A Cross-National Comparison of the Internationalisation Trajectories of Internet Start-ups

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Introduction

There is considerable current research interest on how the Internet and related technologies can enable smaller firms to internationalise rapidly. Many believe that these technologies offer unprecedented opportunities for such firms to overcome geographic barriers to expansion into foreign markets (Hamill 1999, Poon & Jevons 1997, Samiee 1998, Katz & Murray 2002). Indeed, the argument that smaller firms can particularly benefit from the ability to gather information, promote themselves and service customers in new markets for relatively little expense is very persuasive (Quelch & Klein, 1996; Chattell, 1998; Franson, 1998). Many authors also contend that due to the impact of the Internet, and the World Wide Web (WWW) in particular, on the marketing environment, firms will experience fewer barriers to internationalisation and be able to market globally at an early stage of development (Bennet, 1997 & 1998, Berry & Prashantham, 2001; Brock & Berry, 2001; Mostafa & Wheeler, 2001; Kuemmerle, 2002).

It might be postulated, therefore, that because of their high skill level Internet start-ups are in a superior position to capitalise on new marketing conditions brought about by the WWW, and that the preponderance are therefore "global from inception". Indeed, there exists evidence from Knight's (2002) Taxonomy of Born Globalness that firms that have internationalised the most rapidly ultimately tended to have better international performance. However, the internationalisation of Internet-enabled companies, or Internetisation

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(Loane et al., 2001; Dana, Etemad & Wilkinson, 2002) is by no means a deterministic, or even a homogeneous process. Internationalisation pathways reflect different strategies that relate market scope to timing advantages in an attempt to lever value from the business model.

Research Focus and Method

The present research builds upon exploratory studies conducted in Ireland (Loane et al., 2001) and also in North America and the European Union (Loane et al., 2002). The objective of the original study was to investigate and understand the internationalisation pathways adopted by Internet start-ups. A judgmental sample of 10 entrepreneurial Irish Internet-enabled and Internet start-up firms was selected for in-depth study. For inclusion, each case firm had to be independent and active in international markets. In addition, they had to employ fewer than 250 employees, although in practice many were much smaller, with 70% employing fewer than 50 staff. Five of the selected firms were located in Northern Ireland and five in the Republic of Ireland. Five of the cases were in the software or Information Communications Technology (ICT) sectors, three provided B2B consultancy services and two were on-line retailers of goods or services. Five of the firms were Internet start-ups; the others had adopted the Internet after inception in order to expand their international activities.

The objective of the second exploratory study (Loane et al., 2002) was to broaden the geographical scope of the original work by exploring the internationalisation pathways of a small sample of Internet-enabled and Internet start-up firms in Europe and North America. As anticipated, due to the relatively recent emergence of Internet technologies, the majority of the case firms were young (63% were less than five years old) and had less than five years' experience of international markets (50%), only one case firm had more than 10 years of international experience. Typically they employed less than 50 employees (63%), with an average of 36 employees. Impressively, half of the firms had export ratios of 50% or greater, with three of the firms achieving export ratios of 97%, 98% and 100% respectively. Case firms also fell into various different broad categories in terms of product or service offered. The Internet-enabled firms from both exploratory studies were achieving global reach easily, regardless of their physical location, and irrespective of their small size.

For the purposes of these studies, rapidly-internationalising Internet start-ups were defined as firstly having a web address and using ICT technologies in their day-to-day activities. Secondly, rapid internationalisers are those new ventures that exhibit an innate propensity to engage in a meaningful level of international business activity at or near inception, with the intent of achieving strategic competitive advantage (Oviatt & McDougall, 1994).

Similar procedures were used to develop "shallow" cases for each of the studies. These were initially developed from secondary sources, such as the World Wide Web (WWW), databases/sites, government and industry reports, the trade press and the popular media. To date, in the present study, approximately 50 cases have been developed in Ireland, Canada, Australia and New Zealand, making a total of around 200 in all. Specific information gaps, typically financial performance measures, exact employee numbers and the pace of internationalisation were addressed via e-mail or by telephone. For inclusion, case firms had to be independent, active in international markets and employ fewer than 250, although in practice many employed less than 50. In addition, it was important that the case firms were relatively young and that the founders were still actively involved in the business. Due care and diligence was observed in order to adequately establish cross-cultural equivalence following principles as laid down by Cavusgil & Das (1997).

