

## BOOSTING THE BUSINESS BIRTH RATE IN SCOTLAND: EVIDENCE FROM THE LANARKSHIRE DEVELOPMENT AGENCY'S ENTREPRENEURSHIP PROGRAMME

Steve Talbot and Alan Reeves  
University of Paisley

### Introduction

The main objective of Scottish Enterprise's Business Birth Rate Strategy is to increase the number and range of entrepreneurs in Scotland. The strategy was put in place after the publication of two reports: Scotland's Business Birth Rate (Scottish Enterprise and Scottish Business Insider 1993) and Improving the Business Birth Rate: A Strategy for Scotland (Scottish Enterprise 1993) which showed that Scotland lagged behind the rest of the UK, especially the south east of England, in both the number and quality of business start-ups. In short, the report said Scotland did not produce enough indigenous companies with growth potential. Just as worrying was the apparent attitude towards entrepreneurship among Scots that is now such that it presents a real economic problem. There have been numerous UK-wide schemes in the 1980s designed to assist small firms and many other measures which, though not specifically targeted at small firms, had their major impact on small firms. In addition, there have been many specifically Scottish schemes but these have failed to raise the business birth rate sufficiently to bring Scotland into line with the rest of the UK. To a great extent this reflects the wholly piecemeal approach used by successive governments.

In his criticism of UK public policy towards small firms, Storey (1994) has noted that:

*'There has been no UK White Paper about the objectives and targets of public policy towards SMEs. Instead, policies have been introduced on a piecemeal basis, often in response to pressure from small firm lobby organisations and to changes in the macroeconomy'. (p.257).*

Storey adduces that as a consequence of the lack of clear policy statements, policy objectives can only be guessed at or inferred from observing the policies in action. He notes that the UK is not unusual in this stance as the same is true in many other European countries. One of the main proposals which comes out of Storey's extensive study of small businesses in the UK is that greater emphasis should be placed on selectivity and

targeting as the most cost-effective way of maximising the economic and employment impact of small firms. He recommends as targets firstly, fast growing firms between 3 and 7 years old that have been constrained in their growth and, secondly, high technology, science-based firms. The evidence shows, he claims, that these firms are the most successful in creating employment and in time will be instrumental in raising the quality of the small firm sector. Revealingly, Storey does *not* come out in favour of targeting new firms. The main reason given for this is that:

*'there is no accurate 'identikit picture' of a successful entrepreneur which can be constructed from information about that individual, or group of individuals, prior to them establishing in business' (p.285).*

This is because, in his view, attempts to generate new firms have resulted in wasted resources because of high business failure rates, low growth and 'dead-weight' (firms that would have started anyway), especially with such schemes as the Enterprise Allowance Scheme (EAS). However, a scheme to encourage entrepreneurship run by Lanarkshire Development Agency (LDA) has been remarkably successful in generating employment, much in science-based, high technology, fast growing companies - just the kinds of high quality companies that Storey is particularly keen to see encouraged - by adopting a policy of 'picking winners'. The LDA Entrepreneurship Programme has helped to create nearly 1400 jobs in 48 companies with a combined sales turnover of over £21 million between 1991 and 1995 by identifying potential entrepreneurs and giving them the necessary support. This is evidence that challenges the view that it is not possible to identify the potential high flyers. Indeed, so successful has the Entrepreneurship Programme been that it has been described by the DTI as a model scheme. The Programme has as its core the concept of the 'business venture team' where potential entrepreneurs selected according to strict criteria are encouraged to form a business team to start and manage a business. Assistance is provided by experienced professionals in the form of information, advice, finance, markets and

marketing, management, personnel, premises and so on. This help is given right from the first phase of team formation and idea formulation through the early years of the firms' operation. Many of these companies are now several years old and have grown with LDA's help into highly profitable companies.

