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**PATTERNS AND TRENDS IN ENTREPRENEURIAL NETWORK  
LITERATURE 1993-2003**

Jialin Yue & Alistair R. Anderson & Douglas Cruickshank  
Aberdeen Business School  
The Robert Gordon University  
Garthdee Road,  
Aberdeen  
E-mail: [prs.yue@rgu.ac.uk](mailto:prs.yue@rgu.ac.uk)  
E-mail: [a.r.anderson@rgu.ac.uk](mailto:a.r.anderson@rgu.ac.uk)  
E-mail: [d.cruickshank@rgu.ac.uk](mailto:d.cruickshank@rgu.ac.uk)

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## **Patterns and Trends in Entrepreneurial Network Literature: 1993-2003**

### **Introduction**

Entrepreneurial networking has, in recent years, become a major theme in entrepreneurship research. From the seminal work of Birley in 1985, a rich range of publications has emerged. In a recent review article by Greve and Salaff (2003) the authors note how students of entrepreneurship increasingly recognise that business decisions are embedded in social structure. This can, in part, be explained by the very practical recognition that networking can reduce transaction costs (Bygrave and Minniti, 2000) and that networking provides, or rather articulates, positive role models for aspiring entrepreneurs. Birley et al, (1991) points out that the networking seems to be an ideal mechanism for effectiveness. A more general view is that entrepreneurship is itself a social practice with economic outcomes, thus the process of entrepreneurship draws from both the individual and the context (Anderson, 2000). Young (1998) proposes that economic actions between actors are conditioned by ongoing structures of social relations so that the social context will influence economic outcomes. Aldrich and Zimmer (1986) remarked that entrepreneurship is embedded in a social context, channelled and facilitated, or constrained and inhibited by people's position in a social network, so that the entrepreneur is dependent upon the information and resources provided by social networks (Carsrud and Johnson, 1989). Johannisson *et al* (1994) illustrate how entrepreneurs build networks that blend business and social concerns (Johannisson, 1995:226). Whilst Gibb and Ritchie (1981:193) argued that “entrepreneurship can be wholly understood in terms of the different types of situations encountered, and the social groups to which they relate”. So in this perspective networking is seen a bridge between the individual and the socio-economic context for enterprise (Johannisson and Monsted, 1997). Networking is defined by Chell and Baines (2000:196) as, “social processes over and above the normal economic trading relationship”. This provides a flavour of the impact networking has on entrepreneurship.

This paper reflects the increasing interest in entrepreneurial networking. Indeed Monsted (1995) suggests that networking is now a vogue concept in the entrepreneurship field. The popularity of the network theme has resulted in an increasing number of publications. Our study is an attempt to first quantify the growth in network research, as indicated by published papers. It then attempts to provide a guide to developments in network publications. We consider which journals publish networking articles, how often and plot the changes over time. Since we are interested in providing an overview of developments in entrepreneurial networking research, we also consider who is publishing and in what journals. Many of us have felt that there is a gap between what Europeans

publish and work which is based in the USA. However there does not appear to have been any systematic work to explore these differences. It also seems important to look at what aspects of networking have captured the interest of scholars and to establish what methodologies have been employed. In this way we may be able to see how mature the sphere of networking research has become. This is not a critical review of the networking literature. It is more an attempt to quantify the field, and to trace out any patterns in the publications. In this way we hope to provide an overview of how things have developed, what is seen as important and to offer some explanations of why.

The contribution of this paper is not in theory development. Our focus on the range and variety of publications is intended to paint a picture of what is happening in the field. However it may have some very practical implications for those who choose to plough the rich field of entrepreneurial networking. From this paper they may be able to develop an appreciation of the “best” home for their efforts, recognise that certain journals publish more of certain approaches, and acquire an understanding about which methodologies seem to be more influential (Blackburn et al, 1991). These are not trivial aspects because the publication of our efforts is now a critical issue for many scholars. Guidance about selecting journals is useful knowledge.

The paper begins by showing the increasing number of publications about networking in the last 11 years. We also illustrate the breakdown of the authors’ country of origin across our sample. We then move to explore the broad aims and content of the papers. Next we examine the frequencies in specific journals. This is particularly interesting since it demonstrates the establishment of the topic, not least by the increasing number of such publications. Our paper then considers who is publishing. In this section we are interested in the nationality of the authors and where they publish. This then allows us to make comparisons, and to judge if the field is dominated by the Americans. This is important, we argue, not least because of the internationally recognised “top 5” quality journals, four are American. We also consider methodological approaches and find, unsurprisingly, that quantitative methodologies dominate the American field. From these data we make a number of observations. Finally we conclude our efforts by imagining the future for entrepreneurial networking research.

