

## **Do Born Global Firms Represent a Truly Distinct Type of Organisation?**

### **ABSTRACT**

Using two extensive surveys of Australian exporters, this paper explores two issues. First of all, it tests whether born global firms truly represent a distinct type of organisation by examining the pattern of early market selection. The results indicate that born global firms do indeed behave in distinct fashion; and thus, are worthy of independent study. In light of this result, the authors then test whether many of the generalisations and theories that have been put forward over the past decade to explain why some firms behave in a 'born global' manner, while others do not, hold across a broad population of such firms.

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The field of research concerning what is commonly referred to as a ‘born global firm’ (Cavusgil, 1994) is now at an inflection point. This concept, and other closely related ones such as Oviatt and McDougall’s (1994) ‘international new venture’, first reared its head in the international business literature more than ten years ago (Rennie, 1993). It has since progressed from being a set of anecdotal and/or incidental observations (Economist, 1993; Holstein and Kelly, 1992; McKinsey, 1993), to the focus of case studies (Bell, *et al.*, 2001; Chetty and Campbell-Hunt, 2004; Jolly, *et al.*, 1992; McDougall, *et al.*, 1994), and the subject of numerous review articles, each attempting to draw together a coherent theory of the ‘born global’ (Knight and Cavusgil, 1996; Oviatt and McDougall, 1994). We contend that it is now time for greater emphasis on systematic and rigorous testing of the concept, and the related hypotheses.

In putting forward this argument, we do not want to deny the existence of rigorous empirical research concerning born global (BG) firms. There have been many excellent efforts, particularly concerning the antecedents of performance amongst BG firms (Autio, *et al.*, 2000; Knight and Cavusgil, 2004; McDougall and Oviatt, 1996; Zahra, *et al.*, 2000), but these articles are predicated on a particular assumption – that the born global firm represents a truly distinct type of organisation; and thus, is worthy of independent study. Moen and Servais (2002, 49) highlight this issue when they question “whether this actuality [the observation of numerous firm internationalising at an early age] indicates simply a reduced time factor in the preexport phase or an important change in the export behaviour of firms”. Responding to that call is the contribution of this article. Using two extensive surveys of Australian exporters, this paper sets out to confirm two issues. First of all, do born global firms represent a distinct type of organisation? Secondly, if the first question is answered in the affirmative, do the generalisations and theories that have been put forward over the past decade about why some firms behave in a ‘born global’ manner, while others do not, hold across a broad population of such firms.

## THE ORIGINS OF THE CONCEPT

The first reference to the term born global appears to have been made by Rennie (1993). During an investigation into ‘emerging’ Australian exporters on behalf of the Australian Manufacturing Council, the McKinsey & Co consultants observed that approximately one quarter of the firms began exporting in substantial quantities very early in their organizational lifespan. Regardless of whether one subscribes to the Uppsala internationalization model (Johanson and Vahlne, 1977; Johanson and Wiedersheim-Paul, 1975) or the innovation-based internationalization model (Bilkey and Tesar, 1977; Cavusgil, 1980), both models predict that firms will first develop a strong domestic base; and then gradually expand internationally in discrete stages. Thus, the Australian data seemed to indicate that a substantial number of firms did not conform to ‘traditional theory’. This observation was quickly picked up by Cavusgil (1994), and a ‘theory of the born global’ and a formal definition were soon developed (Knight and Cavusgil, 1996).

In parallel to this, similar observations and conclusions were emerging from the ‘entrepreneurship’ research literature (Jolly, *et al.*, 1992; McDougall, *et al.*, 1994; Oviatt and McDougall, 1994). McDougall, *et al.* (1994) coined the term ‘international new venture’; however, the distinction between this and the concept of a ‘born global’ firm was largely semantic, and subsequent researchers have tended to treat them as a single construct (e.g. Moen and Servais, 2002). For the purposes of this research agenda, we shall do the same. For convenience, we employ the single term: ‘born global’, and use a modified version of Knight’s definition (1996, 11) of born global firms as:

**“small ... companies that operate in international markets on a substantial scale from the earliest days of their establishment”.**

However, we intend the term born global, and the above definition, to encompass both streams of research. In our adaptation of Knight and Cavusgil’s definition, two modifications have been made. The phrase ‘technology-oriented’ has been dropped from their original definition as it is a restrictive

condition, which in our opinion, is not necessarily justified. It may be a common characteristic of born global firms, but researchers have observed ‘born global-like’ firms in a wide variety of industries (Chetty and Campbell-Hunt, 2004; Madsen, *et al.*, 2000). This issue will be the focus of one of our hypotheses. The second modification to the definition is the addition of the phrase ‘*on a substantial scale*’. From the earliest observations (McKinsey, 1993), born global firms have been characterised by substantial levels of internationalisation. Even Knight and Cavusgil (2004) themselves impose a criterion of > 25% international sales when identifying born global firms.