This paper is the first attempt to highlight some of the key features of the Programme and to assess the performance of the participating firms. Evidence is presented on two key issues of current interest to academics and policy-makers in this area: (i) the performance of company spin-offs and (ii) the role and impact of venture teams in the entrepreneurship process. The performance of new business firms spinning off from other companies is compared with those emanating from other sources. There is a strong theme in the literature that company spin-offs perform better than non-spin-offs (Cooper 1991, Vesper 1980). The main finding from this study is that, though only in the very early stages of their development, spin-offs did perform better than non-spin-offs in terms of having higher employment, higher sales turnover and higher exports. A novel feature used here is the classification of spin-offs into three types: 'immediate', 'past' and 'both'. Immediate spin-offs are those emerging from the entrepreneur's immediate previous employment. Past spin-offs emerge from past, but not immediate previous employment and both are those emerging from immediate and past employment. This classification may be considered as a proxy for depth (though not necessarily range or length) of experience that for a number of reasons we might expect to be positively related to performance. Results suggest that greater experience, as typified by spin-offs classified in the both category, is positively related to spin-off performance.

Another theme currently in vogue among practitioners but on which there is little or no evidence in the literature is that of venture teams and their role in the entrepreneurship process both at the pre-start-up and post-start-up phases. The relative performance of venture teams compared with companies set up and run by sole entrepreneurs is equally under-researched, especially in the UK. The Entrepreneurship Programme provided an opportunity to compare these two groups. The main finding on this was that companies set up and run by venture teams are more likely to have larger employment, to have higher sales turnovers and to export a higher proportion of sales than non-venture team businesses.

## **The Place of Spin-offs and Venture Teams in New Firm Formation**

The role of new firms as the motor for transforming and restructuring local and regional economies has received a great deal of attention (Mason and Harrison, 1990). Typically, only four to five per cent of new firms are identified as having high growth potential (Storey and Johnson 1987). As Storey (1994) has pointed out, it can be argued that the correct emphasis should therefore be upon the types of selection policies and mechanisms used by economic development agencies in their search for such 'gems' and to encourage this small band which offers high growth potential rather than on a broad brush approach to supporting new firms. While it is recognised by agencies that the focus of selection should be on those seeking employment creation rather than self-employment when it comes to supporting new firms, it does become increasingly difficult to progress beyond this stage in practice. The survey results (discussed below) show that greater attention need be given to the role of spin-offs in the entrepreneurial process. Additionally, the benefits of spin-offs are realised fully when such firms are composed of teams rather than sole entrepreneurs.

New firm formation has a central role in the armoury of all governments as they seek to tackle cyclical and structural problems associated with mature industrial economies and particularly areas blighted by decline of industry such as Lanarkshire. A number of associated issues, such as skill acquisition, technology transfer and economic growth, can be addressed under the heading new firm formation. However, the task of using new firm formation as a panacea for economic ills is made troublesome by evidence suggesting that the economic impact of new and small firms varies widely (Keeble, Walker and Robson 1993). This variety is marked not only between countries, but also within and between regions of the same country (Keeble, Potter and Storey 1990). Only now is the focus of study moving on to look at the structural characteristics of regions to explain the dynamics underlying new firm formation (Keeble, Walker and Robson 1993). This change in emphasis rightly seeks to draw upon the local economic structures within which new firms must operate. It is with this in mind that this paper looks at spin-offs as the major source of new high-growth firms with real employment potential and which simultaneously addresses a number of the key issues identified above. Spin-off firms are very often repositories of knowledge previously held within an existing firm which, for one reason or another, was not exploited within the

structure of the existing firm. It is the inability of the existing firm to accommodate the new ideas/processes/developments which provides the fertile ground for spin-off and raises the question: how does the nature of local economic forces shape the spin-off environment? This touches on much wider issues regarding the nature of the firm such as scale economies, asset-specificity and the decision to produce or buy-in components, all of which may exert an influence the size and spatial distribution of firms (Lyons 1992).

