

# **Performance of Scottish Exporters: Survey Results**

**Conference Theme 2.1 Market Entry and Locational Strategies**

**Working Paper**

**A paper submitted to the  
European International Business Academy Annual Conference  
University of Maastricht  
10-12 December 2000**

Colin N Wheeler  
Department of Marketing  
University of Strathclyde  
173 Cathedral Street  
Glasgow  
G4 0RQ

Tel: +44 (0)141 548 3193  
Fax: +44 (0)141 552 2802  
E-mail: [colin@market.strath.ac.uk](mailto:colin@market.strath.ac.uk)

James H Taggart  
Department of Management Studies  
University of Glasgow  
55 Southpark Avenue  
Glasgow  
G12 8LF

Tel: +44 (0)141 330 5410  
Fax: +44 (0)141 330 5669  
E-mail: [James.Taggart@mgt.gla.ac.uk](mailto:James.Taggart@mgt.gla.ac.uk)

## **Abstract**

This paper assesses the characteristics of a sample of 154 manufacturing exporters based in Scotland, using data collected by postal survey. The export performance literature is not unanimous in its view of parameters related to export performance. However, the data developed for this research project indicates strongly that performance is strongly linked to firm size (measured by both employee level and overall sales) and the firm's exposure to export markets, but only weakly linked to longitudinal experience in exporting. A number of implications for managers, academics and policy makers are developed.

**Key Words:** Export, small business, Scotland, performance

# **Performance of Scottish Exporters: Survey Results**

## **INTRODUCTION**

Over the last twenty years, Scotland has become progressively more dependent on external trade. Exports, both "internally" to England and to other parts of the European Community, have grown very substantially, though other destinations (particularly North America) have also yielded good export expansion. By 1998 Scottish exports had risen to some £19.3bn, or 12.3 percent (12 percent in 1997) of all UK exports, leading to one of the world's highest per capita performances - nearly £4,000 (SCDI, 1999). Indeed, over the same period, exports have risen from less than 30 percent to almost 40 percent of final demand (Peat and Boyle, 1999, p.38). The UK government has encouraged and supported this growth, both directly and through a variety of economic development agencies. Since the establishment of the Scottish Parliament in 1999, a significant part of the export development remit has been devolved to Edinburgh as the responsibility of Scotland's Minister for Enterprise. As a result, exporters and their activities have achieved an even higher profile than previously. Despite all this, relatively little has been published about Scottish exporters and their performance. It remains unclear what the identifying characteristics of Scottish exporters are, and whether they differ from those reported in the wider export performance literature.

There are a number of recurring themes in this literature. Explanations of why large firms would be more successful than small firms focus on smaller firms having less managerial and financial resources for exporting and less knowledge about export markets (Nakos et al., 1998). Also, small firms are less able to afford the costs of mistakes in international markets which, in

extreme circumstances, will threaten the survival of the firm. The smaller firm is also more likely to have satisfactory sales in the home market and so be less reliant on foreign markets. However, wider market coverage has the potential to make a firm's sales more stable. Compared with a firm selling to a few markets, it is less likely that there will be a fall in demand in all of the markets at the same time (Piercy, 1982). The firm also has more opportunities to learn how to enter markets and then use this knowledge to develop other markets more effectively. Increasing export experience may also lead to better market knowledge, more effective exporting and better export performance (Johanson and Valhne, 1977). In this paper, one of a series exploring export performance in the Scottish economy, we investigate the characteristics of Scottish exporters with respect to firm size, involvement in export markets and export experience.

## **LITERATURE REVIEW**

There is broad agreement that export performance is not a uni-dimensional concept; the question then arises which dimensions of performance should be measured. Matthyssens and Pauwels (1996) focus on the parties or stakeholders interested in export performance. Different stakeholders (management, shareholders, export development agencies, government) will pay attention to different dimensions of export performance and assess performance in various ways.

Madsen (1998) argues that although exporters focus on short term objectives, longer term objectives (e.g. increasing the capabilities of a firm by developing more export markets, and increases in firm size) are important dimensions of export performance: "Actual sales seem to be much more important than the enhancement of organisational capabilities and future profits". The dimensions of export performance investigated in the present paper are longer term

objectives; these are of interest because they may reflect increasing organisational capability, even though management view short term sales as a key measure of export performance.

