

## **Drivers and Dynamic Processes for SMEs *Going Global***

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### **Abstract**

*Many, if not most, small-medium enterprises (SMEs) are subject to the impacts of and when they have to venture into the world-trade system, this adds another dimension of challenge to their already difficult environments. A recent project undertaken by Polish, Italian, Norwegian and UK collaborators examined eight case studies of disparate smaller companies with international operations, two in each of the countries represented. This article draws together a number of common features surrounding the process of going global, and the challenges experienced by those firms. These include the stretching of capabilities in supporting customers in unfamiliar markets, the internal competition for funds in pursuing multiple international markets, the importance of word-of-mouth marketing, and the pressures on SMEs' R&D functions. It also highlights the critical importance of balance in smaller enterprises where resources are likely to be tightly constrained, and observes that while some of the challenges apply to many firms and other contexts, they are especially critical in SMEs. Yet awareness of them by those directly involved at the time may be low.*

**Keywords:** World Trade System, internationalisation, visualisation, systems thinking.

### **Author Biographies.**

Graham W. Winch is Professor of Business Analysis in the at the University of Plymouth Business School in the UK. He holds a BSc in Chemistry from Loughborough University and PhD in Business Administration from the Bradford University Management Centre. Besides full-time industrial posts in Germany, UK, and the United States, Dr. Winch was a lecturer for ten years at the Durham University Business School and has been a visiting scholar at business schools in the US, Italy and Australia. His research centres on systems thinking and visualisation processes, which he has used to study both small and large firm issues.

Carmine Bianchi is Full Professor in Business Management in the Faculty of Political Science at the University of Palermo, Sicily/Italy. He is also Director of the System Dynamics Group at the University, and leads the system dynamics activities at CUSA, an organisation associated with the university which undertakes research, consultancy and management education with and for business companies and other organisations. Prof. Bianchi held previous academic posts in the Faculties of Economics at the university of Palermo and Foggia, and is a chartered accountant and worked with one of the major consulting firms.

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### **Introduction**

Globalisation is not exclusively a multi-national or big firm issue. Very few companies, even small-medium enterprises (SMEs) and micro-firms, remain immune to the impacts of globalisation – they may face competition from overseas competitors, may be involved in world-wide supply chains, and/or be looking to expand their own market place internationally. This is especially true of Europe, where the impending expansion of the European Union to include ten new states, will create a trading block of well over 500 million people. Many firms, especially those in hi-tech and component manufacturing sectors that

are in supply-chains serving global industries already have a wide perspective of the world trade system.

However, it appears that many others have the resources or capabilities to exploit competitive advantages beyond domestic markets (Westhead et al., 2002). For many SMEs the challenge of ‘going global’ adds another dimension of challenge to their already difficult environments. Some are successful internationally, but many fail; certainly small firms, especially those not presently involved in exporting, are likely to perceive going international as a risky venture (Burpitt & Rondinelli 2000, Masurel 2001). Amongst the main barriers to internationalisation, according to Karagozoglu and Lindell (1998), is a lack of managerial knowledge and competence, and the importance of personal factors like international business skills and perceptions of the environment, and the variation of these between firms and sectors, are highlighted by Manolova *et al.* (2002). This article seeks to identify factors critical to success, or otherwise, in the process of small firms going global, and to identify common issues. It describes the early results from a recent research project funded by the European Union and undertaken by a group of international collaborators. The project covered eight case studies of small companies involved in international business, two in each of Poland, Italy, Norway and UK \*. The project specified that a systems thinking framework be used to bring together the analysis, and serve as a possible way forward to the integration of structures and development of quantitative decision support models. Therefore factors identified are characterised and explored here through a visualisation process involving the use of causal loop diagrams (CLDs) – diagrams mapping out loops of circular causality - and feedback thinking. It is already recognised that narratives can be a valuable approach in developing the understanding and the practice of entrepreneurship (Barnett & Storey 2000; Rae 2000), and this project utilised such visualisations of key processes as an alternative approach. The visualisation involves mapping out the structure of drivers and decision-making processes to capture and reflect the forces at work and the feedback nature of loops of cyclical causality. Timepaths are sketches of the probable or expected dynamic behaviour of

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\* **Acknowledgement.** The articulation of issues across the case studies was undertaken by the authors. The larger project was co-ordinate by Carmine Bianchi and Enzo Bivona at CUSU/University of Palermo, who also carried out the two detailed case studies in Italy. Acknowledgement is given to the other team members who undertook the case studies in their own countries: Elisabet Hauge and Per-Anders Havnes at the Agder Institute, Norway; Bogdan Piasecki, Anna Rogut and Janusz Kornecki of the Faculty of Management at the University of Lodz, Poland; Tony Gill of Phrontis Ltd in the UK. Tony Gill also focussed attention on the concept of the ‘Deep Niche Strategy’ as evidenced in both UK case study companies.

key variables in the systems, that is, how it is believed they will play out over time. These emphasise that as the impacts of circular feedback structures work through the system, so the fortunes of the firm can vary through time. They were used as part of the project feedback process in a workshop held in Palermo, Italy that included small-firm entrepreneurs, consultants and representatives of agencies supporting small firms, and business academics and students.