As previously mentioned, born global firms have been the focus of numerous articles recounting related case studies, and articles attempting to reconcile these observations with existing internationalisation theories. In terms of large sample-size empirical investigations, a variety of authors have focussed on born global firms, or at least, have included them in investigations into the antecedents of international performance (Autio, *et al.*, 2000; Knight, 1997; Knight and Cavusgil, 2004; McDougall and Oviatt, 1996; Zahra, *et al.*, 2000), the degree of internationalisation (Bonaccorsi, 1992; Preece, *et al.*, 1999), and entry modes (Burgel and Murray, 2000). However, very few studies have explicitly compared born global firms with non-born global firms in a rigorous, empirical manner. Madsen et al (2000) clearly raises the issue, but addresses it descriptively, with no formal hypotheses and few statistical tests. Knight (1997) and a pair of related European studies (Aspelund and Moen, 2001; Moen, 2002) employ a more rigorous methodology, but adopt a rather perplexing set of criteria for distinguish between born global and non-born global firms. They all use the date in which each firm is established as their discriminating factor, rather than the age at which each firm begins international activities. This choice is curiously at odds with almost all of the commonly cited definitions of born global firms. Their sub-samples of younger firms are likely to contain a high proportion of born global organisations, but in our opinion, it is a weak operationalization of the born global construct. This leaves, to our knowledge, Moen and Servais (2002) as the only empirical study to have rigorously and effectively explored the differences between born global and non-born global firms across a large sample population. They found born global firms had

higher levels of export intensity, a greater degree of global orientation, and exported to more markets, to geographically more distant markets, and to psychically more distant markets. These results appear to endorse the concept of the born global firm as a distinct type of organisation, but substantially more work needs to be done. That is where this study makes its contribution. In the following section, we shall layout a 'theory of the born global firm' based on work by numerous authors ranging from Hymer (1976) to the work of Oviatt and McDougall (1994), Knight and Cavusgil (1996), and Autio, et al (2000). From this, we will develop a series of hypotheses concerning critical differences between born global firms and firms which follow a more traditional stages approach to internationalisation.

## A THEORY OF THE BORN GLOBAL

In the process of describing a theory of the born global firm, particularly with an eye to distinguishing such firms from those following a more classic stages approach, we will start with Hymer's monopolistic advantage theory (Hymer, 1976). Hymer argues that a firm may possess a unique source of advantage over other firms. Such advantages may be a patented or proprietary product technology, a process technology, or superior knowledge concerning market opportunities, just to name a few. If the firm does possess such an advantage, the firm may choose to expand internationally in order to exploit this advantage to a greater extent at a very low marginal cost. We identify those specific 'knowledge-based' monopolistic advantages because it is entirely possible that an individual, or a small number of individuals, (our potential entrepreneurs) may possess such monopolistic advantages. Whereas, Hymer would argue that a budding MNE would obtain these advantages from its existing domestic operations; our budding entrepreneurs might obtain these advantages from their previous experience(s), or they might come into their possession as a result of a more random 'creative' process. Nevertheless, the budding entrepreneurs in possession of such advantages are faced with a decision: where do they exploit their monopolistic advantage?

Our entrepreneurs must weigh up several issues in deciding where to initially compete.

1. They might decide to immediately **exploit their advantage across as large a set of markets as possible** (i.e. compete in multiple countries from a very early stage). This may be particularly attractive or necessary under particular circumstances, such as if the marginal cost of the product is low compared to the total cost. Differences in consumer preferences amongst markets will have the opposite tendency - of reducing the size and attractiveness of the opportunity.
2. However, the concept of psychic distance from the Uppsala stages model intervenes at this point. Psychic distance is the bundle of factors which interfere with the flows of information between markets (Johanson and Wiedersheim-Paul, 1975). While psychic distance may be present between any two markets, it is generally accepted that the psychic distance amongst countries is greater than within most countries; though this obviously will depend on the homogeneity of the population within a country. One impact of large psychic distances amongst countries is that it may create **uncertainty about the size of the monopolistic opportunity** in some foreign markets. This may reduce the attractiveness of competing across as large a set of markets as possible.
3. Other trade resistance factors, beyond psychic distance, such as transportation costs, tariff barriers, and non-tariff barriers, may also **increase the marginal cost of exploiting the monopolistic advantage in particular foreign markets.** Once again, this may reduce the attractiveness of competing across as large a set of markets as possible.
4. Our entrepreneurs also need to consider that, in contrast to an existing firm with an established set of domestic operations, the new organisation they are about to create is likely to be **substantially more resource constrained.** Oviatt and McDougall (1994, 55) refer to this as “their poverty of resources”. In this situation, we are not only referring to financial and other tangible assets, but also resources in the sense of Penrose’s (1959) concept of the ‘managerial capacity’ of a firm. The firm may not have the capacity to exploit all the viable opportunities at once.

Once a firm has weighed up these four issues and has made this critical choice, their subsequent investments in assets and resources, as well as the resulting culture, attitudes and organisational routines within the firm, will develop in patterns which reinforce that initial decision. If a firm chooses to internationalize at an early and formative stage (i.e. to follow a born global path), its entire asset base and organisational structure will develop in a fashion predisposed to internationalisation. This in turn will influence subsequent internationalisation decisions. Autio et al (2000, 911) argue that “when in its history a firm first goes international impacts how quickly it will learn in the international market and how great an impact the learned knowledge will have on its subsequent international growth”. Thus, if firm commits early to internationalisation, that pattern will be reinforced, and its internationalisation will very likely accelerate – ergo, a born global firm.