### **Firm size**

In the literature there is evidence for a positive relationship between firm size and export performance. A review of the literature by Chetty and Hamilton (1993) reports some positive effects for firm size, and specific studies supporting this relationship include Culpan (1989), Walters and Samiee (1990), Kaynak and Kuan (1993), Ito and Pucik (1993), Moini (1995), and Nakos et al. (1998). However, there is a problem with the identification of small, medium and large firms as the literature is somewhat inconsistent in the way these categories are defined (Reid, 1985; Matthyssens and Pauwels 1996). Zou and Stan (1998) review studies of export performance published between 1987 and 1997, of which 22 included results related to firm size. Taking number of employees as an indicator, Table 1 illustrates the variety of employment categories used, as well as instances where firm size is not reported at all. Clearly, there is little consistency in the definition of small, medium and large firms.

The lack of consistency has also presented problems for the European Union. Until 1996, the Commission defined small firms as employing between 10 and 100 people. Medium size firms have 101 to 500 employees, and large firms over 500 employees. Companies with 9 employees or less were defined as micro firms (Nakos et al., 1998; Storey, 1994). These divisions correspond loosely with research that identifies changes in firm structure. Storey (1994) has shown that firms employing between 10 and 20 people have begun to recruit managers and that by the time a firm employs about 100 people or more there are teams of managers within the

**Table 1**  
**Reported Measures of Firm Size**

<b>Author</b>	<b>Employees</b>
Axinn (1988)	Up to 50, 50-150, 150+
Bodur (1994)	No categories reported
Culpan (1989)	Up to 100 (small), 100 to unspecified (medium)
Das (1994)	Up to 499, 500+
Evangelista (1994)	Up to 99 (small), 100+ (medium & large)
Holzmuller & Kasper (1991)	50-1000
Holzmuller & Stottinger (1996)	50-1000
Kaynak & Kuan (1993)	Categories not specified
Moini (1995)	Up to 499, 500+
Louter et al (1991)	0-10 (small), 11-100 (medium)
Madsen (1989)	20-200
Naidu & Prasad (1994)	Up to 200, 200+
Walters & Samiee (1990)	1-99, 100+

firm. At this stage, the owner's responsibilities have been devolved and the firm is no longer managed in a personalised way. Hence the distinction that the EU makes between small and medium size firms reflects changes in the capabilities and resources of the firm.

Increases in productivity complicate the issue. There has been a steady increase in productivity over time enabling firms to have the same output but employ fewer people, or to increase output without a corresponding increase in workforce numbers. For example, in 1971 a small firm in the UK was defined as 200 employees by the Bolton Committee. Increases in productivity by 1989 suggested that a small firm should by then be defined as having nearer 100 employees (Dunne and Hughes, 1989). If a firm's sales are used as a measure of size instead of employment there are still problems, since monetary values are difficult to compare over time, require the use of some form of price index comparable across countries, and adjustments have to

be made for currency fluctuations. Thus, even though there is evidence for firm size being associated with better performance there is a lack of clarity about classification of firm size associated with various levels export performance. Consequently, the first research question considered here is:

***RQ1: How is the performance of Scottish exporters differentiated by firm size?***

### **Export Involvement**

Studies of the relationship between wide market coverage and export performance have produced mixed findings. There is some evidence to support a positive relationship between export performance and the number of markets entered. Nakos et al. (1998) report that firms with a wider market coverage performed better, and Bodur (1994) finds that the more intensive (successful) exporters have a market diversification strategy, adapt their marketing strategies to individual markets and give close support to their distributors. Lee and Yang (1990) focus on export market expansion strategies and find some support for diversification where firms have entered 20 or more markets. Conversely, Donthu and Kim (1993), and Kaynak and Kuan (1993) find no positive link between performance and number of markets; Zou and Stan (1998) find almost no support for concentration or diversification. Thus, the second research question is:

***RQ2: How is the performance of Scottish exporters differentiated by foreign market coverage?***

### **Export Experience**

Studies of the relationship between firms' export experience and performance have also produced mixed findings Aaby and Slater (1989), Dennis and Depeltieau (1985), Tesar and

