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**Abstract**

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# EXPORT EXPANSION AND THE CHOICE OF EXPORT MODE – IS THERE EVIDENCE OF SWITCHING OVER TIME? [1]

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ABSTRACT. Stage theory argues that firms expand exports incrementally and, in the process, pass through a series of increasingly more resource intensive export channels. This paper tests this hypothesis for NSW regional exporters in the period 1996/97 to2000/01. Consistent with other studies, we found general support for incremental export expansion, and that firms added more sophisticated export modes as commitment increased. However, they did not discard earlier modes in this process. One major contradiction to stage theory lay with 'born global' firms, which move immediately to high export ratios. A second more unexpected one lay with long term, intensive exporters, which persisted in using simple modes such as direct exporting.

## 1. INTRODUCTION

Stage theory analysis originated in the mid 1970s as an explanation of firms' international behaviour, indicating that they progressed through different export stages as their commitment to exporting increased[2]. The central tenant of the stage theory approach is that firms expand their export activities incrementally by moving through a series of export channels or modes as their experience and knowledge of exporting increases over time. In the process, they commit more resources to exporting, moving from simple modes such as direct exporting or agency representatives to various forms of overseas market presence through to foreign investment (Johanson and Vahlne, 1999). In an important development, networking activities were added to the original direct exporting – agency representatives – foreign investment pattern (Johanson and Mattson, 1988). It has been used to explain exporting processes in small and medium firms, particularly in Italy and Australia/New Zealand. Serious challengers to the staged expansion hypothesis have been mounted. The 'strategic exporter' critique in particular argues that exporters will select from a range of options in determining their export channels, choosing the one which suits particular market needs at a particular point in time, rather than operating on a pre-determined expansion path.

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[1] This paper was presented to the Australian and New Zealand Regional Science Association (ANZRSAI) Conference, Wollongong NSW, Sept-Oct 2004.

[2] The essentials of stage theory are well known. The main seminal articles can be found in P.J. Buckley and P.N. Ghauri (eds), The Internationalization of the Firm: A Reader, International Thomson Business Press, 2ndEdition, London, 1999. For reviews see for example, Kamath, et al. (1987), Andersen (1993 and 1997), Coviello and McAuley (1999).

The stage theory approach has been subjected to a series of empirical tests, as detailed below, with mixed results. These studies generally show that, while real world exporters rarely follow a strong stage theory-type progression in their export expansion paths, there is enough evidence of a progressive change in their export activities over time in line with experience to prevent us from completely rejecting this approach. One story which frequently emerges from these empirical studies is that while a broad set of stages involving progression through increasingly more committed export modes can be detected, firms often retain their pre-existing modes in their earlier markets and will continue to use these simpler export channels to enter new markets. In this paper, the behaviour of regional exporters in NSW is analysed to determine whether there is evidence of firms changing their export modes as predicted by stage theory as their experience with exporting increases. Two versions of stage theory are tested. Firstly, a weaker version is tested using a model developed by Gankema, et al. (1999) to see if our exporters increase their commitment to exporting over time in an incremental manner. Secondly, a stronger version requiring that they also change export modes as commitment increases is tested using a unique measure of organisational intensity. The results add to the literature on stage theory in international business studies, indicating that stage theory provides some explanation of NSW regional exporter behaviour, but that it is far from the complete story.

## 2. EMPIRICAL STUDIES WITHIN A STAGE THEORY FRAMEWORK

Stage theory analysis has progressed by adapting to the results from empirical studies. It is thus useful to review some of these recent studies before proceeding to our results. Empirical studies test whether the relationship between export experience and commitment to exporting increases over time. These studies can be characterised as falling into two groups. The first test a weaker form of stage theory where firms display a consistent, incremental strengthening of their commitment to exports over time, often measured through their export intensity ratios[3]. A second, stronger, test of stage theory requires that firms also change their export mode or channel as experience and export intensity increases. Many studies also include a number of determinant factors such as firm structure (industry, size, age, ownership status), time exporting, R&D expenditure ratio, or managerial factors including whether a separate export manager/unit exists, manager personal skills or business strategies as proxy measures of resource commitments to exporting (Bilkey and Tesar, 1977; Cavusgil, 1999; Beamish, et al., 1999; Eriksson, et al., 2000).