Conversely, if the newly formed firm balks at internationalisation at this early stage, that pattern will also tend to be reinforced. McDougall et al (1994, p481) refer to firms following the “domestic path dependence” route. The assets, resources, organisational routines, attitudes and culture will evolve to suit the domestic market needs. This will strengthen the view within the firm that domestic expansion is a better use of scarce resources than international expansion. The firm will only tend to break out of this self-reinforcing situation (or ‘state’ to use the Uppsala terminology) when it is provoked by either internal or external stimuli. Unsolicited orders by foreign customers is a commonly cited external stimulus (Cavusgil, 1980); whereas, excess capacity, both in terms of physical assets and managerial capabilities, is a commonly cited internal stimulus (Wiedersheim-Paul, *et al.*, 1978). Of course, a firm will only tend to shift from a ‘poverty of resources’ to an ‘excess of resources’ after it has established itself, and is beginning to exhaust the opportunities in its existing markets. Hirsch and Adar (1974) explain this in more classic economic terms when they predict a positive relationship between firm size and export intensity. If and when, the non-born global firm finally does decide to internationalise, it will tend to do so in a slower and more gradual pattern since “the internationalizing firm faces the dual challenge of overcoming rigidities and taking on novel knowledge” (Autio, *et al.*, 2000, 911).

Ultimately, the decision of whether a firm attempts to exploit its monopolistic advantages across multiple markets very early in its corporate life, is a complex trade off. The theory portrayed here cannot deterministically predict how a new venture will respond, but it does lay out the potential paths the firm might follow, and identifies the key factors that are likely to influence that choice. Empirical evidence emerging in the 1970's and 80's (Bilkey and Tesar, 1977; Cavusgil, 1980; Johanson and Wiedersheim-Paul, 1975) seemed to indicate that the majority of firms at that time favoured an early focus on their domestic market, leaving the foreign opportunities to a later time when they were less resource constrained. Nevertheless, based on our reanalysis of a landmark Australian dataset (McKinsey, 1993), from amongst the Australian exporting firms that were founded prior to 1960, 9% of them exported within the first two years of operation. Thus, firms following a born global path are not an entirely new phenomenon. Nevertheless, recent studies seem to indicate that the proportion of born global firms is increasing (Madsen, *et al.*, 2000). Advances in telecommunications, declining transportation costs, and reductions in tariff and non-tariff barriers are frequently cited trends contributing to this rising incidence of born global firms. Each of these factors is reducing the marginal cost of exploiting the monopolistic opportunity; thus increasing the likelihood that new firms will choose the born global path.

## HYPOTHESES

Regardless of any arguments about the relative proportions of born global firms amongst the larger set of international firms, this paper focuses on two more fundamental questions: are born global firms a truly distinct type of organisation; and if so, can we confirm why some firms follow a born global path, while others follow the path of developing a domestic base first, and internationalising at a slower pace? Exploring the first of these two issues is more difficult than it first appears. Since born global firms have traditionally been identified by a combination of their age at first internationalization and degree of internationalization, those dimensions cannot be used to prove that they represent a distinct type of firm. As Moen and Servais (2002) suggest, the numerous observations of firms moving international at a 'surprisingly' young age may be nothing more than symptoms of an acceleration of the pre-export phase.

Taking an even more extreme position, given some of the recent vocal criticisms of the stages models of internationalization (Andersen, 1993), one might interpret these observations as an indication that the stages models of internationalization are flawed, and that 'firm age at first internationalization' is an irrelevant dimension. In contrast, our portrayal of the 'theory of the born global', which we believe is in agreement with both of the major proponents in this field (Knight and Cavusgil, 1996; Oviatt and McDougall, 1994), suggests that these observations are evidence of a different type of organisation. The stages models are not necessarily incorrect, but rather incomplete in that they portray only one of the possible paths that a firm might follow as it internationalizes. To test this proposition, we shall use a distinct aspect of firm internationalisation behaviour as our criterion variable: market selection, to prove that born global firms behave in a different manner.

Oviatt and McDougall (1994) argue that the experiences and attitudes of the founding entrepreneurs are a significant set of factors in explaining the behaviour of born global firms. This observation is based on the fact that psychic distance is not a static phenomenon. One person's perception of the psychic distance between two countries will differ from another person's perception; and a person's perception of that same psychic distance will change over time with experience. This observation is a cornerstone of the Uppsala stages model. As a firm commits to a specific market and gains experience, the firm's perception of the psychic distance of all markets will shift downwards. With respect to whether a new firm follows a born global path, psychic distance becomes involved in a slightly different fashion. If one or more of the entrepreneurs have had substantial international exposure, say through prior work experience or education, they will tend to perceive psychic distances as lower, and thus the newly formed firm is more likely to make an early commitment to international markets. Thus, a reduced sensitivity to psychic distance plays a key role in born global firms.