Tarleton (1982) and Bilkey (1978) all conclude that length of export experience is positively associated with success. Further, Da Rocha and Christensen (1994) find that experienced exporters are more likely to be aggressive exporters, and Dennis and Depeltieau (1985) note that export experience is positively associated with export success. Conversely, Moini (1995) finds no relationship between success and length of time in exporting. Similarly, Kaynak and Kuan (1993) and Louter et al. (1991) find no strong relationship between exporting experience and performance. There is also some evidence for an inverse relationship between experience and performance. Cavusgil (1984) reports that export experience is not associated with stage of internationalisation, as younger firms lack the cost and resource advantages to compete in the home market. Cooper and Kleinschmidt (1985) suggest that better performance is linked with shorter export experience, and Das (1994) finds that more successful exporter firms are younger. Czinkota and Ursic (1991) also note that no-growth firms have significantly more export experience than growth firms. Thus, the third research question is:

***RQ3: How is the performance of Scottish exporters differentiated by export experience?***

### **Characteristics of Successful Exporters**

Reviews of the literature by Zou and Stan (1998), Chetty and Hamilton (1993), and Aaby and Slater (1989) have produced some agreement on the characteristics of successful exporters. Zou and Stan and Chetty and Hamilton use the vote-counting method for combining findings from disparate studies since, otherwise, review and synthesis of studies of export performance is fraught with problems. Zou and Stan report that the research problem in different studies is often conceptualised and measured in different ways (including the nature of export performance

itself). There has also been a relative lack of research that builds upon previous findings leading, in turn, to a fragmentation of research effort. They conclude that certain characteristics may well be associated with export performance: export strategy (particularly product adaptation and close support for the intermediaries), management commitment, resources committed, and some firm and industry parameters.

## **RESEARCH METHOD**

In order to build upon previous research, we used items tested by Cavusgil and Zou in 1994 (with some alterations for local circumstances) to assess export marketing strategy and management, firm, market and industry characteristics. A mail survey questionnaire was designed that could also be used to check data by telephone. Research data was gathered at the product/market level. Respondents had the choice to offer more than one product-market project if appropriate (i.e. a widget exported to France and a sprog exported to Spain) The mailing list was drawn from an up-to-date database of Scottish exporters maintained by the Scottish Council for Development and Industry. The questionnaire was mailed to a sample of 306 Scottish exporters in the summer of 1998. A reminder was sent and, subsequently, some data was checked using a telephone follow up. Overall, useable replies were received from 151 Scottish exporters, representing a response rate of 49%. Three respondents provided two cases each of product-market projects, giving a total number of 154 cases for analysis.

The majority of respondents were involved either in textiles (35), food (33) or metals (17). Nine of the respondent firms were in the chemicals industry, 38 in a number of aspects of engineering, and 22 in other manufacturing sectors. Just over 40 percent of responses came from chief executives, 28 percent from other directors, and 31 percent came from other executives.

The average respondent employed 425, and had sales of some £35 millions (of which about a third were exports). It currently dealt with customers in 18 countries, and had been exporting for about 30 years.

Responses to the three research questions identified above were evaluated by t-tests of the means of sub-samples, with significant results distinguished at  $p \leq 0.05$ . Size was measured by two variables, number of employees and sales revenue. On the first variable, small firms were defined as employing less than 80 employees ( $n=73$ ), with large firms having 80 or more employees ( $n=81$ ). On the second variable, small firms were defined as having sales of up to £4m per annum ( $n=73$ ), with large firms in excess of £4m ( $n=81$ ). Foreign market coverage was defined by the number of markets in which the particular product was sold (narrow = 10 or fewer markets,  $n=81$ ; broad = 11 or more,  $n=73$ ). Export experience was defined by the number of years a firm had been involved in a particular product-market combination (brief = 19 years or less,  $n=75$ ; extended = 20 years or more,  $n=79$ ).

## RESULTS

### **Firm size**

Table 2 shows that, compared to smaller firms, those with 80 employees involve themselves more in careful export planning, are more likely to adapt the product subsequent to foreign market entry and to adapt advertising and promotional programmes, and they provide more training for the export market intermediary (agent, distributor etc.). They show significantly greater management commitment to exporting, as well as greater commitment of resources for exporting in general and for the specific product/market in particular. The larger company's

export product has a higher requirement for sales training and greater service needs. Finally, larger firms appear to be involved in export markets with significantly higher potential demand.