Empirical studies testing the first, weaker version usually find a general but inconsistent relationship between increasing export experience (and some resource measures) and export commitment, with evidence of an incremental increase in export intensity over time

[3] Other measures of export commitment include percentage of profits coming from exports, number and nature of export markets.

(Cavusgil, 1999; Dalli, 1994; Boter and Holmquist, 1999; Gankema, Snuif and Van Dijken; 1999). However, tests of the stronger form of stage theory, which argues that firms change their mode of export as export intensity increases, produce both supportive and contradictory results. While a general expansion in the number and type of export modes is found, export-orientated firms also continue to heavily use the simpler export modes, such that no statistical differences in use of export structures occurs as export dependence increases (Reid, 1987; Turnbull, 1987). Reid and Rosson (1987) have used these results to argue that exporters do not follow a staged expansion in exporting, but select from a menu of export modes the one that provides strategically the best entry mode for each particular market.

Some insight into the behaviour lying behind firms' choice of modes is given by Delios and Henisz (2003), using transaction cost analysis. They argue that a firm's choice of mode is affected by the degree of policy uncertainty in the proposed export market. With low uncertainty, Japanese firms would use distribution followed by FDI as expected by stage theory. However, in countries with high levels of policy uncertainty, they would directly enter via a joint venture manufacturing plant when they needed to access host country knowledge. Thus if a firm is exporting to a number of markets with different policy environments, they will simultaneously be using a variety of export channels to meet specific market needs, without this finding necessarily disproving stage theory.

Recent analyses have focused on the market entry modes used by particular types of firms. 'Born global' firms, where small firms commence exporting almost immediately on start-up, have become a feature of the new internationally competitive markets. Such firms appear to make a choice between direct exporting and agency representation depending on the customer support needs of their clients. Concepts such as 'after sales and client service', networking and customization of products become important determinant variables for these firms, while experience is less relevant. It suggests that new types of export processes may be found in high technology, new start-up firms (Burgel and Murray, 2000; Chetty and Holm, 2000; Chetty and Campbell-Hunt, 2003).

There has also been considerable research on the export strategies used by small and medium-sized firms (SME), with a particular focus on the behaviour of Italian SMEs. Again the results are mixed, with general support for the weak version of stage theory with export intensity, years exporting, number of export markets and number of export channels used tending to increase together. However, no consistent pattern of incremental changes in export channel usage was identified (Reid, 1987; Dalli, 1994; Wolff and Pett, 2000). These studies highlight the degree of variability found in the structures and behaviours of smaller firms. Boter and Holmquist (1999, p.180) identify a number of resource variables that may affect SME exports: industry, region, size, ownership, legal status, type of production, corporate strategy, export orientation, degree of cooperation. While increasing company size correlates with the export intensity ratio, as expected from the weaker version of stage theory, other structural variables were generally less significant. Gankema, et al., (1999, pp.191-2) provide a clearer analysis of SME behaviour within a stage theory framework using Cavusgil's stages based on export intensity ratios. Again, the weaker version of stage theory was supported

with firms incrementally progressing through these stages as predicted, particularly when a two year time period issued.

There has thus been a steady stream of empirical studies of export market entry and expansion using versions of stage theory since it was first proposed in the 1970s. Most find that firms' export performance increases incrementally inline with experience and other variables. However, the evidence of a progression through export modes is inconclusive. Most studies identify that firms use a diverse range of export channels and continue to use the simpler modes, even after long periods of export experience. Explanations of this diversity vary from direct challenges to stage theory by strategic choice theorists to others which complement stage theory but emphasise the importance of the environment in which the firms function, either in terms of host country policies or requirements of its product market. In this paper, we continue in the latter approach.