The analysis of the eight company cases surfaced a number of issues that are discussed here:

- Stretching capabilities in supporting customers in *New* and *Unfamiliar* markets
- The power of *word-of-mouth* marketing
- Internal competition for funds in pursuing multiple international markets
- The R&D pressures on SMEs

Obviously not all the issues were displayed in every company. In one or two cases there were very interesting examples of how one company succeeded while another failed, and there were pointers as to why. Clearly, eight is a small number of case studies to make definitive judgements, but the issues reviewed here were each critically important to at least one of the firms. Further, while the drivers and impacts are discussed individually here, and that is the way they are most probably considered in the firms too, the structures are complex and there are strong inter-linkages between the drivers and these too were observed and are considered. Therefore while not claiming to be definitive, this analysis does highlight and alert managers of SME in the processes of going global, and also those involved in supporting firms, to some of the possible dynamic consequences and critical success factors.

## **Background to the project**

The fieldwork behind this article was undertaken through a multi-national consortium of researchers with funding for the European Union (EU). The specific EU initiative was concerned with processes that could lead by universities, research organisations, and training agencies that would assist European small-medium enterprises to become more competitive in a global context. This related to the processes of market entry and growth in the international context. This particular project aimed to develop a preliminary framework

that captures SMEs' development processes through their globalisation strategies and related decisions. Such applied research was seen as potentially a useful support not only for entrepreneurs but also for academics and business consultants supporting SME internationalisation processes.

The medium for researching SMEs globalisation processes was to undertake, analyse and compare different European business case studies experiences. The output was to be a preliminary framework, or series of frameworks, that capture the drivers, competitive pressures and company decision-making that impacted on the success, or otherwise, of the case study companies involvement in international markets. In their development and discussion of a *generic business process set* (GBPS), Sackett *et al.* (2003) argue for the visual representation of business activity which, they assert, has numerous benefits in the smaller firm context. They explicitly list the provision of greater understanding for all employees, the facilitation of continuous improvement and as an ideal medium for communication and confidence-building with external stakeholders. However, others focus not just on descriptions of business processes but on the benefits that organisations and individuals can gain from developing the ability to reason about the relationships behind the products and processes they manage using through '*cause and effect thinking*' (Dooley *et al.*, 1998). The proposal specified the use of structural diagramming (Causal Loop Diagrams - CLDs) that reflects causal inter-relationships and focus particularly on circular causality.

Such diagrams can serve as aids in surfacing, articulating and communicating managers' understanding about these underlying processes (see especially Wolstenholme and Coyle (1983), but also Forrester (1958), Coyle (1996), Maani & Cavana (2000), Richardson (1991), Sterman (2000), Warren (2002), Wolstenholme (1990)). The visualisation of the structures enables critical characteristics of the individual loops to be identified. Simply put, some form balancing or goal seeking loops that can bring stability or counter-act planned change, while other are reinforcing in character and tend to self-reinforce or accelerate change. This *system thinking* process then enables links to be made between the mental models of particular structures and their likely consequences in terms of company and sector behaviour. The project included a terminal workshop where the emerging frameworks were to be discussed and refined by a representative group of the various stakeholders involved in supporting European small-medium enterprises successful entry into the global trade system.

The research schema was for four international teams to each undertake case studies of two firms in their own country with recent international experience. The collaborating teams were located in Italy, the United Kingdom, Norway and Poland. (The first two are full EU members, and Poland was then outside the EU but was one of the ten countries that joined in 2004. Norway remains outside the EU but has close trade, social and research agreements.) The selection of countries and research partners was intended to produce a mix of company types and local economic circumstances, so that, within the limited range of eight case studies, results would be as broad-based and generic as possible. The participating researchers and the companies (all are disguised) each studied are summarised in Table 1.