These "shallow" cases are currently being analysed using Qualitative Comparative Analysis (QCA), a relatively new approach, developed by Ragin (1987), which has been successfully applied in Social Science research, notably in Sociology and Political Sciences. Typically in case study research, only a few cases are examined, and analysis is both intensive and integrative. QCA makes it possible to bring the logic and empirical intensity of quantitative approaches to more than a handful of cases. It can be applied to research situations that normally call for the use of variable orientated, quantitative methods and bridges the gap between the two methodologies, as it preserves the intensity of the case oriented approach, whilst examining many cases (Ragin & Zaret, 1983).

The second phase of this multi-stage research involves isolating a representative sub-sample of approximately 50 to 60 firms (approximately 15 to 20 in each country). This involves in-depth interviews with key decision-makers and/or the management team. At the time of writing 16 in-depth interviews have been conducted in Canada and 15 in Ireland, whilst approximately 30 are scheduled for early 2003 in Australia and New Zealand. These in-depth interviews explore the firm's internationalisation patterns and pathways, behaviours and motivation, processes, and strategies. Our intention is to explore differences that may exist in the internationalisation process of these firms by geographic location and by industry sector (where sufficient cases permit this).

Preliminary Findings

The proposed model emerging from the limited extant literature and our preliminary findings suggests that several internationalisation trajectories can be recognised among Internet start-ups, each having implications in terms of the business plan including financing, marketing strategy, and human resource requirements. It is anticipated that the final results from the overarching large-scale study will shed further light on the underlying factors that encourage firms to pursue particular pathways. However, in order to provide an early insight into some of the emerging results, we present a number of case studies, including several from Australia, Canada, Ireland and New Zealand. A demographic profile is shown in **Table 1**.

The majority of the firms were young, as would be anticipated, (75% were aged between two and 10 years old) and practically all were in international markets within two years (75%). Typically they employed fewer than 50 staff (87.5%). The case firms fall into different broad categories in terms of offering, but in all cases the business involves a high degree of knowledge-intensity and a strong business-to business (B2B) service component (see **Table 2**).

TABLE 1: DEMOGRAPHIC PROFILES OF THE CASE FIRMS

Characteristic	Band	*N=8*	%
Age of firm	<2 years	-	-
	2-5 years	3	37.5
	5-10 years	3	37.5
	>10 years	2	25.0
Size of firm	<20 employees	4	50
	20-49 employees	3	37.5
	50-99 employees	-	-
	100 or > employees	1	12.5
Speed of Internationalisation	<2 years	6	75
	2-5 years	2	25
	5-10 years	-	-
	>10 years	-	-
Number of founders	Sole founder	1	12.5
	Team x 2	6	75
	Team x 3	1	12.5
	Team x 4	-	-
Family ties (Team only)	Husband & wife (or partners)	1	12.5
	Other family	1	12.5

TABLE 2: FIRM LOCATION AND ACTIVITY

Firm	Location	Activity	
A	Ireland	Software handling systems for the aviation industry	B2B
G	Australia	Software for criminal justice, defence and security industries	B2B
C	Canada	Mathematical software developers	B2B
E	New Zealand	Graphics and web design	B2B
F	New Zealand	e-exchange for lumber	B2B
H	Australia	e-marketplace addressing for SME trading	B2B
B	Ireland	Diagnostic test kits/reagents for cereal and food industries	B2B
D	Canada	Video transmissions	B2B

As may been seen from **Table 2**, three firms were providing customised software, two were providing either an e-marketplace or an e-exchange service, whilst others were involved in diagnostic test kits and reagents for the food and cereal industries, web design services and video transmissions. Further detail on each of the case firms in terms of their size, location, and pace of internationalisation is contained in **Table 3**. Furthermore, this table has a synthesis of the background of the founders/founding teams and also self reported critical success factors for each firm. Preliminary finding with regard to the various aspects of their internationalisation trajectories are presented below.