The survey results reported later in the paper demonstrate the need to move consciously from the implicit paradigm of individualism as the basis for entrepreneurship, which is itself rooted in the neo-classical tradition, to one reflecting the stylised facts which are emerging from empirical research: that team ventures are more likely to be successful in starting and maintaining new high-growth businesses and that such teams are more common than previously thought. The important role played by venture teams in the success of new firms needs to be taken into account when designing and delivering support systems for new firms (Vyakarnam and Jacobs 1993). It is the contention of this paper that the spin-off route may be a fruitful route open to development agencies and others involved in local economic development, and that spin-offs involving venture teams are likely to be more successful still in terms of employment, sales turnover and growth, with the root of success for such firms being embedded in the local economy. Specifically, the industrial structure of a local economy will set the parameters for start-up; from the quality and nature of existing firms will flow the type of new firm created in the spin-off.

Under the banner of spin-offs can be found a number of features associated with successful new firms: team entrepreneurship, prior work experience and enhanced access to capital. The importance placed on the role of the 'team' in the start-up process is a recognition of the relative success of teams and the importance of using teams as leading indicators of future success (Harvey and Harrison 1992; Vyakarnam and Jacobs 1993). Similarly, prior work experience is also a useful leading indicator as this is one of the main influences on the success of a new firm, (Vesper 1980, Cooper 1981). Teams are also more likely to be able to bring and/or raise more capital than the idealised individual entrepreneur (Walker 1989). It is not the intention of this paper to re-examine this ground but instead to accept that these are the important variables and to use them in conjunction to support the contention that policy-makers and development agencies should focus their efforts on

the four or five per cent of firms that are growth firms and that these growth firms are more than likely to be the result of spin-off and that the more fruitful spin-off is one involving a team effort.

The spin-off route meets the challenge faced by policy-makers of finding or helping to establish the environment for the development of employment-creating new firms rather than for the creation of new firms *per se*. This will reduce the attrition rate associated with new firm formation as well as being more likely to have weaker displacement effects as these firms are likely to be in new or expanding markets. This is apparent from the survey results, companies emerging from The Entrepreneurship Programme having a very high level of additionality and very low level of displacement. This mutually-reinforcing combination is the motor for local economic growth and employment creation.

Identification of such firms may be an important element of any business assistance programme, as these programmes are vital in transforming those with business ideas or intentions into new businesses (White 1994, Katz 1990). It seems to be the case that spin-offs are more likely to introduce new products and processes (Robson and Gallagher 1993) and do this away from the confines of the previous employing firm.

The problem of identification of these growth firms has its root in the lack of any real theoretical framework, (Horn 1992); and it may be that the spin-off issue is one path towards developing the necessary theoretical framework to move the debate on from a largely descriptive treatment of the characteristics of new firm formation. Simply creating more new firms is not a sufficient condition to ensure economic regeneration, (Barkham et al 1993). Rather it is the creation of *successful* new small firms which is the challenge and where spin-offs and venture teams may have a significant role to play in engendering and fostering that success.

### **The LDA Entrepreneurship Programme**

The LDA Entrepreneurship Programme was developed to stimulate new firm formation in a depressed area of west central Scotland, that has suffered from the closure of steel works and the decline of traditional engineering industries. The Entrepreneurship Programme was set up in 1991 in conjunction with East Kilbride District Council and Strathclyde Integrated Development Operation. So far, seven cohorts have 'graduated' from the Programme and many of the participants have set up in business. The Programme has sought to

provide the environment associated with a properly-run 'incubator' set-up. Candidates are interviewed by LDA and only those with a business idea who are deemed to be seriously considering starting in business are taken onto the Programme. The Programme trains in all aspects of entrepreneurship, LDA provides initial premises (where necessary), provides funding or where necessary arranges a funding package with a variety of different funders. Most importantly, the Programme seeks also to provide a vehicle for participants to meet potential partners in order that the formation of venture teams is encouraged. This is viewed as an absolutely essential element of the Programme. The selection process, in terms both of participants and potential partners, though not the main focus of this paper, may be the most important feature of the Programme and is currently the subject of further investigation to identify the dynamics of successful partnership formation .