**Table 2**  
**Employment comparisons**  
**Large firms (80 employees or more), small firms (less than 80 employees)**  
**Significance assessed at 0.05)**

Variable	Employment 80+		Sales £4.1m +	
	t-value	P-level	t-value	P-level
<b>Export Marketing Strategy:</b>				
Extent of careful planning	-2.90	.00	-4.13	.00
Sales targets set			2.90	.00
Product adaptation subsequent to entry	-2.05	.04	-2.04	.04
Change in product positioning			-2.60	.01
Adaptation of advertising and promotion	-3.58	.00	-3.27	.00
Support for intermediary			-2.59	.01
Training provided for intermediary	-2.46	.02	-2.81	.01
<b>Firm and Management Characteristics:</b>				
Extent of management commitment	-2.20	.03	-4.16	.00
Extent of resources committed to product/market	-3.96	.00	-4.59	.00
Resources for export development	-4.04	.00	-4.24	.00
<b>Product Complexity:</b>				
Sales training required	-3.36	.00	-3.72	.00
Product's service requirements	-2.82	.01	-2.67	.01
<b>Export Market Characteristics:</b>				
Potential demand in the export market	-2.57	.01	-3.05	.00
Competitive intensity			-2.45	.02
Degree of product exposure			-3.90	.00
Legal barriers in export market			-2.16	.03
Regulatory barriers in export market			-2.35	.02

Where size is measured by sales value, all of the above relationships apply. In addition, larger exporters are more likely to change product positioning for the foreign market, provide more general support (as opposed to training, specifically) for the intermediary, and are more likely to be involved in overseas markets characterised by competitive intensity, high product exposure,

and high levels of legal and regulatory barriers. Notably, there is one area where smaller firms show a more aggressive performance: they are more likely to set formal sales targets for the export market.

**Table 3**  
**Export breadth comparisons**  
**Wide (11 or more markets), narrow (10 or fewer markets)**  
**Significance assessed at 0.05**

Variable	t-value	P-level
<b>Export Marketing Strategy:</b>		
Extent of careful planning	-3.99	.00
Sales targets compared with home market	-1.99	.02
Product adaptation prior to entry	-2.05	.04
Change in product positioning	-1.96	.05
Support for intermediary	-3.51	.00
Training provided for intermediary	-2.37	.02
<b>Firm and Management Characteristics:</b>		
Extent of management commitment	-3.14	.00
Extent of resources committed to product/market	-3.76	.00
Resources for export development	-3.05	.00
<b>Product Complexity:</b>		
Technology orientation of product	-2.19	.03
Sales training required	-3.48	.00
Product's service requirements	-3.26	.00
Patent	-3.77	.00
<b>Export Market Characteristics:</b>		
Potential demand in the export market	-2.41	.02
Strength of position in export market	-4.74	.00
Market share compared with leading domestic competitor	-3.26	.00
Market share compared with leading foreign competitor	-3.82	.00
Degree of product exposure	-3.58	.00

### **Number of export markets serviced**

Firms exporting to 11 or more markets vary significantly from less extended exporters in a number of ways (see Table 3). In terms of export marketing strategy, the more highly developed firms plan more extensively, have higher sales targets abroad, are more likely to adapt the export

product (prior to entry) and its positioning, and they provide more and broader support for the intermediary. They show more commitment in terms of management motivation and resources. They provide more complex products (both in terms of technology and service requirements) with better patent protection and a greater need for sales training. Finally, they tend to export to very competitive markets with high potential demand, but where the overall position in the export market is strong; market share compared to domestic and foreign competitors is generally higher, as is the degree of product exposure.

### **Export Experience**

There are very few characteristics that differentiate between firms that have exported for longer or shorter periods. The former are more likely to change product positioning for the export market and to provide resources for export development, and they tend to have a somewhat stronger market position. Conversely, less experienced firms are more likely to export to markets that are assessed as culturally similar. Thus, many fewer parameters are involved here and, clearly, length of export experience yields a less sharp profile than either size or firm or breadth of export market experience.