Our study is based on a survey of 146 value-adding exporters located in non-metropolitan New South Wales (NSW), Australia. All but eight of these firms were SMEs (less than 200 employees). The majority of firms operated in traditional manufacturing sectors. It covered well over 90 percent of the target population of value-added (non primary producer) exporters in seven rural regions, and collected a wealth of details on their corporate and exporting strategies[4]. However, a high degree of variability was found in the results for most variables. This variability can be taken as a genuine feature of this population and not due to sampling error due to the high level of population coverage obtained. In order to facilitate analysis, we have adopted the approach suggested by Cavusgil (1999:212) and have classified our firms into meaningful groups (see below) and compared average responses. Because of this high variability, in many cases the median rather than the mean has been used to provide a clearer picture (Mirer, 1995, p.44).

## 3. STAGES THEORY INDICATORS

Initially, we test the data to observe whether there is an incremental progression in our firms' commitment to exporting using similar methods to those employed by other empirical studies. This followed by a test of the stronger version, using an organisational intensity measure developed for this purpose and explained below.

### *3.1Tests of Incremental Progression in Commitment to Exporting*

To test whether the weaker version of stage theory holds for our data, we would expect to observe an incremental increase in export intensity. The determinants used in this analysis are years of export, and resources (here measured as size of firm in terms of employment). Similarly, we could expect that the number of countries exported to would increase in line with years of export experience and resources (size). The results of testing these propositions

[4] The seven regions were Wingecarribee, Shoalhaven, Murrumbidgee, Hunter, Northern, Central West and Far North Coast. Full results are available in the project report: Hodgkinson and Iredale (2003).

using chi-square tests of significant difference and correlation tests are shown in the Tables A.1 to A.6 in Appendix A. Cavusgil's (1999) analysis postulates five stages in the international process: domestic marketing (zero exports); pre-export (zero exports); experimental involvement (1-9 percent export intensity ratio); active involvement (10-39 percent export intensity ratio) and committed involvement (40 percent plus export intensity ratio). Similar categories are used in the following analysis. However, the zero (domestic marketing and pre-exporters) group are excluded, leaving 139 firms in the study. Further, the committed group is divided into two: 40 – 59 percent to reflect those relatively evenly divided between exports and domestic sales; and 60 percent plus reflecting the increased interest in exports since Cavusgil's paper was originally written in 1984.

As found in other studies, there is general, but not consistent, support for the proposition that an incremental commitment to exports (here measured as export intensity ratios) can be observed. There are significant correlations between increasing export intensity and years of export experience (Table A.1), and number of export markets (Table A.6). However, export intensity is not correlated with size of firm, a result commonly found in other studies (Bonaccorsi, 1992). Of the three variables used here, years of export experience shows the most consistent evidence of incremental increase. It is significantly correlated with increasing export intensity (Table A.1), firm size (Table A.5) and number of export markets (Table A.3).

A systematic method of testing whether firms moved through these stages was developed by Gankema, et al. (1999). Our database allows us to undertaken a similar analysis for the five years 1996/97 to 2000/01, although in this case no strict time frame to progress through these stages was applied. Firms were deemed to correspond to this framework if they progressed one stage at a time during this period, or where continually in the top category over these five years. Firms which did not export (pre-exporters) were excluded. Over-progression involved firms which skipped one stage in their export development path. Stagnation involved firms which had some exports but did not change stages over the five years. Hyper-progression involved firms which skipped two or more stages in the five year period.