Pace of internationalisation

The internationalisation of firms has for many years been regarded as an incremental gradual process involving many sequential stages or steps (Johanson & Vahlne, 1977; Bilkey & Tesar, 1977; Czinkota & Johanson, 1981) in which firms begin their international activities to countries that are "psychically close". Implicit in this view is the fact that firms are well established domestically prior to any international involvement. However, a growing stream of literature now demonstrates that there are some firms that display an aggressive form of rapid and dedicated internationalisation (McKinsey & Co, 1993). These have become known as "Born Globals" or "International New Ventures", and Oviatt & Mc Dougall (1994) define them as follows:

> *"…a business organisation that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries.*"

All of the firms adopted a global focus from the outset, with six undertaking rapid and dedicated internationalisation either from inception or within two years, supporting the Born Global literature (McKinsey & Co, 1993: Madsen & Servais, 1997). The two exceptions, both Australian, were cases G & H. Case firm G became active in international markets four years after inception, and Case firm H, after three years. This firm commented that "… we initially focused on perfecting our technology rather than aggressively expanding our client base, and when this was mature, we began marketing our e-commerce solutions throughout Asia-Pacific". This company also made significant investment both in hardware and in developing customised software to run the e-exchange operations, which took over two years to set in place. The other case firm, Case G, after the launch of its services in 1994, worked domestically in Australia for four years, adding influential law enforcement agencies and State police forces to its client list. These clients provided them with both legitimacy and credibility in the wider marketplace. This firm, in common with the other case examples, had global vision from inception, and it used the pre-internationalisation period to strengthen its team, by recruiting a hand-picked team around the original founders, who brought with them extensive knowledge of the other legal jurisdictions that they were intending to enter. All of the case firms were deriving significant competitive advantage from their international operations, and a particularly interesting case is presented below.

CASE F: International from inception

This New Zealand-based firm was founded in 1999 by two brothers, who were from a 4th generation forestry background. They left the family firm to set up this e-marketplace for lumber trading, giving them global reach from birth. Its first transaction was in 2000 to Australia, and since then it routinely trades with Chile, Korea, India, Canada, USA, Japan, China and Malaysia. The website is multi-lingual, offering seven language choices, and will accept trade in any currency. Although there is public access to the web site, trading is private and sophisticated security systems are in place. The founders state that they wish to "…set the pace in the global wood industry, and become the top brand e-exchange".

Founder/Management team background

Knight & Cavusgil's (1996) examination of the mindset of managers in Born Global firms found that, if they have a global orientation, this is positively associated with export performance. Research has indicated that the attributes associated with the owners/founders of firm contribute to the decision to internationalise (Reid, 1981; Miesenbock, 1988). Reuber & Fischer (1997) highlighted the importance of the "right" management team for success. All case firms displayed clear evidence of a global orientation (Fletcher, 2001), and the entrepreneur/ entrepreneurial management teams of the case firms were willing to capitalise on any international opportunities and were predisposed to taking risks in order to build relationships across national boundaries. As the firms in this study were relatively young, they do not possess any great degree of organisational experience (Cooper & Dunkelberg, 1986). However, there is evidence that a knowledgeable founding team could compensate for this fact, and management team experience is a factor that influences venture capitalists (McNaughton & Bell, 2000).

In all case firms, the founder/founders were seen to play an important role in the internationalisation process. Case firm D presented below highlights an interesting case scenario.

Case D: Entrepreneurial founding team background

This Montreal-based firm was founded by three people who worked in the business of building fibre and satellite video delivery networks worldwide. Working closely with the broadcasters, they kept hearing the same issues about video delivery. Basically, there was no one-stop resource for video transmission available. They came together to form a new niche firm that could bring the entire video transmission package quickly to the client, instead of bits which previously had to be coupled together. They discovered, through extensive market research and data mining, that the real opportunity lay in providing connectivity to the US from other sites worldwide. Within two years of inception, they were serving broadcasters from the US, Russia, Chile, Brazil, Colombia, Germany, UK, Spain and Greece. Two of the founders had lived in Europe and Latin America and had extensive market knowledge of these regions. They now have an export ratio of 90% and revenues are growing at a satisfactory rate.

In the course of gathering the data for the large-scale study, significant incidences of husband and wife entrepreneurial founding teams or "copreneurs", where each bring specific skills and knowledge have come to light. Firm B from Ireland is a prime example (see below) although this phenomenon is by no means limited to Ireland, many cases are found across all investigated locations.