**Table 4**  
**Comparisons of export experience**  
**More experienced (20 years or more), less experienced (less than 20 years)**

Variable	t-value	P-level
<b>Export Marketing Strategy:</b>		
Change in product positioning	-2.71	.01
<b>Firm and Management Characteristics:</b>		
Resources for export development	-2.03	.04
<b>Export Market Characteristics:</b>		
Cultural similarity of the market	3.20	.00
Market share compared with leading domestic competitor	-2.01	.05

## DISCUSSION

Overall, the findings for firm size and market coverage indicate that characteristics of successful exporters are more evident among larger firms and those with a wider market coverage (Zou and Stan, 1998). This provides some support for the view that there is a relationship between firm size and export performance (Chetty and Hamilton, 1993), and between market coverage and export performance (Nakos et al., 1998). On the other hand, more experienced firms exhibited very few of the characteristics of successful exporters, providing some support for the view that there is no relationship between export experience and performance (Moini, 1995). The proposition that younger firms are more successful exporters was not supported, contrary to the results of Cooper and Kleinschmidt (1985) and Das (1994).

There is also a question about firm size and numbers employed. The characteristics of firms with 80 or more employees in this study are similar to the characteristics of high performing firms identified in the literature (Aaby and Slater, 1989). These firms both plan more and adapt elements of their export marketing strategy more. There is greater management commitment, and more resources are allocated to the product market and to the firm's overall export effort. The larger firm's products are more complex, requiring more sales training and servicing. Storey (1994) offers an explanation in the way a firm evolves in a domestic context, that may also help to explain the growth of exporting firms. He notes changes in structure as firms grow, with those between 10 and 20 employees recruiting their first managers; by the time they have 100 employees, the firms have teams of managers and are no longer managed in a personalised way. On the basis of the research carried out for this project, we may offer an informed speculation about such findings. In our sample, the explanation could be that, as the firm recruits more staff, it is able to commit more resources to exporting, develops better knowledge of export markets

through specialisation among export staff, and is better able to adapt its export marketing strategy to the market as a result of increasing skill levels.

If the break point of 80 employees in this sample indicates a change in the nature of the firms, a number of issues arises. The European Commission (1996) defines a small firm as having up to 100 employees and a medium size firm as having 100 or more. By virtue of size, the two types of firms are assumed to have different characteristics. Presumably, the logic is that small firms are more resource constrained and have less capability than the medium size firms. However, in this sample of Scottish exporters, the break point is 80 employees for firms that have significantly more of the characteristics of successful exporters including management commitment and extent of resources for exporting. One explanation for this could be that, in the last decade, increases in productivity per employee have made the EU definition of a small firm questionable. In this study, 80 employees may mark a significant change in capabilities, but further specific research will be required to clarify this point.

It should be noted in passing that there may be some systematic connection between firm size and the export market chosen, though the relationship is not quite significant at the 5 percent level. Among smaller firms, 24 export to Europe, 14 to North America, 14 to East Asia, and 21 to the rest of the world; the corresponding figures for larger firms are 34, 21, 16, and 13 respectively (chi square = 6.76,  $p = 0.08$ ). However, there is a statistically significant relationship between size of firm and industry (see Table 5). Small firms are less heavily represented than might be expected in the food sector and better represented in "other manufacturing"; the opposite is the case for larger firms.

**Table 5**  
**Comparisons of firm size against industry**

<b>Industry</b>	<b>Smaller firms</b>	<b>Larger firms</b>
Engineering	14	24
Textiles	17	18
Food	10	23
Other manufacturing	32	16

Chi square = 12.73; expected value at 5 percent significance level = 7.81

The characteristics of firms exporting to eleven or more countries differ radically from those exporting to ten or less. Export marketing strategies are adapted more, there is more management commitment and resources committed to exporting, and firms have more international experience. The products sold are based on relatively high technology. This would seem to suggest that such firms have a diversified country market strategy. Their position in export markets is strong, with relatively high market share compared with domestic and foreign competitors. The product is well known and potential demand in the market is high. There is no significant export market or industry effect in relation to breadth of export experience.

