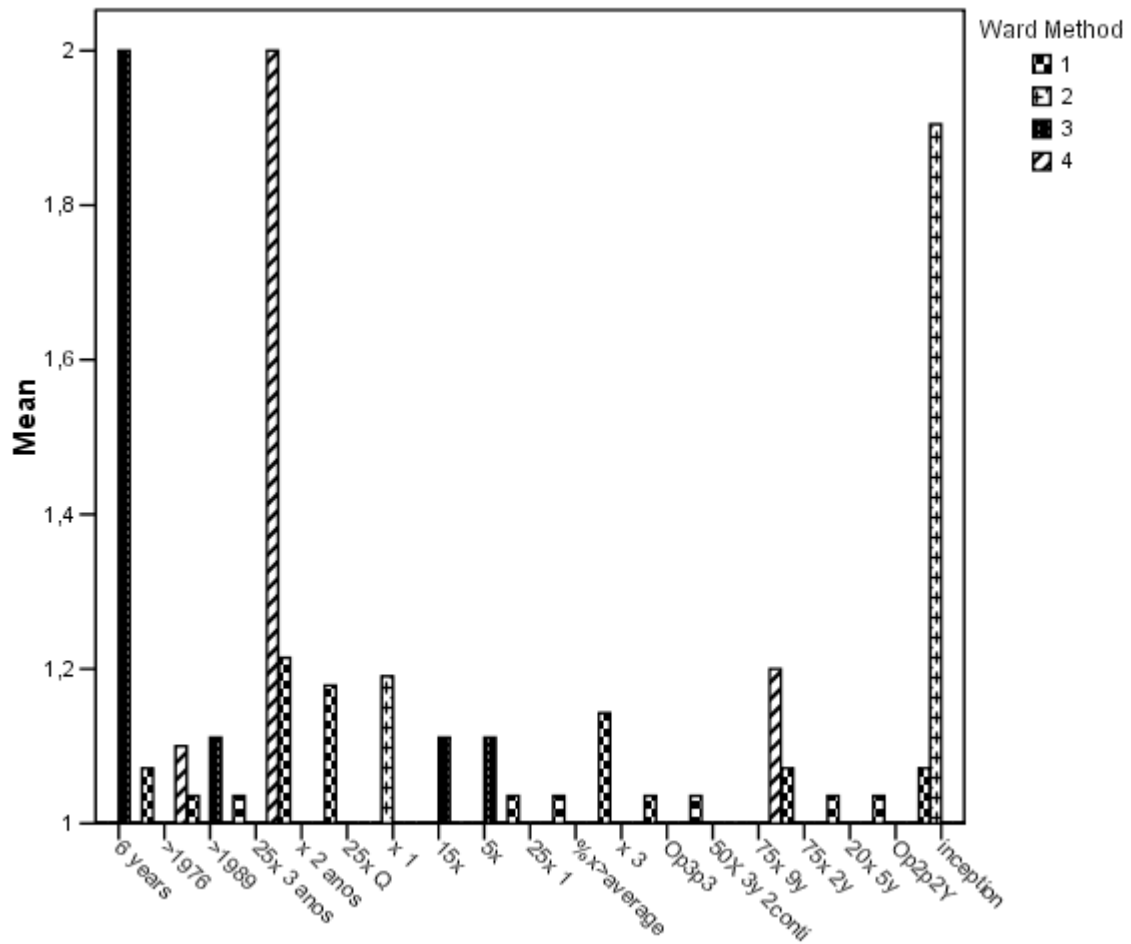


Figure 5 – Clusters of Definitions used in empirical papers



Note: The categories presented in the chart are - sales abroad in first six years; firms created after 1976; firms created after 1989; 25% of exports in first three years; exports in first two years; 25% of exports in any temporal frame; exports in first year; 15% of exports; 5% of exports; 25% of exports in first year; % of exports above the average of the firms in same industry; exports in first three years; operations in first three years in three different countries; 50% of exports in first three years in, at least two continents; 75% of exports in first nine years; 20% of exports in five years; operations in two countries in two years; international since inception.

Table 1 – Eigenvalues of each dimension and variance for theoretical approaches

Dimension	Eigenvalue	Fit
1	,279	
2	,184	,592
3	,129	

Table 2 - Discrimination Measures for each dimension

	Dimension		
	1	2	3
Theoretical approaches	<u>(.279)</u>	<u>(.184)</u>	<u>(.129)</u>
Nordic school	,069	<u>.242</u>	,009
Born Globals previous results	<u>.332</u>	,034	,085
Networks	,061	,170	<u>.161</u>
Social capital	,010	,311	<u>.350</u>
Entrepreneurship	,031	<u>.552</u>	,083
Knowledge management	<u>.771</u>	,011	,002
Resource based view	<u>.538</u>	,001	,017
Learning	<u>.697</u>	,016	,096
Strategy	,006	,318	<u>.353</u>

Table 3 – Category Quantification for theoretical dimensions

Theoretical Approach	Category Quantifications		
	Dimension		
	1	2	3
Nordic school		0,666	
Born Globals previous results	0,412		
Networks			-0,695
Social capital			-1,747
Entrepreneurship		-1,459	
Knowledge management	- 3,117		
Resource based view	-1,670		
Learning	-2,962		
Strategy			1,628