LDA's Lanarkshire Regeneration Strategy places prime importance on *the development of competitive companies in Lanarkshire*. New venture initiatives are an important part of this theme in the strategy and range from volume start-up programmes such as the Business Start Up Initiative to the top flight Entrepreneurship Programme, which targets high growth, high value added new starts. Specifically, the Entrepreneurship Programme aims to:

*"initiate new indigenous companies by identifying and selecting seriously interested and experienced people and assisting them through training, consultancy, provision of business opportunities and total support to the point where they can, with assistance from the appropriate agencies, take the first major step in launching their own ventures."* (Talbot and Reeves 1996)

This approach, where the emphasis is on the 'quality' of the new business rather than simply the number of new starts, reflects a growing response to the recent evidence on new firm formation in Scotland. Not only does Scotland produce fewer new firms, but the record of those firms in terms of turnover and turnover per employee is worse than the UK average. Scotland's new firms also grow more slowly than the UK average (indeed, at less than half the rate of new firms in the south east of England (Barkham et al 1993)).

Scotland's Business Birth Rate was one of four key reports that attempted to address some of the fundamental reasons for Scotland's relatively poor performance on business start-ups and the effect

this has on the economic growth of the country as a whole.

*"If Scotland had achieved an equivalent performance to that of the south east of England, for example, new firms would have employed 320,000 people, a shortfall of 195,000 jobs."* (Scottish Enterprise 1993)

This lack of new firm formation and its concomitant effect on employment is evident across all sectors; and while the differences are most apparent against the south east of England, this comparison highlights the scale of the problem facing policy-makers in similarly depressed areas.

Although there may be debate as to which is the more effective policy in terms creating the higher rate of job growth - new firms or fast-growing existing firms - it is clear that new firm formation has a central role to play in the health the local economy. The figure of 195,000 jobs is the deficit from the 'ideal' situation, but it might be expected that once allowances have been made for displacement and dead-weight this figure would be somewhat reduced.

The Programmes were delivered by a team of very experienced and highly respected practitioners in entrepreneurship training. Alongside the Entrepreneurship Programme was an extensive LDA back-up service that is able to fully integrate with the Programme. The Programme has acted as a catalyst for many LDA services and has encouraged new ventures by those who were not able to join as full-time participants but still had a viable business idea. Such companies were attracted by the Programme's high profile and were able to use many services without actually signing up for the Programme. To date, this "halo effect" has attracted four such ventures employing significant numbers with sales turnovers of hundreds of thousands of pounds.

## Methodology

Postal questionnaires were sent out to all known firms in operation and to non-traders. Out of a total of one hundred and fifty-four questionnaires, eighty were returned, giving a response rate of 52 per cent. Due to the close nature of LDA's involvement with the firms, it was possible to contact all of those who had actually started a business and thus, for the purposes of the research, all of the relevant population was surveyed. Subsequently, a small number of face-to-face interviews were conducted with those who stated on their questionnaire return that they would have started trading even without the aid of the

Entrepreneurship Programme. This was to gauge the extent of additionality for this group of firms. Additionality is the benefit conferred on firms by the Entrepreneurship Programme. This benefit can be measured using a number of indicators of firms' performance such as employment, output or value added. For example, in terms of employment, these are the jobs that the Entrepreneurship Programme had been *directly* responsible in creating. This should be contrasted with gross jobs, which will contain an element of dead-weight, or jobs that would have been created irrespective of the Programme's efforts. The overall net effect in terms of jobs would also have to take account of displacement - the possible loss of jobs in other firms as a result of this new competition - but this is very difficult to estimate.