Fortunately for us, psychic distance not only affects the decision of whether to expand internationally, but also the choice of where firms expand to. If the managers of born global firms have a more 'global orientation', and thus are less influenced by psychic distance, then they will tend to enter a different mix

of markets in the early stages of internationalisation. Non-born global firms will tend to enter more psychically proximate markets, while the born global firm's market selection will tend to be dominated by other factors. Thus, we can use the pattern of early market selection as a criterion variable for testing whether born global firms are a distinct type of firm.

**H1 The pattern of foreign markets that a firm enters in the early stages of internationalisation will be different for born global firms, when compared to non-born global firms.**

This first hypothesis essentially allows us to test whether born global firms do indeed behave in a different manner from non-born global firms; and thus, are worthy of independent study. However, its confirmation does not ensure that all aspects of our proposed 'theory of the born global' are correct. This moves us on to our second research question: why are born global firms different? To begin to answer this, we need to develop and test a second wave of hypotheses that relate to the underlying factors put forward in the model. The logical starting point is to return to the role of psychic distance and market selection. As previously argued, our theory predicts that born global managers may have greater previous international experience, that will lead to a more global orientation, which will reduce the manager's sensitivity to psychic distances, and thus the manager will be more likely to select psychically distant markets. Moen and Servais (2002) have already confirmed differences in the degree of global orientation between born global and non-born global managers, but the final link in that sequence of logic has not been tested to our knowledge. If psychic distance does play a significant role in the theory of the born global firm, as suggested by McDougall and Oviatt (1994), then the relationship between psychic distance and early market selection should be a substantially weaker amongst born global firms.

**H2 The relationship between psychic distance and early market selection will be weaker for born global firms than it is for non-born global firms.**

This second hypothesis implies that a key distinction between a born global firm and a non-born global firm is internal to the firm – the experiences and attitudes of the founding entrepreneurs. An

alternative set of explanations might be that the key distinctions between born global firms and non-born global firms are external to the firm – i.e. they pertain to the nature of the products, industries and segments that the firms are competing in. This view forms the basis of our next four hypotheses.

As mentioned earlier, the degree of homogeneity in customer preferences across nations will influence the magnitude and attractiveness of the ‘foreign opportunities’. This may in turn make the ‘born global’ path more attractive, particularly if there is a limited time horizon within which the firm is able to exploit its monopolistic advantage. This phenomenon may arise as the result of more internationally-oriented firms consciously seeking out markets with greater homogeneity of demand, or it may arise from a more population-ecology type process; either way one would expect born global firms to be systematically more prevalent in industries and market segments with a high degree of homogeneity in customer preferences across countries.

**H3 Differences in customer preferences across markets will be lower for born global firms than it is for non-born global firms.**

In a similar fashion, one would expect born global firms to be more prevalent in industries and market segments where transportation costs are lower. This reduces the marginal cost of international sales, thus increasing its attractiveness relative to domestic sales, and raising the likelihood that the firm will follow a born global approach to internationalization.

**H4 Transportation costs will be lower for born global firms than it is for non-born global firms.**

Another relatively consistent observation with respect to born global firms is their preference for focussing on market niches (Chetty and Campbell-Hunt, 2004; Knight and Cavusgil, 1996; McKinsey, 1993; Moen, 2002). This prediction is not immediately obvious from the theory presented in this paper, but it may be arising from a complex mixture of those same factors. We have already have argued that many of the entrepreneurs come into possession of a monopolistic advantage through their previous

experience. This is more likely to be the case if that advantage pertains to a niche market – the entrepreneur’s previous institution (employer or otherwise) is less like to dispute the ownership rights if the potential market for the advantage is small. But by the same token, if the potential demand in any one country is small, exploiting multiple markets becomes more critical in order to achieve breakeven. Thus, if the monopolistic advantage does pertain to a niche product, then the new firm is more likely to internationalise early. The niche focus may also benefit the new firm by lowering the initial investment required in a large scale distribution network – an important issue when the firm is resource constrained. A more concentrated set of potential customers allows a greater degree of personal selling, an attribute endorsed by Knight (1997).

**H5a Born global firms will tend to have a narrower customer/product focus, relative to their competitors, than non-born global firms.**

**H5b Born global firms will tend to compete in industries and market segments with a more concentrated set of potential customers, than non-born global firms.**

Another common, but contentious observation with respect to born global firms is their link to high technology and knowledge-based industries. The linkage here is so strong that Knight and Cavusgil (1996) explicitly included the term in their definition. Other researchers (Chetty and Campbell-Hunt, 2004; Madsen, *et al.*, 2000) argue that born global firms made be found in a broad range of industries. In light of our theory, a high technology focus does not appear to be a mandatory precondition, but technology-based market opportunities may be more conducive to a firm following a born global path for reasons which pertain to two of our three preceding hypotheses. As Autio, et al (2000, 913) point out: “knowledge ... is a mobile resource”. The bias towards high technology may simply be acting as a surrogate for our fourth hypothesis – low transportation costs. Another factor which may be embedded in the high technology bias is the fact that technological break-throughs are typically based on mechanical and physical aspects of the product. These characteristics will not change across national boundaries, and thus, high technology may be acting as a surrogate for greater homogeneity of customer preferences, our

third hypothesis. Autio et al (2000, 913), have also argued that firms that specialise in knowledge-related ideas will be more effective in their learning capacities. This may result in them “perceiving opportunities for continued or accelerated foreign expansion as being less costly”. The net result is that firms which operate in high technology industries and/or compete based on knowledge-related advantages are more likely to follow a born global path.