<b><u>Researchers</u></b>	<b><u>Company name</u></b> <sup>**</sup>	<b><u>Company business sector and products</u></b>
<b><i>CUSA / University of Palermo, Italy</i></b>	<b><i>Enviro-Scooters</i></b>	<b><i>Manufacturer of environmentally friendly electrically powered scooters</i></b>
	<b><i>Vino-Regionale</i></b>	<b><i>Winery and distributor of wines produced in the southern Sicily area</i></b>
<b><i>Agder Research Institute, Norway</i></b>	<b><i>Specialist-Cabins</i></b>	<b><i>Manufacturer / installer of specialist cabins in ships and marine oil-rigs</i></b>
	<b><i>Marine-Systems</i></b>	<b><i>Designer / installer of specialised marine control systems</i></b>
<b><i>University of Lodz, Poland</i></b>	<b><i>Lacy-Lingerie</i></b>	<b><i>Manufacturer of mid-market ladies' lingerie</i></b>
	<b><i>Power-Tools</i></b>	<b><i>Manufacturer of special pneumatic powered industrial hand-tools</i></b>
<b><i>Phrontis Ltd., United Kingdom</i></b>	<b><i>Wave-Devices</i></b>	<b><i>Development and licensing of Surface Acoustic Wave (SAW) detection devices for automobile industry applications</i></b>
	<b><i>Bio-Assay</i></b>	<b><i>Manufacture and licensing of specialised biomedical testing / assay systems and products</i></b>

*Table 1 -- Research consortium members and case study companies*

The workshop that terminated the project was held in Palermo and involved around 100 participants. A plenary presentation was given by each of the case study researchers giving a brief overview of their two case study companies, followed by two presentations which drew together the issues and themes from the eight cases – one of which, presented by the author,

<sup>\*\*</sup> The names chosen are intended to disguise the companies' real names while reflecting the general nature of their products. They should not be confused with any other companies with the same or similar names.

used the structural mapping / feedback thinking analysis used in this article. Various plenary and small group discussions then enabled the analysis to be enriched by the observations, experiences and discussions from the workshop participants.

The following sections describe some of the emerging structures that summarise in visual form some of the more important issues and dynamics about which firms that are ‘going global’ should be aware and would have to master, and that constitute the output *framework* specified for the project.

### **Stretching capabilities in supporting customers in *New and Unfamiliar* markets**

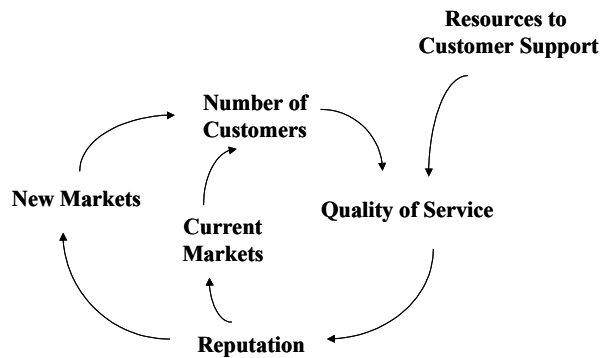
Companies who expand into overseas markets may often see the move as offering a route to rapid sales expansion. This might typically follow a period of success and growth in home markets, and moving into exporting is seen as a natural way of building from their growing home reputation for the quality of their product and sales and after-sales service. Figure 1 captures the structures that typically drive this kind of move. In our cases companies felt, probably with justification, that their growing sales base at home was evidence of the reputation they enjoyed in the market place, and initial success in exporting seemed to provide further evidence. Both the feedback loops in the structural diagram are reinforcing providing strong mutually supporting drivers for growth.

The *timepath*<sup>\*\*\*</sup> in Figure 2 maps out how the export move is expected to provide an additional boost to the already growing business. However, growth that is too rapid and/or not carefully managed can have undesirable consequences. Firms might not recognise that entering new and unfamiliar export markets can be much more demanding on their sales/service function, as they have to contend with language differences, regulatory conditions, longer supply chains, and possibly developing and managing agent networks. In the case of at least one of our case companies, resources were expanded – maybe even in line with customer or dollar sales, but not in line with increased consumption of these resources by their export sector.

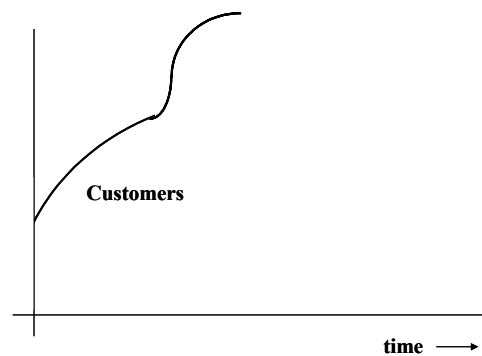
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<sup>\*\*\*</sup> *Timepaths* such as these show how key variables have behaved over time, or might be expected to play out in the future. They are indicative only and intended to support and enhance understanding of the links between the system of interacting drivers and decision processes and resulting behaviour and company performance.