For the sample of firms used here, there is no strong differentiation by length of exporting experience, nor is there any systematic relationship with the export markets served. However, there does seem to be an interesting industry effect (see Table 6). Textile firms are much more heavily represented among experienced exporters, while less experienced companies tend to be more heavily involved than expected in "other manufacturing". This effect may well be explained by the past structure of Scottish industry, where textile firms were among the earliest exporters and survival in a difficult industry could be systematically related to maintaining and expanding export markets.

**Table 6**  
**Comparisons of export experience against industry**

Industry	Less than 20 years	More than 20 years
Engineering	21	17
Textiles	9	26
Food	16	17
Other manufacturing	29	16

Chi square = 10.70; expected value at 5 percent significance level = 7.81

Analyses of the company, product, marketing and market factors that favour a diversification/spreading strategy point to the importance of high technology products, appropriate export marketing strategies combined with management commitment, and the resources to develop and implement export marketing strategies (Piercy, 1982). Often firms aim for a small share of each market they enter. In this study, an explanation for companies apparently pursuing a diversified market strategy may be that some product, company and marketing factors in particular, favour this approach. The products are complex and relatively high-tech; the firm has the commitment and resources for exporting, and is able to assess market needs in many markets. However, with strong positions in export markets, the firms have not been pursuing a diversification strategy based on low market share.

A limitation of this research is that, for investigation of market coverage, firms were asked to how many markets they exported; but detailed data was collected on one product market venture only per company. A more comprehensive approach may be to assess more of the product market strategies in each firm to give a better understanding of market strategies. In addition, there may be some possibility of respondent error. In the smaller firm, four in five questionnaires were answered by the Chief Executive or another director, while in the larger firm it was twice as likely that the response came from a lower level executive (significant at  $p \leq 0.05$ ). Respondent

error may be present if it is assumed that directors are better informed about the detailed characteristics of export products and markets. Alternatively, it may be equally reasonable to assume that skill specialisation in the larger firm would mean that lower level executives could have more detailed knowledge.

Neither larger firms nor those involved in many markets saw their product as price competitive. Comments from respondents in the survey clearly stated that the strength of the pound was a problem, and were very keen for government to take steps to reduce its value. Recently, a survey by Dun and Bradstreet (2000) reported that exporters are learning to live with the strong pound. The reasons for this are the stability of the pound and the continuing expansion of the world economy. Firms are finding export orders relatively easier to win in more buoyant global markets as customers perceive the strong pound as less of a disincentive to buy in such a favourable economic environment. It is interesting that, in this case, market demand may ameliorate a currency effect; this underlines the necessity for managers to analyse carefully these effects.

The results of this research, as they pertain to the three research questions set out earlier, are summarised in Table 7.

**Table 7**  
**Summary of research results**

<b>Research Question</b>	<b>Research Outcome</b>
1. How is the performance of Scottish exporters differentiated by firm size?	Larger firms have significantly higher scores over 16 variables measuring strategy, market, product and organisational characteristics. Smaller firms tended to set higher sales targets. Persuasive finding.
2. How is the performance of Scottish exporters differentiated by foreign market coverage?	Larger firms have significantly higher scores over 18 variables measuring strategy, market, product and organisational characteristics. Persuasive finding.
3. How is the performance of Scottish exporters differentiated by export experience?	Larger firms had higher scores on 3 variables, smaller firms on 1. Weak finding, perhaps indicative.

### **IMPLICATIONS**

For academics there are several implications. First, the changing perceptions of the strength of the pound underline the care that should be taken when researching price competitiveness. As Zou and Stan (1998) note, the research on pricing is far from conclusive and the assumption that a highly valued currency always precludes price competition may not be valid. Second, evidence from this study suggests that the capabilities of firms do not change at the employment level used by the EU to define small and medium size firms (100 employees), but at a lower level (80 employees). As there are assumptions about the resources and capabilities underlying the definitions of small, medium and large firms, researchers need to assess carefully the most appropriate way to categorise firms and their capabilities. In particular, the possibility must be carefully evaluated that, with the passage of time, critical levels of export skills and capabilities are acquired at lower levels of firm employment. Third, the characteristics of successful

exporters identified in the literature using more conventional measures are also evident in larger firms and firms with wide market coverage.