These were predominantly 'born global' firms which went from zero export to over 40 per cent export intensity in onestep. Reversal involved firms which moved backwards through the stages at least once in the five years, either by stopping exports or reducing their export intensity ratio over time. The results are shown in Table 1.These results show that around 50 percent of our firms undertook an incremental expansion of their exports, consistent with Stage Theory. The main alternative path was stagnation, where firms remained in the same export intensity stage throughout the five years. Some evidence of leapfrogging was found. However, when the born global firms are excluded this becomes relatively small. The results are thus generally consistent with that expected from stage theory, but signal that the recent phenomenon of firms almost immediately beginning high levels of exports upon establishment presents a challenge to the older formulations of this approach.

Table 1. Incremental Progression by NSW Regional Exporters

| *Progression* | *All Exporters % of firms (139)* | *Excluding Born Global% of firms (117)* |
|---|---|---|
| As predicted | 46.8 | 53.8 |
| Over progression | 11.5 | 8.5 |
| Stagnation | 20.9 | 23.9 |
| Hyper progression | 12.2 | 5.0 |
| Reversal | 8.6 | 8.4 |

*3.2 Tests of Incremental Progression and Change of Export Modes*

To test the stronger version of stage theory, it would be expected that the number of export channels would increase with export experience, and that firms would move through a series of export channels from simple direct exporting to use of agency representatives to direct foreign investment. As shown in Appendix A, Tables A.7 and A.8, the number of export channels increased with years of experience and particularly with increasing export intensity. The results support the first proposition that firms will use a greater diversity of export channels as export commitment increases. They thus add new modes as they become more involved in exporting.

The types of channels used by our firms are shown in Tables 2 and 3 below. Consistent with more recent developments of stage theory, a number of intermediate modes are included: internet or e-commerce sales (an IT variant of direct exporting), export partnerships or collaborations as and indicator of networking, and introduction of equity capital (where an outside partner takes a non-controlling interest in the firm), as an investment-related variant of networking.

These results also offer support for stage theory. The strongest results occur for 'years exporting'. The pattern of use of direct exporting – agency representatives –foreign direct investment (FDI) with years exporting (Table 2) generally shows an increased use of agency relationships with export experience and an increased use of FDI in the most experienced groups. However, anomalies abound, particularly in the continued high use of direct exporting regardless of experience, and the relatively high FDI in the least experienced groups. The pattern for partnerships and collaborations shows a relatively high use among new exporters, which is consistent with its use by new exporters commencing operations in global markets, where networking strategies are most appropriate.

The data on type of channel by export intensity (Table 3) shows a similar pattern. Agency use increases with export intensity until the highest 60 percent plus category. Here agency use falls but FDI increases, as would be predicted by stage theory. The use of partnerships and

collaborations also generally increases with export intensity. The 40 to 59 percent export intensity group provides the clearest stage theory pattern, showing a shift from direct exporting to agency, internet and collaborations, relative to the previous group. However, the 60percent plus category reverses this pattern with higher use of direct exporting, although there is lower agency use offset by higher equity and FDI. This group's use of direct exporting is inconsistent with stage theory, although their increased use of investment strategies is consistent with standard stage theory predictions.

Table 2. Type of Channel by Years of Exporting Experience

| ***Channel ( percent of firms using)*** | | | | | | |
|---|---|---|---|---|---|---|
| Years Exporting | Direct Exporting | Agency** | Internet E-comm. | Partnerships Collaborations | Equity Capital | For. Direct Investment |
| One or less | 55.6 | 38.9 | 16.7 | 44.4 | 5.6 | 5.6 |
| 2 to 4 | 54.3 | 52.2 | 15.2 | 41.3 | 0.0 | 4.3 |
| 5 to 7 | 61.8 | 61.8 | 8.8 | 38.2 | 5.9 | 2.9 |
| 8 to 11 | 60.0 | 45.0 | 15.0 | 45.0 | 15.0 | 5.0 |
| 12 plus | 64.0 | 80.0 | 20.0 | 36.0 | 4.0 | 8.0 |
| **TOTAL** | **58.7** | **56.6** | **14.0** | **40.6** | **4.9** | **4.9** |