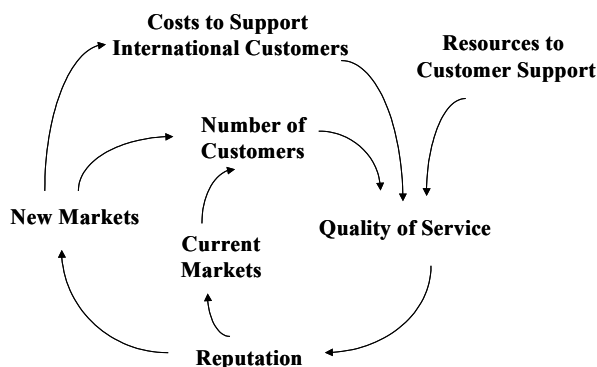


*Figure 1 -- Growth Drivers*

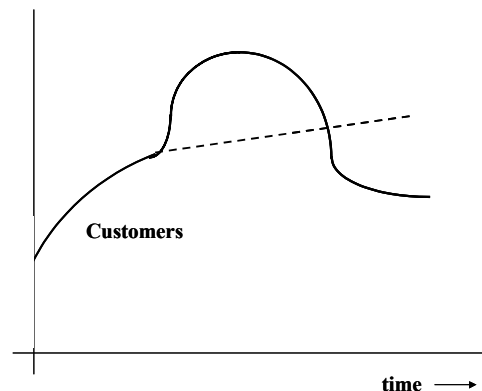


*Figure 2 – Growth with desired export boost*

Figure 3 shows the modified diagram with his effect in place. The addition of the new loop, which reflects the additional cost burden of supporting international customers, now means that the hard fought for quality of service and hence reputation might be jeopardised.



*Figure 3 – Inclusion of new loop reflecting support costs for international customers*



*Figure 4 – Inadequate resources damage growth trajectory*

As the new timepath in Figure 4 then suggests, the loss of quality and reputation will impact on all the company’s operations and it may even lose some of its strength in its home customer base. This situation might be expected to apply especially to smaller firms that are already trying to grow and develop against a possible backdrop of limited capitalisation, and is exacerbated by potential problems in securing payments via longer supply chains and international intermediaries (Anderson et al. 2001).

## The power of *word-of-mouth* marketing

Another phenomenon observed in the case companies, and related to the previous one, concerns the power of word-of-mouth marketing (WOM). WOM marketing can be a low-cost and highly beneficial route to sales growth, and as such is recognised as a potentially effective part of a marketing strategy for a small firm (Stokes and Lomax 2002). However, as Stokes and Lomax also observe, we know relatively little about how WOM processes work for small firms.

At the core of the WOM process is a reinforcing feedback loop through which the existing customer base passes their views of the product or service into the market place and thereby influence the buying decisions of other potential purchasers. When things go well this can strongly influence a firm's success – especially in a new market. Good direct recommendations, image or perceptions and maybe press reports coming from satisfied customers will influence new purchasers. As the customer base grows then, assuming their experiences are still positive, then the recommendation and image grows and sales accelerate. In this mode such reinforcing (positive) feedback has been described by Sterman (2000) as '*the engine of corporate growth*'. The feedback loop is summarised below in Figure 5 with the expected and desired sales trajectory shown in Figure 6. (Sterman, 2000 p366, draws a more detailed version, which shows explicitly the sub-loops arising from WOM mechanisms like market perception and media reports.) It was reported that *Power-Tools*, the Polish specialist producer of hand-held pneumatic tools, was able to successfully enter the Argentinean market on the back of very positive recommendations and introductions by one of its satisfied customers in the Republic of South Africa (Piasecki et al., 2001).

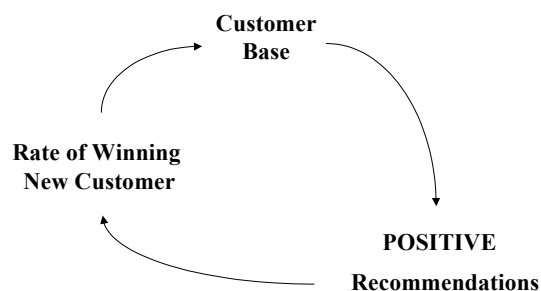


Figure 5 – Reinforcing Feedback from Word-of-Mouth Marketing

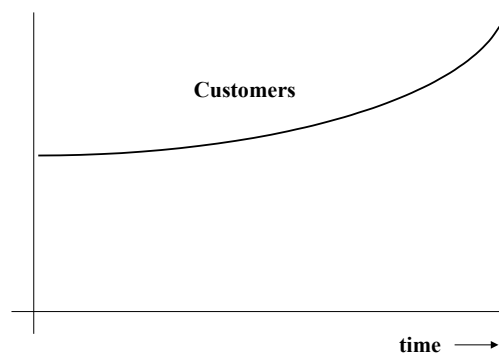
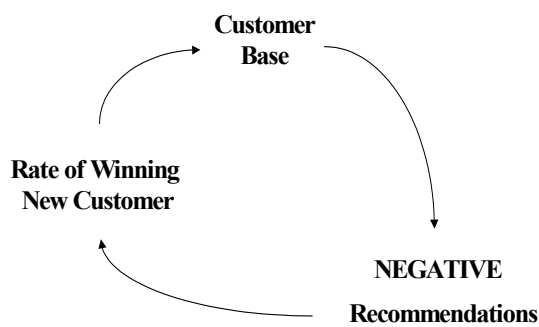