## Results

A problem with undertaking a comparative analysis in the present context is the presence of one very large and highly successful company that is many times larger than any other company in terms of both employment and sales turnover. Dealing with this presents us with a particular problem especially when attempting to make comparisons. To exclude this company altogether would lead to an underestimation of the gross impact of the Programme on employment and sales turnover. Commercial confidentiality prevents disclosure of company-specific information or any means by which such information may be adduced. It is not possible show results 'with and without' the outlier where it would be possible for information about the outlier to be gleaned. For the most part, then, the results are shown inclusive of the outlier but where possible, the analysis is carried out with the outlier excluded. Another potential difficulty is the timing of the survey and the age of companies. In the sample, the ages of companies range from a few months up to four years according to when entrepreneurs went through the Programme and when they were subsequently able to start up. The older companies will generally be larger since they have had time to become firmly established in their markets. The problem arises if companies are not evenly distributed across the categories by age. If there are, say, more older and therefore larger companies in a particular category of spin-off this may give

Bearing in mind the earlier comments about the presence of an outlier, comparison of mean employment figures by type of spin-off supports the notion that spin-offs where the entrepreneur has both immediate and past experience do significantly better (at the 5% level) than other spin-off types and better than non-spin-offs (Table

the impression that age of company is the main influence of employment, rather than whether the company is a spin-off. Careful analysis of the data revealed that companies were in fact fairly evenly distributed by age across categories and thus we can eliminate this as a problem.

We turn now to the results of the survey. The focus is mainly on two performance indicators - employment and sales turnover. As far as the gross impact of the Entrepreneurship Programme is concerned, in total, as of 1995/6 the forty-eight traders employed 1371 people with a sales turnover of £21.2 million. These are projected to rise to 1586 jobs and £28.8 million in 1996/7. Being gross figures, they do not allow for non-additionality or displacement which we found in any case to be small, but since the main concerns here are with the comparative performance of a) spin-offs and non-spin-offs; and b) team ventures and sole entrepreneurs, this is not important. The following then is concerned with these two aspects and we begin with spin-off companies classified as 'immediate', 'past' and 'both' (the combination of immediate and past spin-offs). Tests of statistical significance (two tailed t-tests) were performed as necessary to test the differences between means. Where significant differences existed these are reported along with the relevant level of significance though for simplicity actual t-values are omitted.

Table 1 gives a breakdown by type of spin-off for the forty-eight trading companies. It is evident that most companies were started by entrepreneurs who had had experience in both their immediate previous job and in their past jobs in the same line of business. Only six companies were not spin-offs of any kind.

In terms of industrial activity, there was a fairly even split between manufacturing and services with business and financial services an important source of activity (Table 2). With respect to spin-offs, it was more likely that entrepreneurs had both immediate and past experience in business and financial services than in the other activities and more likely that they had just immediate experience in electrical and mechanical engineering.

3). A very similar picture emerges with sales turnover (Table 4). Table 5 shows turnover per employee and in the current year there is not a significant difference between types of spin-off, but spin-offs as a whole have significantly higher values (at the 10% level) than non-spin-offs though here sample size is very small (2). For the

following year, immediate spin-offs are projected to have higher turnover per employee but the difference is not significant. The question of market areas is addressed by examining exports in Table 6. Exports are defined as exports from the UK though in terms of the impact on the local economy it would be just as valid to consider exports from the immediate area. The figures show that spin-offs have significantly wider market areas (at the 5% level) than non-spin-offs though sample size is again small for non-spin-offs and that companies in the 'past' and 'both' categories are projected to increase considerably the percentage of sales exported in the next two years.

Turning to venture teams and relating them to spin-offs, Table 7 shows that thirty-four of the forty-eight companies were formed and run by teams. It was just as likely that non-spin-offs were teams as sole entrepreneurs but more likely that spin-offs were teams. Tables 8, 9 and 10 show that team ventures were likely to perform significantly better (at the 1% level) than sole entrepreneurs in terms of employment, sales turnover and turnover per employee for the current and next year. Several reasons for this have been suggested earlier but these differences are very marked and do indicate that team ventures outdo sole entrepreneurs to an extent not previously recognised.