** Chi-square significant at 5 percent level.

Table 3. Type of Channel by Export Intensity

| ***Channel ( percent of firms using)*** | | | | | | |
|---|---|---|---|---|---|---|
| Years Exporting | Direct Exporting | Agency | Internet E-comm. | Partnerships Collaborations* | Equity Capital* | For. Direct Investment |
| 1 to 9% | 48.4 | 51.6 | 12.9 | 32.3 | 0.0 | 3.2 |
| 10 to 39% | 68.9 | 51.1 | 8.9 | 37.8 | 2.2 | 4.4 |
| 40 to 59% | 40.0 | 73.3 | 26.7 | 53.3 | 6.7 | 0.0 |
| 60% plus | 62.2 | 62.2 | 15.6 | 46.7 | 11.1 | 8.9 |
| **TOTAL** | **58.7** | **56.6** | **14.0** | **40.6** | **4.9** | **4.9** |

* while chi-square was not significant, significant correlations existed for these variables.

The data on type of channel by export intensity (Table 3) shows a similar pattern. Agency use increases with export intensity until the highest 60 percent plus category. Here agency use falls but FDI increases, as would be predicted by stage theory. The use of partnerships and collaborations also generally increases with export intensity. The 40 to 59 percent export intensity group provides the clearest stage theory pattern, showing a shift from direct exporting to agency, internet and collaborations, relative to the previous group. However, the 60percent plus category reverses this pattern with higher use of direct exporting, although there is lower agency use offset by higher equity and FDI. This group's use of direct exporting is inconsistent with stage theory, although their increased use of investment strategies is consistent with standard stage theory predictions.

A more analytical investigation of the relationship between export intensity, export experience, resources (size) and use of export channels can be made by developing an index of organisational intensity. This involves assigning an arbitrary weight to each export mode to reflect increasing sophistication shown in Table A.9, and dividing this by the number of different export channels used. The results from this calculation are shown in Table 4.

Table 4. Number of Organisational Forms and Organisational Intensity Index by Export Intensity, Years of Export Experience and Size.

| | *Average Organisational Weight* | *Average Number of Organisational modes used* | *Average Organisational Intensity* |
|---|---|---|---|
| ***Export Intensity*** | | | |
| 1% to 9% | 4.61 | 1.61 | 2.76 |
| 10% to 39% | 5.13 | 1.91 | 2.60 |
| 40% to 59% | 6.67 | 2.27 | 2.89 |
| 60% plus | 7.27 | 2.31 | 3.11 |
| ***Years Exporting*** | | | |
| One or less | 5.57 | 1.86 | 2.78 |
| Two to four | 5.02 | 1.82 | 2.63 |
| Five to seven | 5.76 | 2.03 | 2.57 |
| Eight to Eleven | 6.58 | 2.11 | 3.03 |
| Twelve plus | 6.88 | 2.32 | 2.78 |
| ***Size*** | | | |
| 1 – 9 employees | 5.30 | 1.91 | 2.71 |
| 10 – 19 employees | 5.78 | 1.96 | 2.93 |
| 20 – 49 employees | 4.60 | 1.73 | 2.42 |
| 50 – 99 employees | 7.50 | 2.42 | 2.57 |
| 100 – 199 employees | 8.85 | 2.54 | 3.12 |
| 200 plus employees | 7.25 | 2.38 | 2.83 |

These results are again generally consistent with that predicted by stage theory, with some minor anomalies observed for each group. Average organisational weight, number of modes

and organisational intensity rises through the export intensity groups, except for the 10 to 39 percent group's measure of organisational intensity. This result indicates that firms move to more sophisticated (higher weight) export channels as their commitment to exporting increases. However, as was shown in Table 3 above, this does not necessarily mean that they drop the earlier modes in the process. The patterns revealed for years exporting and size are also consistent with those predicted by stage theory, although they have more inconsistencies than does the pattern for export intensity. These results are most consistent with stage theory for firms with five or more years exporting experience and those with 20 to 199 employees (medium-sized firms).