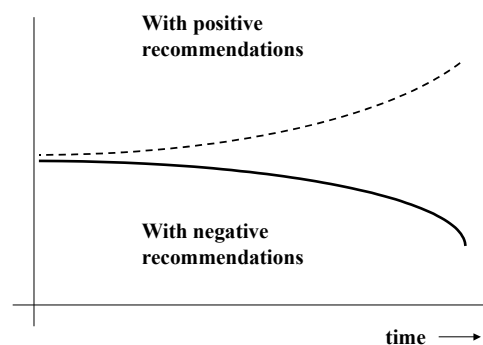
Figure 6 – Reinforcing Feedback – the Engine of Growth

Regrettably for *Enviro-Scooters*, the Italian company that manufactured environmentally friendly motor scooters, an eroding image can have the opposite and disastrous effects (Bianchi & Bivona, 2001). That company’s inability to meet the environmental regulations in all the countries it attempted to enter led to long delivery delays and inadequate product quality earning it only negative recommendations, and as Misner (2002) has ominously observed: ‘... the "average unhappy client" can talk to dozens of people about their bad experience’.

This impacted on *Enviro-Scooters*’ relationships with its customers, and as their suppliers, banks and other supply chain partners also lost faith in the firm, the same word-of-mouth structure lead to their customer base crumbling and they suffered ‘deep insolvency’.



*Figure 7 – Negative Recommendations operating in the Word-of-Mouth Loop*

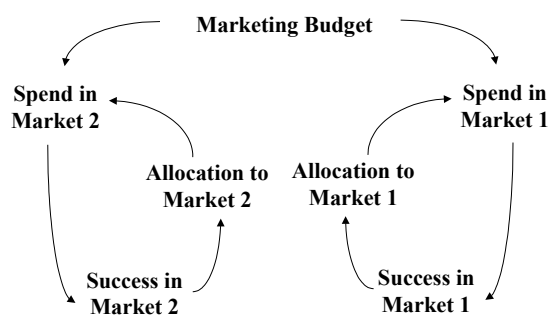


*Figure 8 – ‘Morbid decline’ as customer base collapses*

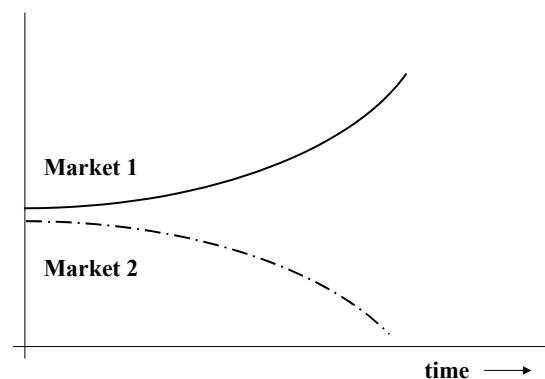
Word-of-mouth marketing is typically viewed either as a beneficial force (e.g. Silverman, 2001) or as a potentially crippling force (e.g. Maxham & Netemeyer, 2002), but Misner, (2002), is one of the rare authors who recognises that it is exactly the same structure that produces both effects. This research has confirmed that, when managed well, WOM can indeed be an important part of a global marketing strategy, but it does need careful attention as the same forces that act as a growth driver can equally drive a company into spiralling decline.

## Balancing investments between different opportunities

Many organisations are able to identify various different opportunities that call upon their resources, and the ability to balance and prioritise between them can be a critical managerial ability. This challenge has been characterised as the "concentration versus spreading debate" in the export literature (Piercy, 1981; Katsikeas & Leonidou, 1996) and extended to a broader internationalisation perspective by Jones and Crick (2004). For the smaller firm this can be a particular challenge as their resources are likely to be limited (Eisenhardt & Schoonhoven, 1996), and they may scarcely be able to resource two competing options. There is a serious risk that in attempting to enter a new market or establish a new sales/distribution channel, they 'cannibalises' the resources necessary to service their existing operations. The temptation is that as the new investment seems to be paying off and the new market or channel grows, then more and more resources are pushed this way. As the existing market is drained of resources, the firm begins to lose ground. As the new market grows and the old diminishes, this seems to confirm the wisdom of the new initiative causing further emphasis on the new markets. The causal loop diagram reflecting this phenomenon can be represented by Figure 9. Both the feedback loops are reinforcing but they show the two characteristic timepaths that this kind of feedback produces – market 1, the new market, thrives with ever growing sales, but at the same time market 2, the old market, fades disastrously. Figure 10 shows the timepaths for sales in the two markets.