For export facilitation organisations the study emphasises the need to assess the capabilities and needs of firms, without relying too heavily on current definitions of small and medium size firms. At a strategic level, by not relying on current definitions to identify capabilities and needs, the export facilitation organisations will be better able to target their resources. Similarly for policy makers in Scotland, the UK and the EU evidence in this study suggests the need to review definitions of small and medium size firms and use any revised definition in the development of future industrial policy.

For managers, this study has illustrated the characteristics of larger firms and firms that have a wide market coverage. Firm growth and market expansion are important long term objectives and managers of firms that have achieved these objectives are clearly committed to exporting, have allocated the necessary resources, and have adapted marketing strategies for individual markets. This pattern of activities and resource allocation is similar to that found in other studies of export performance using more conventional composite measures of performance, and emphasises the importance of these factors. On the other hand, the length of time a firm has been exporting seems to have little influence on the characteristics of the firm; clearly, even though a firm has been exporting for a long period, it will not necessarily have the characteristics of a successful exporter. Overall, the results should encourage non-exporters to enter foreign markets, and existing exporters to enter new markets with more products, earlier in the organisational development cycle than is currently fashionable.

## CONCLUSIONS

This study has investigated the nature of exporting firms in Scotland by asking, somewhat unconventionally, if the characteristics of successful exporters are evident in firms that are larger, have a wide market coverage and have been exporting longer. Such characteristics were evident amongst larger firms and firms exporting to a large number of markets. The management were more committed, had dedicated resources to exporting and adapted export marketing strategies in individual markets. Firms pursuing a market diversification strategy had also developed a strong market position. In these respects the evidence in this paper suggests that Scottish exporters do exhibit the characteristics of successful exporters identified more widely in the export performance literature. It was noted that there may be some interesting export markets and industry effects, but that data allowed no more than a brief exploration of these.

What constitutes a small or medium size firm is a key issue in this paper, as the level of employment where firms could be classified as medium size is 80 employees compared with the more widely adopted definition of 100. This may be explained by the increase in productivity per employee that has occurred in recent years. If this explanation is accurate there are important implications for policy-making bodies and export facilitation agencies in Scotland and the rest of the EU.

## References

- Aaby, N.E. & S.F. Slater. 1989. Managerial influences on export performance: a review of the empirical literature 1978-88. *International Marketing Review*, 6(4): 7-26.
- Axinn, C. 1988. Export performance: do managerial perceptions make a difference? *International Marketing Review*, 5(2): 61-71.
- Bodur, M. 1994. Foreign market indicators, structural resources and marketing strategies as determinants of export performance. In S.T. Cavusgil & C. Axinn, editors, *Advances in International Marketing*, 6: 183-205. Greenwich: JAI Press.
- Bolton, J.E. 1971. Report of the Committee of Enquiry on Small Firms. London: HMSO.
- Cavusgil, S.T. 1984. Differences among exporting firms based on their degree of internationalisation. *Journal of Business Research*, 12: 195-208.
- Cavusgil, S.T. & S. Zou. 1994. Marketing strategy-performance relationship: an investigation of the empirical link in export market ventures. *Journal of Marketing*, 58 (January): 1-21.
- Chetty, S.K. & R.T. Hamilton. 1993. Firm-level determinants of export performance: a meta-analysis. *International Marketing Review*, 10(3): 26-34.
- Cooper, R.G. & E.J. Kleinschmidt. 1985. The impact of export strategy on export sales performance. *Journal of International Business Studies*, 16 (Spring): 37-55.
- Culpan, R. 1989. Export behaviour of firms: relevance of firm size. *Journal of Business Research*, 18: 207-218.
- Czinkota, M.R. & M. Ursic. 1991. Classification of exporting firms according to sales and growth into a share matrix. *Journal of Business Research*, 22: 243-253.
- Da Rocha, A. & C.H. Christensen. 1994. The export experience of a developing country: a review of empirical studies of export behaviour and performance of Brazilian firms. In S.T. Cavusgil & C. Axinn, editors, *Advances in International Marketing*, 6: 111-142. Greenwich CT: JAI Press.
- Das, M. 1994. Successful and unsuccessful exporters from developing countries. *European Journal of Marketing*, 28(12): 19-33.
- Donthu, N. & S.H. Kim. 1993. Implications of firm controllable factors on export growth. *Journal of Global Marketing*, 7(1): 47-63.
- Dun & Bradstreet 2000. *Business Expectations Survey*, 7. London: Dun & Bradstreet.
- Dunne, P. & A. Hughes. 1989. Small business: an analysis of recent trends in the United Kingdom, with some European comparisons. *Working Paper no. 1*, SBRC, University of Cambridge.
- European Commission. 1996. Commission recommendation of 3 April 1996 concerning definition of small and medium-size enterprises. *Official Journal of the European Communities*, L 107: 4-7.
- Evangelista, F.U. 1994. Export performance and its determinants: some empirical evidence from Australian manufacturing firms. In S.T. Cavusgil & C. Axinn, editors, *Advances in International Marketing*, 6: 207-229. Greenwich: JAI Press.
- Holzmuller, H.H. & H. Kasper. 1991. On a theory of export performance: personal and organisational determinants of export trade activities observed in small and medium-sized firms. *Management International Review*, 31 (Special Issue): 45-70.