**H6a Born global firms will tend to be more prevalent in high technology industries than in low technology industries.**

**H6b Born global firms will tend to be more prevalent amongst firms which compete based on a knowledge-related advantage, than amongst firms which compete on other bases.**

The final hypothesis is a proposition concerning the relative performance of the international activities of born global firms. The majority of the ‘theory of the born global’ presented in this article can be best described as contingency-based; and as such, does not necessarily imply any performance differences between born global and non-born global firms. However, the arguments underlying our second hypothesis are subtly different. In the psychic distance hypothesis, we are arguing that some firms, through the previous experience of their founders, may have superior information concerning foreign market opportunities and superior skills in exploiting such opportunities. As such, it is not unreasonable to expect that born global firms may experience superior performance in international markets when compared with non-born global firms.

**H7 Born global firms will tend to have high levels of performance in international markets than non-born global firms.**

## METHODOLOGY

The aforementioned hypotheses are tested on two separate data sets. The first data set is relatively old, but of historical significance. It is the comprehensive survey of small and medium sized Australia exporters which prompted McKinsey & Company (1993) to coin the term born global. We shall refer to this as data set #1. The second data set is a more recent two-stage survey of Australian exporters designed and collected by this author. This data set will be referred to as data set #2. Since both of these data sets have been reported multiple times in published sources (Dow, 2005, 2001, 2000; McKinsey, 1993; Rennie, 1993), we will only provide a brief summary of their characteristics.

Data set #1 was a mail survey of 700 small to medium-sized Australian high value-added manufacturing exporters. A total of 282 firms completed the survey, which yielded a 40% response rate. The original survey included eight pages of questions (see McKinsey, 1993, pages 73 - 81) covering a broad range of issues, but only eight of those questions are of relevance to this investigation – three relate to identifying whether a firm is ‘born global’, and the other five identify the first five export markets of the firm. This data is used to test hypotheses H1 and H2.

Data set #2 is a smaller, but more recent, random sample of the top 500 Australian exporters. The survey questions were pilot tested on several exporting firms, and the final questionnaire was administered to key informants (Venkatraman and Prescott, 1990) via telephone and in-person interviews. The key informants were in general the most senior managers responsible for each firm’s export activities. Guidelines recommended by Venkatraman (1990) were employed to ensure the key respondents were knowledgeable, and that respondent bias was minimised. Of the 200 companies approached, a total of 109 firms provided useable responses (a 54.5% response rate). The majority of respondents provided information on their two most important export markets, yielding a total of 207 host market entries. This data set has been tested for violations of normal distribution assumptions, non-respondent bias, respondent position bias, and non-independence of observations. No major violations were detected, except for a slight non-respondent bias towards larger firms. The majority of the questions

in this survey were designed to explore the degree of adaptation in export markets (Dow, 2005, 2001); however a selection of questions were also included at that time to allow a subsequent sub-analysis of born global firms. The performance data was collected after a three year delay, and pertains to the performance over that intervening three year period. As is common with longitudinal studies performance data is only available for 100 of the original 207 host market entries. There was a mild response bias towards firms which might be best described as having ‘a stronger domestic base’ (see Dow, 2005). For the analyses reported here, firms exporting primary industry goods have been excluded. This reduces the size for data set #2 to 89 companies and 154 markets for the main set of survey questions, and 79 markets for the performance data. Tables 1, 2 and 3 provide summary statistics for each data set. Details on the precise specification of each variable are provided in Appendix I.

In order to distinguish between born global firms and non-born global firms, we have adopted Madsen et al’s (2000) dual criteria of the firm exporting within three years of being founded and exporting at least 25% of its total sales. Only firms achieving both of these criteria are classified as born global. While these two dimensions are consistent with both our definition and theory of a born global firm, the precise thresholds are relatively arbitrary. In the context of the landmark McKinsey & Co (1993), they adopted five years and 50% international sales as their cut off criteria. At the other extreme, Aspelund & Moen (2001) used ten years and 15% international sales as their cut off. We have chosen to adopt the three years and 25% international sales as it appears to be a standard around which experts in the field, such as Knight and Cavusgil (2004), are coalescing. However, in subsidiary analyses not report here, the base line hypothesis, H1, was tested using all three of the aforementioned criteria. The results were effectively the same.

## **RESULTS**

The distribution of early market selection (the frequency with which a country is one of the first five markets entered by a firm) is significantly different for born global firms, as compared to non-born global

firms (Table 4 –  $\psi^2 = 83.69$ ,  $df = 23$ ,  $p < .001$ ). This result strongly supports the first hypothesis, and confirms that born global firms do appear to behave in a different manner; and thus, are worthy of independent study.