Case firm B: Copreneurial founding team (husband and wife)
They met when the husband was working as a research scientist and the wife as a marketing executive for a large biotechnology firm. They married and went to Australia, setting up a new firm in 1989, producing diagnostic test kits and reagents. These were sold internationally right from inception. The combination of the scientific knowledge and management skills of the founders, combined with their shared personal vision gave the company a distinct competitive advantage. The firm went online in 1994, with mainly brochure-ware to reduce marketing costs and extend its reach internationally. It added online sales in 1995, facilitating relocation to Ireland in 1996. The directors claim no customers were disrupted during this time, and that the Internet made location irrelevant. It now has a 97% export ratio, and have 90% of the world market share for its products, serving 45 countries world wide.

With only one exception (Case E), all of the case firms presented here were established by entrepreneurial founding teams (see **Table 3** for details), It was clear that there emerged a synergistic relationship when team members came together to share their combined experience, expertise and networks.

Mode of internationalisation

The case firms used various modes of internationalisation, and there is evidence of the different types of business using different modes to enter international markets. Four of the firms (B, D, F & H) used their websites to position themselves in the global marketplace. In fact case firm B, was using its website to elicit 40% of its sales online, a figure it predicted would be 80% by the end of 2003. Firm D, the video transmission providers, uses the Internet to underpin an online quotational system, unique to it, which is both fast and accessible from anywhere 24 hours a day. As one of its major broadcast items is news, the CEO comments that "When it's news, it's no good when it's old, so we have to be very quick". The firm uses the Internet to gather information quickly on acts of God, and are subscribers to all of the major news providers worldwide. The website is also a major marketing tool, as it prepares packages for upcoming events, for example, the OPEC summit, and post these on the website in advance. Broadcasters are then able to use this package easily and relatively cheaply.

Other firms with a more digitised "product" (H) needed little face-to-face interaction and used partnerships or alliances with large global players such as Sony, Compaq, DMR and IBM. Indeed, these firms placed great importance on setting in place the "right" partnerships. The larger partner either distributed the "products" or gave the smaller partner a high profile link on their own website. In such cases, the Internet may fulfill the dual role of both distribution and promotion at once. An interesting case scenario is presented below; this firm has made use of partnerships to both power the technology underpinning the business model and also with hotel groups and financial institutions.

Case H: Mode of internationalisation

This Australian-based firm was founded in 1997, by two individuals out of the desire to create a B2B trading solution that solved the problem of inefficient fragmented procurement for companies in the hospitality sector regardless of their size. The founder's procurement experience in the hospitality industry was the springboard for the firm's inception, and its B2B technology is considered by many to be the fastest, and most functional on the market. It formed technology partnerships and alliances with notables such as Bullant, Intel Hewlett Packard, iPlatinum and the St. George Group, recognising the value of partnering with companies with skills and knowledge in areas which complement its own. A key informant commented that "… as a growing company, our partnerships and alliances allow us to extend our solutions to a wider number of business and locations, these partnerships can also deliver major competitive advantages to customers".

Networking

As the stage theories are unable to explain the process of rapid internationalisation for small high technology and knowledge-based firms in particular, academics have sought other approaches and explanations and for example, networks and networking have come to the fore (Johanson & Mattson, 1988). The research on SME internationalisation now contains a growing body of evidence with regard to the role played by networks and networking. Network theory can illuminate how the resources, activities and players (Hakanson & Snethota, 1995) affect the internationalisation process of the firm.

The preliminary findings confirm that the importance of the founder(s) global vision and the backgrounds, skills and networks of key decision-makers were fundamental to success in rapidly internationalising. Take for example case firm E, an international web design firm based in New Zealand: the founder, who had an advertising background, produces auto graphics for motor sport race teams across the world. He leveraged the networks he had built throughout his 20-year career when he started his own web design firm, catering for motor sport racing teams.

Case firm also A provides an excellent example of a rapidly internationalising firm and the role the founders' networks have played in this process. A former US navy pilot who went onto work for Pratt & Whitney in the US, and a former Vice-President of FLS Aerospace founded it: their combined networks in the aviation world opened many doors, especially to the US within two years of inception.