### *3.3 Appropriateness of Stage Theory Explanations.*

Thus, as has been found in many other empirical studies, the most common patterns of international expansion found among NSW regional exporters were consistent with those predicted by stage theory. Export intensity was shown to increase incrementally and was strongly correlated with years of export experience. Further, using the Gankema, et al. (1999) framework, 50 per cent of firms progressed as predicted. This analysis particularly highlighted the importance of the recent phenomenon of 'born global' exporters, whose strong and immediate commitment to high levels of exports is contrary to the expected 'staged' approach.

The tests of the stronger version of stage theory also provide general support for the proposition that firms move to more sophisticated export channels as their commitment and experience in exporting increases. However, most firms continue to utilize their earlier and simpler modes, adding new ones rather than switching modes as predicted by stage theory. This phenomenon has also been found in other studies (for example, Reid, 1987; Dalli, 1994). This finding has been used by critics of stage theory to argue the alternative explanation that firms make strategic choices on export mode to fit the particular requirements of each export market.

## 4. CONCLUSION

Stage theory has evolved and been tested through empirical studies of exporter behaviour. From these works, two versions can be detected. The weaker version tests for evidence of incremental commitment to exports as a firm's experience in international markets increases. Empirical studies generally find support for this proposition. However, tests of a stronger version of stage theory that firms change their export mode as commitment and experience to exports increases produce mixed results. Firms are generally found to add more sophisticated modes over time but simultaneously continue to use their simple modes. Consequently, committed exporters are found to use a diverse range of export modes. We tested our database of 146 exporters in regional New South Wales, Australia using both versions of stage theory. As did other studies, we found general support for the weaker, incremental progression hypothesis. We also found that firms added new, more sophisticated modes as

their commitment to exporting increased, but did not discard their earlier modes in the process.

Researchers have thus turned their attention to explaining why this diversity of modes prevails. Explanations have included the different policy environments found in different countries towards foreign investment and exports, new modes being developed appropriate to global market conditions and the rise of the new phenomenon of 'born global' firms with immediate, high levels of exports, and the increasing numbers of small and medium sized firms involved in exporting, which do not have the resources to undertake overseas investments even with high export ratios. Thus a range of other factors are seen to overlay the expected progression through modes predicted by stage theory. '

From our study, one major anomaly occurs in the behaviour of 'born global' firms, which represented 16 percent of our study. These firms moved almost immediately to the 40 percent or more export intensity stage, yet retained the export modes expected of firms with relatively few years of export experience. A second anomaly arose in the group of firms with export intensities of 60percent and over. While these firms used investment related strategies more frequently than the other groups as expected by stage theory, their continued high use of direct exporting requires explanation.

It is also noted that relatively new exporters had a somewhat higher use of 'networking' modes such as partnerships and collaborations, introduction of non-controlling equity capital and foreign investment in the form of joint ventures. These modes tend to be associated with global market environments, which are the dominant type of market competition when such firms are established. This raises a further hypothesis that firms choice of export mode may be determined by prevailing market conditions at the time when they are established and/or begin exporting. Thus new exporters would have a preference for networking modes. However, older exporters might continue to utilize those modes prevalent in the era when they were established, such as direct exporting (extending to internet sales) and agency arrangements. This argument that there may be an 'historical' overlay on choice of export mode requires further study.

Thus the results from this study are consistent with other empirical studies using the stage theory framework. It provides a good explanation of choice of export mode for a majority of our exporters. However, we found as elsewhere, that a range of other factors overlay this decision, relating particularly to born global and experienced exporters. These appear to be related to the market conditions prevailing when the firms were established, indicating that historical factors may also be influencing the choice of export mode.

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## APPENDIX. ADDITIONAL TABLES OF RESULTS.