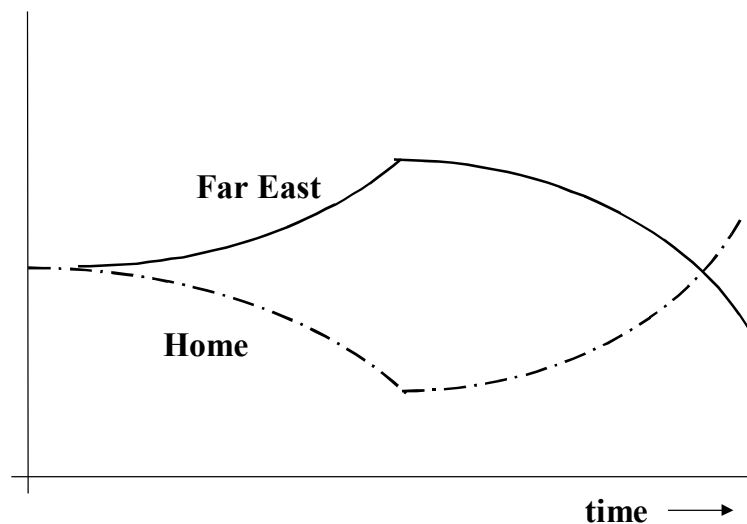
*Figure 9 – As limited budget is split one market may prosper the other decline*



*Figure 10 – Self-fulfilling prophecy of success on market 1*

This damaging dynamic was displayed by two of our case study companies. *Specialist-Cabins* sought new overseas markets as its traditional native market suffered a ship-building and oil-rig construction decline (Hauge and Havnes, 2001). They followed the locus of activity to the emerging ship-building countries on the Pacific Rim – especially Taiwan and

South Korea. They achieved some initial success and focused more and more of their marketing effort into these countries. As a result, their business flourished in those new markets, but as predicted by the systems thinking, the severely limited efforts in their native market caused sales there to all but collapse totally. Eventually the Far East market also suffered a reverse and they realised they would have to seek sales back in their traditional market place. Unfortunately, the years of relative neglect meant their market presence back home was low and in order to re-establish themselves, they had to refocus the majority of their resources back again. They were able to recover their home market position, but now began losing their position in the new markets. The more complicated dynamics are shown in Figure 11, where their inability adequately to resource both marketing efforts concurrently meant a flip-flopping back and forward between the two markets.



*Figure 11 – Fluctuating success in different markets as marketing effort is switched between them*

Other firms evidently managed this balance more effectively; for example, the Sicilian wine producer *Vino-Regionale* phased its move into new markets very carefully so that its limited skills in exporting could be targeted at mastering the key factors – distribution channels, product positioning, labelling, etc. - for different countries in turn, and in a way that it would progressively enhance its exporting knowledge-base (Bianchi and Bivona, 2001).

Once again though, *Enviro-Scooters* suffered from a related problem (Bianchi and Bivona, 2001). This company used their website as a major marketing tool. This seemed a very successful medium and as its image grew it was able to enjoy rapid growth in orders. This

success spurred them to invest heavily in their website and other promotional activities. Unfortunately, the growth in orders was not matched by investment in capacity and manufacturing to fulfil the orders, and the more the orders grew, the less able the company was to deliver its product. This was the factor that led to the long delivery delays and poor product quality that, through the negative word-of-mouth marketing process discussed earlier, caused their business image to decline. In an attempt to boost sales to counteract the effects of their growing bad image, they were tempted to invest even further in their website and other promotional activities, deepening still further the crisis. (More detailed diagrams with feedback loop characterisations appear in Bianchi and Bivona, 2001). They were then gripped by downward pressures emanating from two strong self-reinforcing feedback processes, which eventually led the company to fail.

### **Pressures on research and development in the smaller firm**

The importance and complexities of R&D in the global firm are well known and documented (see, for example, DeMayer, 1992; Bridges *et al.*, 1991). However, when a small firm, especially in hi-tech industries attempts to compete in a global market place they can be very vulnerable to the investment strength of worldscale competitors. During the case researches, it was observed that both the UK companies, which were involved in hi-technology research and licensing, were adhering closely to a 'deep niche strategy'. They limited their spheres of operations to very narrow fields; indeed *Bio-Assay* was spun-off from a larger company in order to specialise in inhibin-based products and services. Similarly, *Wave-Devices* concentrated its activities only on that technology, and its specific application in the automotive industry (for which it holds world-wide exclusive licenses to the patents.) Both companies were very small, undertook limited or no manufacturing, and focused their research and/or product research and development in these very narrow fields.