We can now proceed with a closer inspection of the early market selection in Data set #1 in order to explore what might be driving these differences. Table 5 represents a reanalysis of the psychic distance of the first five market entry decisions, as reported in Phase 4 of Dow (2000, 59-60), with born global and non-born global firms reported as separate populations.  **$\Delta$ \_Psy Dist** represents the difference between the psychic distance of the selected market, and the psychic distance of the available markets. A negative value indicates that a firm is systematically selecting more psychically proximate markets; and thus, psychic distance is influencing their market selection process. While it is clear that psychic distance is affecting each of the first five market selection decisions for both types of firms, the  **$\Delta$ \_Psy Dist** scores for born global firms are significantly higher for each of the first four market entry decisions. In other words, a born global firm's early market selection is influenced by psychic distance, but to a substantially lesser degree than for non-born global firms. Thus, the second hypothesis is also confirmed.

We must now turn to the second data set, in order to test the remaining hypotheses. It should be noted here that a key distinguishing feature of Data set #2 is that it relates to the exporting firm's two most important markets, as defined by the respondent, rather than the firm's earliest market selections (as is the case with Data set #1). For this reason, the second hypothesis has been retested as shown at the top of Table 6. Once again the born global firms are systematically selecting more psychically distant markets. It should be noted that the magnitude of this difference is statistically the same across the two sample populations, but the smaller sample size, and thus lower power, results in a lower level of statistical significance for Data set #2.

As also shown in Table 6, born global firms report mildly lower levels of differences in customer preference between markets, but this result fails to achieve statistical significance; thus the third hypothesis is not confirmed. In contrast, the difference in transportation costs between born global and

non-born global firms is highly significant; confirming hypothesis H4. Born global firms appear to be heavily concentrated in 'low transportation cost' industries.

The hypotheses concerning born global firms focusing on niches receive partial support from Data set #2. Born global firms are more frequently found in industries where the customers are highly concentrated, confirming H5a; but they do not appear to adopt a narrower focus, in terms of customers and/or products, than their immediate competitors (H5b). The hypotheses concerning the technology-orientation of born global firms receive similar support. Born global firms are more frequently found in high-technology industries, confirming H6a, but they do not appear to rely on innovation to any greater degree than their immediate competitors (H6b).

Interestingly, the final hypothesis, H7, is not supported. While the born global firms seem to report mildly higher levels of profitability and overall performance in our sample, there is no statistically significant difference between the two groups on any of the three measures of performance.

## **DISCUSSION & CONCLUSIONS**

The first major conclusion of this paper is that, while one may argue about the specific criteria for identifying born global firms – e.g. should one use 'going international within the first 10 years' and a minimum of 15% international sales, as did Aspelund & Moen (2001); or 5 years and 50% international sales, as did McKinsey (1993); or possibly 3 years and 25%, as we have done here – born global firms do appear to be a distinct type of organization. As measured by their pattern of market selection, they behave in a distinctly different manner from other types of firms, and thus deserve separate treatment in international research. This result confirms a path already followed by Knight and Cavusgil (2004), but should serve as a warning to others: when investigating the behaviour of international firms, serious consideration should be given to treating born global firms as a distinct population.

Of equal importance, it is clear that the perception of psychic distance plays a role in that distinctive behaviour. Born global firms are not immune to psychic distance, but they are clearly not as significantly

influenced by it, when compared to non-born global firms. This result reinforces the view put forward by many, such as Oviatt & McDougall (1994), Knight & Cavusgil (2004) and Madsen & Servais (1997), that the previous international experience and international orientation of the born global firm's management team is a major factor in the firm's development.

Nevertheless, we cannot totally ignore the role that other environmental factors play in also shaping the born global firm. Born global firms are clearly more prevalent in high technology industries with low transportation costs and highly concentrated customers. This is again consistent with our predictions and earlier anecdotal observations, but we would still not go as far as Knight (1996) in terms of incorporating these characteristics in the definition of the born global. A full third of the born global firms in Data set #2 were based in non-high technology industries. It is also curious that born global firms do not appear to have a narrower focus, nor greater emphasis on innovation and knowledge-based advantages, than their immediate competitors. This could be interpreted as evidence that, to some extent, born global firms are product of their environment (as opposed to being a product of some unique characteristics of their founders, such as their international orientation). This debate cannot be fully resolved in a cross-section study of this nature. Longitudinal studies, though difficult to execute, are essential for resolving such issues.

The performance results are one aspect which takes this research into uncharted waters. While our performance hypotheses are consistent with the theory, no one to our knowledge has previously tested for, nor even made predictions concerning possible performance differences between born global firms and other types of firms. Our initial results seem to indicate that there are no performance differences; however, this is the one area where our sample size begins to become a constraint.

In terms of other limitations, one must keep in mind the fact that both data sets are confined entirely to Australian-based exporters. This imposes limits on the generalisability of the findings with respect to both country of origin and entry mode. The logical response to this situation is further research expanding both the breadth of originating countries, and including born global firms employing alternative entry

modes. Another useful extension would be to simultaneously explore the attitudes and past international experiences of the founders of the firm. The linkage of these aspects with the role of psychic distance in the market selection process is logical, but still unproven. Another useful addition to future research agendas would be to include more characteristics of the competitors. The non-significant results with respect to hypotheses H5b and H6b may be a result of the fact that most born global firms are competing against other born global firms.