### Summary and Conclusions

This paper has focused on two aspects of entrepreneurship of current interest to academics and policy-makers: the comparative performance of spin-offs and non-spin-offs and that of venture teams and sole entrepreneurs. Using a sample of forty-eight companies formed after graduating from the Lanarkshire Development Agency's Entrepreneurship Programme it was found that spin-offs tended to perform significantly better than non-spin-offs in terms of employment, sales turnover and exports. Also, venture teams did significantly better than sole entrepreneurs. Indeed, the contrast between the performance of venture teams and sole entrepreneurs is very striking. Using a three-way classification of spin-offs: 'immediate' (based on immediate previous employment), 'past' (based on past but not previous employment) and 'both' (based on immediate previous employment and past employment) reflecting depth of experience of the entrepreneur(s), the expectation that more depth would lead to better performance was only partially realised. An improved proxy might take into account length and breadth as well as depth of experience. Other performance indicators such as value added and growth would also give a fuller picture.

As far as the lessons for development agencies are concerned there are some fairly clear implications of this research. The Entrepreneurship Programme set out without the benefit of a great deal of received wisdom to encourage the establishment of venture teams that would then go on to form and run businesses. This objective has been achieved in that, on balance, firms have been very successful in their early stages. Of course, the long-term prospects for these companies are uncertain and continual monitoring over several years is necessary before we know whether such firms are successful in the longer term. Research into what actually makes a good team and why some teams do not do as well as some others is needed to be able to know how to put a winning team together and to understand the importance of team dynamics to the success of the firm. Nevertheless, if the results of this survey are anything to go by and notwithstanding that the Programme is still in its very early stages, venture teams may represent a promising route for successful new firm formation. Spin-offs are also an area which previous writers have suggested merits attention as a means of generating growth companies. The results of this study confirm this view and suggest that spin-offs, and especially those set up by venture teams may be a very fruitful area for exploitation by development agencies seeking to improve the rate and success of new firm formation. Storey's (1994) view expressed earlier that development agencies should pay particular attention to the selection policies and mechanisms used to search for such gems and to identify firms with high growth potential is one that is supported by the success of the Entrepreneurship Programme.

Encouragingly, these results suggest that the bleak picture painted of Scotland lacking entrepreneurial drive may not be altogether as accurate as some would have us believe. With a high start-up rate (50 companies started from 154 Programme participants), a remarkably high survival rate of 96% (48 out of 50 companies that started are still trading), a highly successful record in generating employment (1371 people employed), and high and growing exports, the Programme has been successful in tapping only a tiny proportion of the 700,000 people in Scotland who claim to have entrepreneurial ambitions (a figure quoted in Scottish Enterprise's Annual Report 1995/6 p.19). Contrast this with Storey and Johnson's (1987) finding that only four to five per cent of firms have growth potential and it is clearly a measure of the success of the Programme. The refocusing of start-up resources to schemes such as the Entrepreneurship Programme may be the way to unlock the entrepreneurial potential that will yield new, high growth companies. As a result of recent

research on the entrepreneurial profile of Programme participants who were successful in starting up companies (Talbot and Reeves 1996), the Programme is continuing by targeting graduate engineers, scientists and technologists from

Scotland's universities in the belief that this will be the source of many new future growth companies. In this way, resources are being used to make a small but effective contribution to improving Scotland's indigenous industrial base.

**Table 1: Spin-offs by Type**

| TYPE OF SPIN-OFF | NUMBER    |
|------------------|-----------|
| Immediate        | 9         |
| Past             | 10        |
| Both             | 23        |
| Not a spin-off   | 6         |
| <b>Total</b>     | <b>48</b> |

**Table 2: Spin-offs by Industry**

| TYPE OF SPIN-OFF | ELECTRIC & MECHANICAL ENG | OTHER MANUF. | RETAIL   | BUS & FIN SERVS | CONSTR   | TOTAL     |
|------------------|---------------------------|--------------|----------|-----------------|----------|-----------|
| IMMEDIATE        | 4                         | 2            | 1        | 2               | -        | 9         |
| PAST             | 1                         | 3            | 1        | 5               | -        | 10        |
| BOTH             | 3                         | 6            | 1        | 12              | 1        | 23        |
| NOT A SPIN-OFF   | 1                         | 1            | -        | 3               | 1        | 6         |
| <b>TOTAL</b>     | <b>9</b>                  | <b>12</b>    | <b>3</b> | <b>22</b>       | <b>2</b> | <b>48</b> |