Among the most influential texts by the popular business gurus were the '*Excellence*' books of Peters and Waterman (e.g., 1982), and one of the key success factors identified by those authors was 'sticking to the knitting'. The principle in that phrase was that firms can attain greatest success if they focus on their core business, and do not divert attention into new areas of activity, thereby spreading their resources widely, and particularly into unfamiliar areas where the cost and effort investments would be disproportionately high. Keogh and

Evans (1998) specifically identified maximising niche opportunities as a critical success factor in new technology-based SMEs. This concept has been further developed into what is now termed a ‘deep niche strategy’ (Comes-Casseres & Kohn,1997). The inter-relationships in the R&D system are shown in figure 12, and are discussed in more depth in Winch and Gill (2003).

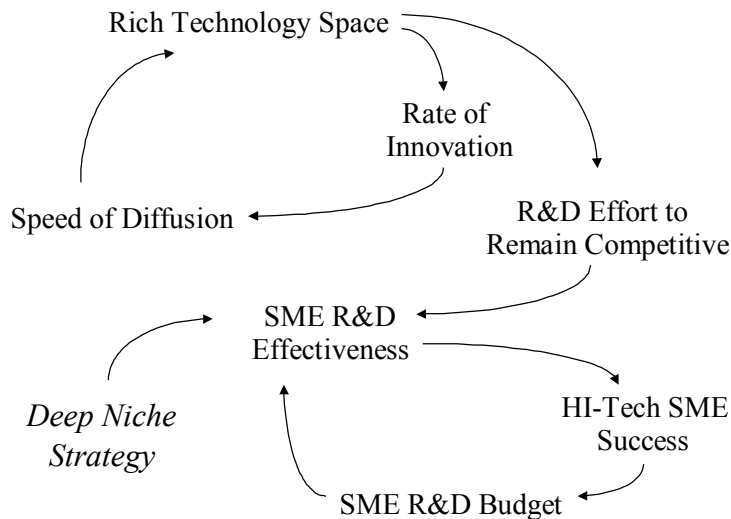


Figure 12 : Importance of a Deep Niche Strategy in an SME's R & D Effort

In this diagram, the top loop reflects the well reported phenomenon that ‘*Technology Space*’, the *Rate of Innovation* and the *Speed of Technology Diffusion* are mutually supporting in a reinforcing feedback loop. The bottom loop reflects the R&D effectiveness of a typical hi-tech SME. Linking the two loops is the variable *R&D Effort to Remain Competitive* – this grows as the technology space grows, and thereby poses a major threat to the *R&D Effectiveness* of smaller enterprises with limited research budgets. The importance of the deep niche strategy, which focuses effort into very narrow niche product areas, is therefore shown to enable the SME to maximise the effectiveness of its limited research budget.

However, a most interesting extension of this thinking emerged concerning one of the other case study companies in a decidedly non–hi-tech industry. This firm was *Lacy-Lingerie*, the Polish apparel company specialising in undergarment design and manufacture. (Piasecki *et al.*, 2001). Its interesting parallel to the hi-tech firms concerned its fashion design function. They too focused on a narrow market segment – ladies’ mid-market-priced luxury lingerie. In an industry where design flare is similarly expensive to acquire, and achieved in this case by

the employment of an established French designer, this strategy also enabled the firm to maximise the effectiveness of its limited design resource.

### **Conclusions and Managerial and Policy Implications.**

The project's primary objective was to identify some of the major processes and challenges that European SMEs entering the world trade system would have to face and manage for their global initiatives to be successful. It was also part of the project's objectives that these should be characterised in system thinking terms, to examine the effectiveness of this approach in summarising the complex inter-relationships and in communicating them to entrepreneurs, small business consultants, support agencies, and business academics and students. The project specification funded by the EU was that this be achieved through fieldwork of case-studies with eight manufacturers in different industry sectors and in four different European countries (but not exclusively present EU members).

There are two overarching lessons concerning the process of 'going global' that emerge from this project:

1. Firstly, the types of challenge identified as critical in the case study companies are not necessarily restricted either to small-medium firms, nor specifically to the process of internationalising their business. To some extent the first three identified, stretching capabilities in *New* and *Unfamiliar* markets, the power of *word-of-mouth* marketing, and the issue of *internal competition for resources*, are generic business challenges. It could be argued, and it is accepted here, that the ability to deal with such challenges on a routine basis is what marks out the successful businesses and entrepreneurs. The fourth, the adoption of a deep-niche strategy, is also a generic product development/marketing strategy, not necessarily export related, but it is likely to be of greater and greater importance in small and very small firms as research budgets get progressively more constraining.