The founders of Firm D had extensive networks within the broadcasting industry; they levered these in order to gain transmissions in the earliest days. One founder was Latin American, and his networks have proved to be particularly fruitful, and helped entry into the Chilean market. Success in this market brought work from other Latin American countries, partly as a result of newspaper coverage on how the Chilean national broadcaster, using Firm D, was able to cover the events of September 11th so promptly.

All of the case firms had in common that they considered the founding teams' experience-base and network knowledge to be central to the rapid internationalisation process. In addition, these assets undoubtedly helped when negotiating partnerships and alliances, and in sourcing funding. The firms that received venture capital felt that their founders' networks either directly or indirectly steered them through a complex process. Firm G, from Australia, in particular was aware of the value of its network resources, as shown above, and actively added to this resource by adding team members who brought with them experience in the international law enforcement arena.

Case G: Founder(s) networks

This Australian-based firm was founded in 1994 supplying compliance case management software, targeted at defence, law-enforcement, security, insurance, criminal justice and private investigation agencies. The two founders, staff and consultants attached to this firm are all expert in these areas, both domestically and internationally. The first round of contracts was at home in Australia, which worked extremely well and the firm's reputation spread quickly. The founders quickly gathered around them an internationally-experienced management team that soon became known for the calibre of the solutions and backup provided. It entered the Canadian and US markets in 1998, closely followed by the Netherlands, UK and South Africa. The potential barriers raised by the different legal and political frameworks in the foreign locations were quickly overcome, as a result of the founders personal networks and those of the hand-picked team they had quickly gathered around them.

Finance

Although a lack of finance is often cited as a barrier to internationalisation (Miesenbock, 1988; McNaughton & Bell, 2000), none of these case firms have found this to be a barrier to internationalisation.

Firms A, D & F, received significant amounts of venture capital. The founders of firm A in particular stated that the "… significant track record of the founding team facilitated this process". Both firms in receipt of venture capital (VC) stated that the "right VC was essential; it was as much about the contacts and resources which the VC brought with them, as it was about the actual funding received". Firm F needed substantial investment, as it cost $1 million to build the website and underlying technology for secure transactions. Although not yet profitable, it expects to be so next year. Firm H secured a $1.25 million grant from the Australian Federal Government to support R&D and ultimately the internationalisation process. Firm D had no track record as a team, but was able to project its dream to the venture capitalists and private backers so well, that it gained significant funding. However, the founders commented that the funding received was not sufficient to throw money around, and that every business decision had to be cost-effective. Interestingly, case firm D also used services in kind, or "sweat" capital, to help launch the business, both through family and social contacts. In addition, it received considerable help from both the BBC and Reuters regarding the technology involved.

The case firms demonstrated that funding was available from a variety of sources and that the founders were willing to use any or all combinations of these to fund their activities. All firms in common stated that profitability was not an early goal, instead that cash flow was much more important, and this was what they worked towards.

Patterns of Internationalisation

With regard to the country markets chosen by the case firms, one particular case (E) clearly demonstrated client followership (Bell 1995). New Zealand is a small open economy, therefore this firm had no option but to target its niche market (web design for motor racing teams) where the clients were based. Many of the case firms underwent accelerated internationalisation in an effort to gain competitive edge and "first mover" advantage. An excellent example of this is the Irish firm B, international from inception, which now has 90% of the world market share for their test kits. Canadian-based firm C, achieved extremely wide market spread for their mathematical software. By the end of the first year, it was installed in 1,000 sites worldwide; its principal country markets were the US, UK, France and Germany. It targeted universities and higher education institutions, as the software could be used in many differing faculties, and it also used electronic communications to widen its market reach, even back in 1988/89. By constantly upgrading and adding enhancements to the software, it has guaranteed ongoing sales with these institutions. In fact, it did not aggressively target any one-country market, considering every university and higher education institution from heavily industralised economies to be its target market. By 1991, it had localised the software for the Japanese university consumers.

Many of the case firms stated that their own location was irrelevant, and that the location of the customer or client was also irrelevant, at least in the developed world. They were willing to follow up and evaluate business opportunities from most markets. The Internet was instrumental in making location a fairly minor factor, and they felt that this could only continue, as time and distance were now being compressed by the ICT technologies.