In summary, the results clearly confirm that born global firms are a distinct type of organisation; and thus, are worthy of independent investigation, but substantial work still needs to be done to fully understand how and why these organisations arise. The current 'theory of a born global', as presented in this paper, seems to provide a compelling explanation, but a substantial number of aspects are, as yet, untested.

**Table 1. Descriptive Statistics and Correlation Matrix – Data set #1**

	n*	Min	Max	Mean	s.d.	1	2	3
1. Age 1 <sup>st</sup> Intl	282	0	90	16.4	19.4	1.00		
2. Export Int	282	0	99	31.5	29.3	-.404	1.00	
3. $\Delta$ Psy Dist <sub>n</sub>	1004	-3.48	3.31	-1.07	1.35	-.045	.169	1.00

\* The sample includes 282 companies, but each company reported information concerning up to five markets. A total of 1,121 market entries were recorded – an average of four per firm; however, since the  $\Delta$ \_Psy Dist calculation requires knowledge of the previous market entry, missing data limits the sample size for the bottom row of the table to 1,004.

**Table 2. Descriptive Statistics – Data set #2**

	n*	Min	Max	Mean	s.d.
1. Age 1 <sup>st</sup> Intl	89	0	132	24.7	28.5
2. Export Int	89	0.1	100	43.2	32.8
3. Psy Dist	154	1.72	7.27	3.99	1.38
4. Cust Pref <sub>adj</sub>	154	-1.62	1.87	-0.28	0.93
5. Tpt Cost <sub>adj</sub>	154	-1.75	3.55	1.59	1.01
6. # of Cust (ln)	89	0	16.65	7.18	4.95
7. Focus	154	1.49	4.58	3.28	0.70
8. Hi Tech	89	0	1	.18	.38
9. Innov	154	-2.48	3.14	0.11	1.08
10. Profitability	79	-1.778	1.83	-0.14	1.01
11 Growth	79	-1.65	1.65	-0.06	0.98
12. Performance	79	-2.02	1.78	-0.08	1.03

\* The sample includes 89 companies, but each company reported information concerning up to two foreign markets; thus the sample size for most of the variables is 154. The performance data is based on the number of markets reported but was collected in a follow-up survey; thus the lower sample size.

**Table 3. Correlation Matrix – Data set #2**

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Age 1 <sup>st</sup> Intl	1.000										
2. Export Int	-0.473	1.000									
3. Psy Dist	-0.133	0.273	1.000								
4. Cust Pref <sub>adj</sub>	-0.069	0.096	0.524	1.000							
5. Tpt Cost <sub>adj</sub>	0.118	-0.263	-0.174	-0.149	1.000						
6. # of Cust	0.316	-0.640	-0.478	-0.060	0.146	1.000					
7. Focus	0.268	-0.121	-0.077	0.033	0.021	0.177	1.000				
8. Hi Tech	-0.246	0.309	0.154	0.055	-0.404	-0.133	0.035	1.000			
9. Innov	0.065	0.032	-0.002	0.097	0.040	-0.049	0.148	-0.019	1.000		
10. Profitability	0.121	0.038	0.001	0.176	-0.197	0.158	0.161	0.133	0.194	1.000	
11. Growth	0.056	0.067	-0.283	0.039	-0.042	0.208	0.254	-0.020	0.212	0.633	1.000
12. Performance	0.063	0.099	-0.154	0.125	-0.098	0.162	0.239	0.016	0.202	0.853	0.914

**Table 4. Differences in Early Market Selection – Data set #1**

	Born Global [BG] Firms	Non-Born Global [NBG] Firms	All Firms
NZ	15	118	133
Singapore	14	94	108
USA	28	66	94
Hong Kong	14	72	86
Malaysia	14	71	85
Japan	26	59	85
UK	28	52	80
Indonesia	9	59	68
PNG	4	47	51
Thailand	5	37	42
Taiwan	10	29	39
Philippines	7	28	35
Germany	13	21	34
Canada	8	20	28
Fiji	1	23	24
South Korea	10	14	24
China	6	16	22
France	10	9	19
South Africa	4	14	18
India	4	8	12
Italy	6	4	10
Iran	3	6	9
Sweden	2	6	8
Saudi Arabia	0	7	7
Total	241	880	1,121

$\psi^2 = 83.69$ ,  $df = 23$ ,  $p < .001$

**Table 5. Testing for the Differential Influence of Psychic Distance on Early Market Selection  
– Data set #1**

$\Delta$ _Psy Dist	Born Global [BG] Firms	Non-Born Global [NBG] Firms	Difference <sup>t</sup> [BG-NBG]
1 <sup>st</sup> Market Entered	-0.99	-1.48	0.49 **
2 <sup>nd</sup> Market Entered	-0.75	-1.09	0.34 **
3 <sup>rd</sup> Market Entered	-0.74	-1.12	0.38 *
4 <sup>th</sup> Market Entered	-0.40	-1.02	0.62 ***
5 <sup>th</sup> Market Entered	-0.85	-0.79	-0.06

\*  $p < .10$ ,    \*\*  $p < .05$     \*\*\*  $p < .01$

<sup>t</sup> For each market entry decision, an ANOVA test (assuming unequal variances) was used to test for one-tailed statistical significances between born global firms and non-born global firms. It should be noted that all ten  $\Delta$ \_Psy Dist scores are also statistically different from zero ( $p < .05$ ).