What the cases revealed was that each of these played critical roles in at least one case-study company and that these companies could be in widely differing industry sectors. It was further clear that in many of the cases, the importance of these



feedback structures was not evident to the company entrepreneurs at the time. Typically, this is a symptom of the typical small-firm trait of managers tending to focus their attention on the details of operations or on the initiative uppermost in their minds, without seeing through all the consequences of their actions. Further, some of these challenges face companies concurrently, and here the interaction between them can amplify the effects – this was most obvious in the case of *Enviro-Scooters*, where two strong reinforcing loops cause their image and sales to spiral down to eventual failure.

With the exception of *Enviro-Scooters*, all these firms continue to operate successfully, so the negative impacts of some of these structures were being experienced by otherwise successful and competent entrepreneurs.

2. The most obvious success factor in going global coming from the cases was the need to maintain balance between existing products and channels and the newer opportunities being sought in the international market place. When resources are limited, small firms can easily over-extend, especially when a new global initiative appears essential or exciting – and there is a temptation to draw resources essential to maintaining smooth operations, for example from expanding manufacturing capacity, and/or safeguarding the base demand in home markets. Over-extension presents risks in not being able deliver promised product without delay and with necessary quality, with the resulting impact on company image, and/or of loosing presence in home markets that are temporarily low but then have to be won back on an upturn. The tendency for there to be self-fulfilling prophesies also emerged – a predicted ailing home that is starved of resources experiences further downward pressure, whilst an evidently more attractive export market proves successful, but maybe only because of the over-commitment of resources.

The ‘deep niche strategy’ is a very clear strategy that explicitly controls this tendency, and can be relevant and effective outside the hi-tech R & D sphere with which it is traditionally associated.

There were suggestions of further possible important factors emerging from the cases, though these were limited to single firms or only weakly evident. The endemic cash-flow problem

for lowly-capitalised small firms, whereby manufacturing costs have to be paid up-front but sales revenues only appear after a delay, can be seriously exaggerated by much longer payment delays when distribution channels are extended both geographically and through additional stages like overseas agent and distributors (Burpitt & Rondinelli 2000). Both the UK hi-tech firms had clear strategies of multi-tasking where, as is typical in small firms, senior managers cover critical company roles single-handedly. If that one person is away, for example on an overseas visit, a fellow manager might be able to field a major query without having to wait to contact the primary manager, so minimising delays to customers, suppliers and other partners. Also, there is probably much scope for smaller firms to gain great learning benefit about overseas markets through supply chain partners who may already be positioned overseas. The reasons why firms go global also differ– for example, from firms who see exporting as a natural extension and a growth strategy on the back of successful and solid home markets, to firms who may see going international as the only way of maintaining sales when home markets are falling (Hauge and Havnes, 2001; see also Karazoglu & Lindell 1998). These different drivers are likely to be correlated with other observed phenomena – companies forced to export to maintain sales are probably more likely to be resource-constrained and to over-extend themselves. Any expanded study in the future could include a concentration on these issues.

The research by Anderson *et al.* (2001) also identified critical needs for SMEs going global and recommended that a range of services are required that ‘... promote a process of re-evaluation of existing business assumptions and the development of a new dominant logic throughout the organisation.’ A second objective of the project was therefore to place the observed factors into a systems thinking framework, and to assess the usefulness of this approach. The scope of the project did not allow for a formal evaluation of the effectiveness of this way of representing the structures and decision processes, and evidence is therefore anecdotal based on the positive outcome of the workshop and subsequent presentations of this research to other groups. *Causal Loop Diagrams*, along with the *Timepaths*, did prove to be visually stimulating aids to communicating complex ideas, especially where initiatives may have had, or could have, unexpected and undesired secondary consequences. They also emphasised that many problems and solutions are generic and that while every going global initiative may have factors unique to the individual SME, similar issues are likely to have been faced before, and solutions are possible. Finally, they demonstrated how apparently beneficial structures can at the same time pose major threats – word-of-mouth marketing can be a strong

mechanism for growth, but can also just as easily lead to spiralling down-turns. Audiences frequently respond with us-too examples of their own when structures are presented in generic forms rather than in company specific descriptions, confirming the use of these approaches as a valid alternative to Rae's use of narratives for entrepreneurial learning.

In summary, the project, though limited in scope, yielded valuable results concerning the nature and commonality of the challenges facing a wide variety of SMEs entering the world-trade system, and the potential benefits of using systems thinking approaches to capture and communicate the structures that create these challenges.

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