The salient internationalisation issues – the pace, mode entrepreneurial founder(s) background and international orientation and the value and importance of the management teams – are synthesised in **Table 3**. The preliminary findings corroborate those of earlier exploratory studies (Loane et al., 2001; Loane et al., 2002) and serve to support much of the recent literature in the area. Further detailed analysis is currently being undertaken in order to understand more fully how Internet enabled start-ups internationalise rapidly.

TABLE 3: SYNTHESIS OF CASE FIRMS

Co.	Activity	Founded	Location	Size	Background of Owner/ Founder	Pace	Critical Success factors
A	Information system technology to Streamline aviation operations	2000 B2B Born global	Ireland	15	Aviation background, Former VP of FLS Aerospace And Us Navy pilot, who was also a Manager at Pratt & Whitney	Spain 2001 USA 2002	Industry knowledge of founders and their networks. Partnerships with e.g. IBM, DMR. Founders had significant track records, which aided in obtaining Venture capital Always export oriented.
B	Develop & supply diagnostic test kits Sell 200 products online (40% sales)	1989 B2B Born Global 97% export ratio	Ireland	10	Research Scientist And Marketing/Sales background Husband & wife team, met at an Irish MNE	45 countries Europe N America M East Australasia F East International from inception	Knowledge of science in area Niche market (they ve 90% of world sales). Export oriented with global vision. View web as important for Marketing & distribution

Co.	Activity	Founded	Location	Size	Background of Owner/ Founder	Pace	Critical Success factors
C	Mathematical software developers	1988 B2B Born Global 90% export ratio	Canada	100	2 Founders Both University Professors, one was a mathematician, other was a computer scientist. One of the Professors is a serial entrepreneur, and has since founded two other firms.	USA 1988 Germany 1988 UK 1989 France 1989 Japan 1991 Used at 1000 sites worldwide by 1989.	Began as a university research project, and was extremely successful. Team expanded rapidly to bring in members worldwide. Global vision from inception. The academics had international networks and exposure, and were at the forefront of electronic communications technologies.
D	Video Transmission services	2000 B2B Born Global 90% export ratio	Canada	31	3 founders who all worked together in video transmission. One had lived in Hong Kong, another in Spain and both were familiar with these markets. The third founder was Latin American and had extensive knowledge of the Latin American market.	USA 2002 Russia 2002 Chile 2002 Mexico 2002 Brazil 2002 Colombia 2002 Germany 2002 UK 2002 Greece 2002 Spain 2002	Identified a gap in the video transmission service area, which was fragmented. They provide a one-stop approach, bringing the entire package to the broadcaster. Extensive data mining undertaken, as none existed. Referrals are starting to produce more and more work. Export oriented with global vision.

Co.	Activity	Founded	Location	Size	Background of Owner/ Founder	Pace	Critical Success factors
E	Web & graphic design company (For automotive race teams)	1995 B2B Born Global	N Zealand	5	Single Founder Design & advertising agency background (worked for race teams in Europe)	USA 1996 Asia 1998 Europe 1997	Niche market Founders' networks Global client list BMW Germany Corvettes USA Daimler Chrysler McLeod European
F	Lumber e-exchange	1999 B2B Born Global	N Zealand	5	Founders are 4th generation forestry & timber processors. Left family firm to start this firm. CostNZ$1million to set up Significant venture capital received 2 Brothers	Australia 2000 Chile 2000 Korea 2001 India 2001 USA 2001 Canada 2001 Japan 2001 China 2001	Industry knowledge & networks Fully multilingual site Use currency of choice on site Always export oriented
G	Compliance case management software, investigative & analytical information management	1994 B2B International after 4 years	Australia	50	Criminal justice background of founders Also defence background 2 male	Canada 1998 USA 1998 Netherlands 1998 UK 1999 S Africa 2000	Founders and other team members have extensive industry & international experience. Networks Expert practitioners Renowned for support & service
H	Trading solutions (Which reduce inefficiencies & fragmentation in hospitality procurement)	1997 B2B International after 3 years	Australia	36	Both founders have hospitality industry backgrounds, and procurement experience 2 male	Asia Pacific 2000	Partnerships in place Technology partnerships enhance technology Global client list Cost effective solution Founders networks

Discussion

Small entrepreneurial firms no longer need economies of scale to be competitive, new technologies allow them to be global players supplying small batches of specialised products or "services" to niche markets. The exponential advances in communications technologies, particularly the Internet means they may position themselves on the centre of the global stage from birth. Without doubt the Internet is strategically significant for smaller firms and may greatly increase their levels of internationalisation (Lituchy & Rail, 2000). There is some evidence that small firms are not adopting the Internet with the same speed as their larger counterparts (Computerworld, 1998), despite the fact that the Internet can confer a number of advantages. It can provide 24-hour visibility world-wide and can provide the basis for an intranet or an extranet, options which used to be too exclusively the preserve of the larger firm (Walczuch, et al., 2000).