**Table 6. Testing for Significant Differences – Data set #2**

	Born Global [BG] Firms	Non-Born Global [NBG] Firms	Difference <sup>t</sup> [BG-NBG]
H2 - Psy Dist	4.28	3.90	0.38 *
H3 - Cust Pref <sub>adj</sub>	-0.345	-0.267	-0.078
H4 - Tpt Cost <sub>adj</sub>	3.18	6.71	-3.53 ***
H5a - # of Cust	3.51	8.18	-4.67 ***
H5b - Focus	2.70	2.82	-0.12
H6a - Hi Tech	.35	.13	.22 **
H6b - Innov	-0.04	0.16	-0.20
H7 - Profitability	-0.063	-0.168	0.105
H7 - Growth	-0.066	-0.053	-0.013
H7 - Performance	-0.023	-0.102	0.079

\*  $p < .10$ ,    \*\*  $p < .05$     \*\*\*  $p < .01$

<sup>t</sup> For most of the differences, an ANOVA test (assuming unequal variances) was used to test for one-tailed statistical significance. For H6a, both variables are categorical; and thus, Fisher's exact test was employed.

## APPENDIX I – SPECIFICATION OF VARIABLES

- Age 1<sup>st</sup> Intl**            The age at first internationalisation is the time between the founding of the firm and the first export sale of the firm, as measured in years.
- Export Int**            The export intensity is ratio of the monetary value of the export sales divided by the total sales of the organisation.
- Psy Dist**            Psychic distance from Australia to the host market in question is estimated on a 10 point scale by an independent sample of eight experts as reported in Dow (2000). The estimates of the experts were highly correlated with a Cronbach alpha of .97.
- $\Delta$ \_Psy Dist**            Delta psychic distance is the difference between the psychic distance from Australia of the actual market selected and the psychic distance from Australia of the markets the firm had to chose from. Thus, a significantly negative value indicates a bias in favour of more psychically proximate markets.
- Cust Pref<sub>adj</sub>**            The difference in customer preferences between markets is based on three 5 point Lickert type scales as reported in Dow (1997). The three scales are combined into a single factor score (Cronbach alpha of .52) and subjected to a natural logarithm transformation to reduce the skew. During the analyses, the **Cust Pref** factor was found to be positively correlated with **Psy Dist** to a statistically significant degree. As a result, a second version of the customer preference factor, **Cust Pref<sub>adj</sub>**, was created. This second form of the factor is adjusted to a constant **Psy Dist** of 4.0 (the mean of the sample). The empirical results for both forms of this variable are similar. Thus, only the results of the adjusted form of the customer preference factor are reported here, but the remaining results are available on request from the author.
- Tpt Cost<sub>adj</sub>**            The basic transportation cost variable, **Tpt Cost**, is the ratio of the international transportation costs divided by the landed cost of the product. An adjustment was then made to control for a potentially confounding effect of distance, resulting in a second form of the variable – **Tpt Cost<sub>adj</sub>**. The adjustment for distance was based on Conlon's (1985) observed relationship between transportation costs and distance. The empirical results for both forms of this variable are again similar. Thus, only the results of the adjusted form of the transportation cost factor are reported here, but the remaining results are available on request from the author.

**# of Cust**            The concentration of customers is measured as an estimate of the mean number of potential customers in the firm's home market. This variable is subjected to a natural logarithm transformation to reduce the skew.

**Focus**                The degree of relative customer-product focus is measured using three 5 point scales as reported in Dow (2001). The three items, reflecting the degree of focus in terms of product range, number of customers, and types of customers, are then collapsed into a single factor (Cronbach alpha of .83). The resulting factor represents the degree of focus relative to the firm's major competitors. A high score indicates a broad focus, and a low score indicates a narrow focus.

**Hi Tech**             Whether the industry is classified as high technology was measured using a simple 0-1 dummy variable. If the firm was competing in an industry identified as high or medium-high technology by the National Science Foundation (2004), then it was coded as 1.

**Innov**                The knowledge-based advantage factor is based on six 5 point scale indicators (Dow, 1997). These six indicators reflect the degree to which the firm relies on: product features, product performance, proprietary products, new product innovation, specialty products, and their ability to refine products in order to differentiate themselves from their competitors. The six indicators have been collapsed into a single factor (Cronbach alpha of .83).

**Profitability**        Export profitability in a specific market is measured using two 5 point scale indicators of profitability as reported in Dow (2005). The first of these two indicators reflects the degree of profitability relative to the firm's competitors, and the second indicator utilises the firm's domestic market as the benchmark. Combined into a single factor, these two indicators yield a Cronbach alpha of 0.83.

**Growth**              Export growth is similarly measured using the two 5 point scale indicators of export revenue growth. Combined into a single factor, these two indicators yield a Cronbach alpha of 0.86.

**Performance**        Overall export performance is measured using six 5 point scale indicators. The four preceding measures of export profitability and growth are combined with two indicators that reflect overall performance relative to expectations. These six indicators have been collapsed into a single factor (Cronbach alpha of 0.92).

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