**Table A.1.** Export Intensity by Years of Export Experience

| *Years exporting* | *No.* | *Export Intensity* | | | |
|---|---|---|---|---|---|
| | | Mean | Median | St. Dev. | S.E.Mean |
| One or less | 17 | 34.93 | 15.00 | 37.69 | 9.14 |
| Two or four | 46 | 27.28 | 11.39 | 30.80 | 4.54 |
| Five to seven | 34 | 40.09 | 36.00 | 33.68 | 5.78 |
| Eight to eleven | 20 | 30.55 | 34.50 | 30.80 | 6.87 |
| Twelve plus | 25 | 55.10 | 61.00 | 34.70 | 6.94 |

**Notes:** Chi-square = 23.38(.104 sign.), Pearson's R = .248(.003 sign.), Spearman Correlation =.241(.004 sign.)

**Table A.2.** Export Intensity by Employment Size

| *Size* | *No.* | *Export Intensity* | | | |
|---|---|---|---|---|---|
| | | Mean | Median | St. Dev. | S.E.Mean |
| 1 – 9 employees | 50 | 42.39 | 31.65 | 37.01 | 5.23 |
| 10 – 19 employ. | 28 | 42.75 | 27.89 | 36.61 | 6.92 |
| 20 – 49 " | 31 | 33.68 | 28.57 | 29.69 | 5.33 |
| 50 – 99 " | 13 | 33.64 | 30.00 | 25.71 | 7.13 |
| 100 – 199 | 13 | 24.21 | 10.00 | 29.07 | 8.06 |
| 200 plus | 8 | 48.47 | 46.50 | 43.20 | 15.27 |

**Notes:** Chi-square = 21.65(.360 sign.), Pearson's R = -.375(.375 sign.), Spearman Correlation=-.088(.275sign.)

**Table A.3.** Number of Countries Exported To 2001 by Years of Export Experience

| *Years exporting* | *No.* | *Countries 2001* | | | |
|---|---|---|---|---|---|
| | | Mean | Median | St. Dev. | S.E.Mean |
| One or less | 17 | 2.35 | 2.00 | 1.54 | 0.37 |
| Two or four | 36 | 3.39 | 3.00 | 2.09 | 0.35 |
| Five to seven | 27 | 10.33 | 5.00 | 22.2 | 4.27 |
| Eight to eleven | 13 | 4.46 | 4.00 | 2.07 | 0.57 |
| Twelve plus | 21 | 12.43 | 6.00 | 25.59 | 5.59 |

**Notes:** Chi-square = 69.11(.112 sign.), Pearson's R = .203(.031 sign.) Spearman's Correlation=.473(.000 sign.)

**Table A.4.** Number of Countries Exported To 2001 by Size

| *Size* | *No.* | *Countries 2001* | | | |
|---|---|---|---|---|---|
| | | Mean | Median | St. Dev. | S.E.Mean |
| 1 – 9 employees | 41 | 7.37 | 4.00 | 18.81 | 2.94 |
| 10 – 19 employ. | 24 | 4.13 | 3.00 | 2.85 | 0.58 |
| 20 – 49 " | 22 | 4.45 | 4.00 | 3.38 | 0.72 |
| 50 – 99 " | 14 | 5.00 | 4.00 | 3.64 | 0.97 |
| 100 – 199 | 7 | 5.43 | 6.00 | 2.82 | 1.07 |
| 200 plus | 6 | 25.50 | 7.50 | 46.32 | 18.91 |