The case firms outlined here either actively adopted the Internet from their own inception, as an integral part of their business model, or they adopted them as soon as they were available to them. Case firm B, did just this and commented that,

> "*We view the web as the most important marketing tool of the 21st century and are determined to take full advantage of the relatively new channels for marketing and distribution that the web offers.*"

All are using the Internet widely, facilitating rapid internationalisation or "Internetisation". The real competitive advantage however, is not just being Internet-enabled but, instead, how the firm exploits the Internet.

Accelerated internationalisation presents such firms with significant resource challenges in terms of acquiring sufficient financial and human capital. Appropriate management skills are also crucial and the role of founding teams as opposed to lone entrepreneurs, so oft portrayed in the literature, is emerging as an important issue in the study. Buckley (1993) posited that the role of the top management teams would become a major strand in the study of firm internationalisation behaviour. Reuber & Fischer (1997) also provided empirical evidence of internationally-experienced management teams influencing firm behaviour and increasing their degree of internationalisation. In both preceding studies, and in this work, significant incidences of entrepreneurial founding teams occurred (Loane et al., 2001; Loane et al., 2002). Clearly the firms in these studies devoted considerable resources to having the "best" people on board either from inception as part of the entrepreneurial founding team, or as part of a hand-picked management team gathered to complement the founders' expertise. They consider that the blend of technical and business/management experience vested in these people to be among their chief assets, and an integral part of the firm's resource building activities. When combined with another resource, their innovative technology or service, this helps to catapult them on to the international stage to serve niche markets worldwide. In the words of the CEO of one Irish firm "… this allows us to punch well above our weight on the world stage".

Among the wider sample, significant incidences of a particular type of founding team appear, copreneurs. These are teams made up of life partners, or husband and wives; however, they are not like "Mom and Pop" businesses; each partner brings specific expertise and skills to the firm. Many of the firms also indulge in further resource-building, by strengthening the founding teams, and/or re-shuffling management roles as the firm moves beyond the development phase. Often they bring in experienced CEOs, or venture capitalists place their own people on the board. This gives rise to conflicts and there is evidence of founders hiving off from firms at this junction. There remains much work to be done with regard to the impact of founding teams and copreneurs in particular, and on the dynamics of the founding teams over time, and how they impact the internationalisation trajectories of small knowledge-based firms, and how they contribute to accelerated internationalisation.

Human resource issues in general, are high among these firms' priorities. Intuitively, if these firms are knowledge-based, then people are their greatest asset and clearly there are implications for how people are developed and trained within rapidly-internationalising small knowledge-based firms. In the early days, the trend appears to be that firms buy in the expertise rather than promote from within, yet training and development of human resources is a key element of most business, and there is a pressing need to research how such firms will address these issues. In the larger sample, there was evidence of multiple high-fliers leaving MNEs to come together as an entrepreneurial founding team of a new venture. This raises the issue for the MNEs in turn: how do they deal with the drain on the experience and knowledge-base of the firm when this happens. As a result, there are obviously staff retention issues for the MNEs involved that bear further investigation.

Internet-enabled small firms are receiving much attention in the academic literature; however, such firms are still a relatively new phenomenon, and much work remains to uncover many of the unknowns. The move towards Internet-enabled internationalisation for small firms is driven by both market changes and institutional norms (Tiessen et al., 2001).

All the firms studied were facing environmental and competitive pressures to embrace international e-commerce activities or Internet enabled activities to varying degrees. This is to be expected due to the range of capabilities both technical and cultural and also to the availability of resources in the firm. The growth of Internet enabled internationalisation is forging great changes in the environment for small firms, and it is vital that they understand the implications for the future. Our ongoing research seeks to inform public policy and provide additional research perspectives on these important issues.

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