**Table 3: Mean Employment in the Current and Next Year**

| TYPE OF SPIN-OFF | 1995/6 | (n)  | 1996/7* | (n)  |
|------------------|--------|------|---------|------|
| Immediate        | 6.3    | (8)  | 10.5    | (8)  |
| Past             | 18.8   | (5)  | 15.1    | (7)  |
| Both             | 65.3   | (18) | 66.1    | (19) |
| Not a spin-off   | 13.0   | (4)  | 31.5    | (4)  |

**Table 4: Mean Turnover in the Current and Next Year (£ '000)**

| TYPE OF SPIN-OFF | 1995/6       | (n)         | 1996/7*      | (n)         |
|------------------|--------------|-------------|--------------|-------------|
| Immediate        | 468.1        | (8)         | 823.2        | (8)         |
| Past             | 127.1        | (6)         | 209.6        | (6)         |
| Both             | 1212.2       | (17)        | 1442.9       | (14)        |
| Not a spin-off   | 123.0        | (4)         | 260.0        | (3)         |
| <b>TOTAL</b>     | <b>731.7</b> | <b>(35)</b> | <b>929.8</b> | <b>(31)</b> |

**Table 5: Turnover per Employee (£'000)**

| TYPE OF SPIN-OFF | 1995/6 | (n)  | 1996/7 | (n)  |
|------------------|--------|------|--------|------|
| Immediate        | 64.6   | (7)  | 72.6   | (7)  |
| Past             | 53.2   | (3)  | 34.7   | (5)  |
| Both             | 67.1   | (14) | 55.4   | (12) |
| Not a spin-off   | 13.2   | (2)  | 14.9   | (2)  |

**Table 6: Exports (% of sales turnover)**

| TYPE OF SPIN-OFF | 1995/6 | (n)  | 1996/7* | (n)  | 1997/8* | (n)  |
|------------------|--------|------|---------|------|---------|------|
| Immediate        | 7.8    | (8)  | 9.6     | (8)  | 14.8    | (8)  |
| Past             | 9.2    | (6)  | 22.5    | (6)  | 31.7    | (6)  |
| Both             | 5.1    | (19) | 15.1    | (18) | 22.4    | (17) |
| Not a spin-off   | 0.3    | (3)  | 0.7     | (3)  | 1.3     | (3)  |

**Table 7: Team Ventures and Spin-offs**

| TYPE OF SPIN-OFF | NO OF TEAMS | NO OF SOLE ENTREPRENEURS |
|------------------|-------------|--------------------------|
| Immediate        | 7           | 2                        |
| Past             | 8           | 2                        |
| Both             | 16          | 7                        |
| Not a spin-off   | 3           | 3                        |
| <b>TOTAL</b>     | <b>34</b>   | <b>14</b>                |

**Table 8: Mean Employment and Team Ventures**

|                   | 1995/6 (n) | 1996/7 (n) |
|-------------------|------------|------------|
| Team Venture      | 10.9 (28)  | 16.7 (30)  |
| Sole Entrepreneur | 2.6 (6)    | 4.5 (8)    |
| Outlier excluded  |            |            |

**Table 9: Mean Turnover and Team Ventures**

|                   | 1995/6 (n) | 1996/7 (n) |
|-------------------|------------|------------|
| Team Venture      | 487.1 (24) | 652.3 (23) |
| Sole Entrepreneur | 91.7 (10)  | 117.1 (7)  |
| Outlier excluded  |            |            |

**Table 10: Turnover per Employee and Team Ventures**

|                   | 1995/6 (n) | 1996/7 (n) |
|-------------------|------------|------------|
| Team Venture      | 68.9 (20)  | 59.2 (20)  |
| Sole Entrepreneur | 33.5 (6)   | 32.1 (6)   |

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