**Notes**: Chi-square =82.46(.146 sign.), Pearson's R = .114(.229 sign.), Spearman's Correlation =.201(.032 sign.)

**Table A.5.** Firm Size (Employment) by Years Exporting

| *Category* | *No.* | *Years Exporting* | | | |
|---|---|---|---|---|---|
| | | Mean | Median | St. Dev. | S.E.Mean |
| 1 – 9 employees | 50 | 6.34 | 4.00 | 6.44 | 0.91 |
| 10 – 19 employ. | 28 | 5.66 | 4.50 | 4.52 | 0.85 |
| 20 – 49 " | 31 | 6.45 | 5.00 | 5.48 | 0.98 |
| 50 – 99 " | 14 | 5.71 | 5.50 | 4.38 | 1.17 |
| 100 – 199 | 12 | 9.58 | 8.00 | 5.71 | 1.65 |
| 200 plus | 8 | 17.50 | 13.00 | 16.62 | 5.88 |

**Notes**: Chi-square = 33.92(.027sogn.), Pearson's R = .269(.041 sign.) Spearman's Correlation =.211(.011 sign.)

**Table A.6.** Number of Countries Exported to 2001 by **Export** Intensity

| *Export Intensity(%)* | *No.* | *Number of Countries* | | | |
|---|---|---|---|---|---|
| | | Mean | Median | St. Dev. | S.E.Mean |
| 1 to 9 percent | 20 | 1.67 | 2.00 | 2.25 | 0.50 |
| 10 to 39 percent | 37 | 3.10 | 4.00 | 2.57 | 0.42 |
| 40 to 59 percent | 14 | 5.64 | 5.00 | 3.97 | 1.06 |
| 60 percent plus | 39 | 11.59 | 5.00 | 26.11 | 4.18 |

**Notes**: Chi-square =132.52(.000 sign.), Pearson's R = .220(.019 sign.) Spearman's Correlation =.325(.000 sign.)

**Table A.7.** Number of Export Channels by Years Exporting

| *Years exporting* | *No.* | *Number of Channels* | | | |
|---|---|---|---|---|---|
| | | Mean | Median | St. Dev. | S.E.Mean |
| One or less | 11 | 2.27 | 2.00 | 1.49 | 0.45 |
| Two or four | 33 | 1.70 | 1.00 | 0.95 | 0.17 |
| Five to seven | 23 | 2.04 | 2.00 | 1.11 | 0.23 |
| Eight to eleven | 18 | 2.22 | 2.00 | 1.26 | 0.30 |
| Twelve plus | 18 | 2.50 | 3.00 | 1.38 | 2.50 |

**Notes**: Chi-square = 31.32(.145 sign.), Pearson's R = .167(.092 sign.) Spearman's Correlation =.170(.087 sign.)

**Table A.8.** Number of Export Channels by Export Intensity

| *Export Intensity(%)* | *No.* | *Number of Channels* | | | |
|---|---|---|---|---|---|
| | | Mean | Median | St. Dev. | S.E.Mean |
| 1 to 9 percent | 23 | 1.65 | 1.00 | 0.93 | 0.19 |
| 10 to 39 percent | 30 | 2.00 | 2.00 | 1.31 | 0.24 |
| 40 to 59 percent | 11 | 2.18 | 2.00 | 1.17 | 0.35 |
| 60 percent plus | 35 | 2.43 | 2.00 | 1.17 | 0.20 |

**Notes**: Chi-square = 37.41(.040 sign.), Pearson's R = .279(.004 sign.) Spearman's Correlation =.304(.002 sign.)

**Table A.9.** Weighted Export Organisational Modes

| *Weight* | *Organisational Mode* | *Frequency of Use* | |
|---|---|---|---|
| | | Number | Percent |
| 1 | Direct exports | 85 | 58.6 |
| 2 | Internet / e-commerce | 20 | 13.8 |
| 3 | Agent / distributors | 81 | 55.9 |
| 4 | Partnership / alliance | 59 | 40.7 |
| 5 | Equity capital | 7 | 4.8 |
| 6 | Licensing | 11 | 9.7 |
| 7 | Joint Venture | 15 | 10.4 |
| 8 | Overseas subsidiary | 8 | 5.5 |
| 1 | Other | 6 | 4.1 |