- Holzmuller, H.H. & B. Stottinger. 1996. Structural modelling of success factors in exporting: cross-validation and further development of an export performance model. *Journal of International Marketing*, 4(2): 29-55.
- Ito, K. & V. Pucik. 1993. R&D spending, domestic competition, and export performance of Japanese manufacturing firms. *Strategic Management Journal*, 14: 61-75.
- Johanson, J. & J.-E. Vahlne. 1977. The internationalization process of the firm - a model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(1): 23-32.
- Kaynak, E. & W.K. Kuan. 1993. Environment, strategy, structure and performance in the context of export activity: an empirical study of Taiwanese manufacturing firms. *Journal of Business Research*, 27: 33-49.
- Lee, C.S. & Y.S. Yang. 1990. Impact of export expansion strategy on export performance. *International Marketing Review*, 7(4): 41-51.
- Louter, P.J., C. Ouwerkerk & B.A. Bakker. 1991. An enquiry into successful exporting. *European Journal of Marketing*, 25(6): 7-23.
- Madsen, T.K. 1989. Successful export marketing management: some empirical evidence. *International Marketing Review*, 6(44): 41-57.
- Madsen, T.K. 1998. Managerial judgement of export performance. *Journal of International Marketing*, 6(3): 82-93.
- Matthyssens, P. & P. Pauwels. 1996. Assessing export performance. In S.T. Cavusgil & C. Axinn, editors, *Advances in International Marketing*, 8: 85-114. Greenwich CT: JAI Press.
- Moini, A.H. 1995. An enquiry into successful exporting: an empirical investigation using a three-stage model. *Journal of Small Business Management*, (July): 9-25.
- Naidu, G.M. & V.K. Prasad. 1994. Predictors of export strategy and performance of small and medium-sized firms. *Journal of Business Research*, 31: 107-115.
- Nakos, G., K.D. Brouthers & L.E. Brouthers. 1998. The impact of firm and managerial characteristics on small and medium-sized Greek firms' export performance. *Journal of Global Marketing*, 11(4): 23-47.
- Peat, J. & S. Boyle. 1999. *An Illustrated Guide to the Scottish Economy*. London: Duckworth.
- Piercy, N. 1982. *Export Strategy: Markets and Competition*. London: George Allen and Unwin.
- Reid, S.D. 1985. Exporting: does sales volume make a difference? –comment. *Journal of International Business Studies*, 16 (Summer): 153-161.
- SCDI. 1998. *Survey of Scottish manufacturing and Exports 1997-98*. Glasgow: Scottish Council Development and Industry: 24.
- Storey, D.J. 1994. *Understanding the Small Business Sector*. London: Routledge.
- Tesar, G. & J.S. Tarleton. 1982. Comparison of Wisconsin and Virginia small and medium-sized exporters: aggressive and passive exporters. In M. Czinkota & G. Tesar, editors, *Export Management: an International Context*. New York: Praeger: 85-112.
- Walters, P.G.P. & S. Samiee. 1990. A model for assessing performance in small US exporting firms. *Entrepreneurship Theory and Practice*, (Winter): 33-50.
- Zou, S. & S. Stan. 1998. The determinants of export performance: a review of the empirical literature between 1987 and 1997. *International Marketing Review*, 15(5): 333-356.