## **Methodology**

The objective of this study was to capture most, but not all, papers considering entrepreneurial networking during our sample frame period from January 1993 to December 2003. The aim was not to achieve a 100% coverage of appropriate literature, but rather to ensure that a sufficient majority of papers were included so that trends and patterns could be identified. To this end, three source databases were utilised, namely EBSCO (Business Source Premier), Emerald and Science Direct. It was felt that the majority of relevant English language journal papers would be retrievable from these.

We started with the prime search terms of 'network' AND with each of 'entrepreneurship', 'entrepreneur', 'small business', 'SME', 'SMB', 'new venture', 'social capital' and 'trust'. These search words were derived from our own experience of the networking literature. We sought for matches in both the Keyword and Abstract fields in each of the three databases. We also experimented with and utilised various other criteria. On return of search results, we reviewed each paper's abstract to assess its appropriateness for inclusion in our sample. At this stage, many papers were discarded as not being concerned with entrepreneurial networking in some way. In addition, it was necessary to access the full paper text in order to ascertain some details, notably the kind of methodology used by the paper. Our valid sources were then transferred into Endnotes (Thomson ISI ResearchSoft's bibliography management tool) with additional notes for future reference.

For analysis, it was initially thought that Endnotes would be suitable. This tool has several additional fields which could potentially have been used for storage and retrieval of the topics and terms of interest to us. However, while Endnotes could be used in this way to a certain extent, it was not sufficiently flexible for our purposes. Accordingly it was decided to use SPSS (SPSS Inc's statistical analysis tool) to contain our dataset for subsequent analysis. Appropriate variables were established in keeping with the aims of the study. As with the word search, these categories were derived from our own experience. The main variables used are given below. Most of these were further sub-divided into more specific terms, which are not discussed here.

Analysis was initially conducted by reviewing the data to gain a general appreciation and then all basic frequencies were produced. Various cross-tabulations were tested to seek out interesting patterns or trends in the data.

Main variables and categories

Year (year of publication)

*Paper Content:*

Structure (the aspects of network structure, if any, considered by the paper)

Relational Aspects (network relational aspects, if any, considered by the paper)

Nature of Networks (aspects such as heterogeneous, homogeneous, dynamic, if any, considered)

Process (aspects of networking process, if any, considered by the paper)

Typology (network types such as inter-firm, social, regional, if any, considered by the paper)

Network Development and Change (aspects of network evolution, if any, considered by the paper)

Network Purpose and Outcome (such as innovation, growth internationalisation, if any)

External Factors (external influencing factors, such as governmental, regional, economic, if any)

Internal Factors (internal factors such as gender, religion, personal characteristics, if any)

*Purpose of the Paper:*

Theory review

Development of theory

Testing a theory

Discussion of practical issues

*Methodology:*

Literature review and theory development

Quantitative

Qualitative (eg interviews)

Mixed (qualitative and quantitative)

Case study (case study methods only)

*Author Origin:*

USA

Canada

UK

Scandinavia

Rest of West Europe

Australia

Various other regions/countries

*Journal:*

All journals in which relevant papers appeared. However we have selected a set of 5 of the 'top' entrepreneurial journals Busenitz (2003), Katz (2003) for more detailed analysis. These are Journal of Business Venturing (JBV), Journal of Small Business Management (JSBM), Entrepreneurship and Regional Development (ERD), Entrepreneurship Theory and Practice (ETP), Small Business Economics (SBE).

Discussion and limitations

The analysis below is based upon our dataset of 252 papers. However we are aware that there are some papers not included, particularly from some our set of top 5 journals. Since our analysis work has been undertaken we have identified by further variations on our search terms that there are likely to be of the order of a further 5-10 papers related to entrepreneurial networking in both ETP and ERD, in particular. Despite this shortcoming however, we do not expect our general conclusions to be affected and expect the same broad patterns and trends.

An important lesson to be taken from our methodological approach, is that the databases are highly sensitive to search terms. To illustrate this point, we have identified 22 papers in JBV. However use of an apparently appropriate search term of 'entrepreneurship' AND 'network\*' in EBSCO (Business Source Premier), yielded only 2 entries from JBV. Conversely we believe that our initial search terms did not uncover some relevant papers, particularly in ETP and ERD. For the next stage of our research, further work will be undertaken to fill any significant gaps in our dataset.

Another limitation is that there are approximately 20 papers for which we have not yet obtained the full text versions. The particular implications are that we therefore have some entries in our dataset for which it has not been possible to identify the methodology employed. However we do not expect this to impact the overall conclusions.

**Discussion of findings**

The results are discussed within the following contexts:

- Overall review
- Overall trends and patterns
- Journal analysis

- Author origins and journal outputs
- Methodologies employed in relation to author origin

**Overall review**

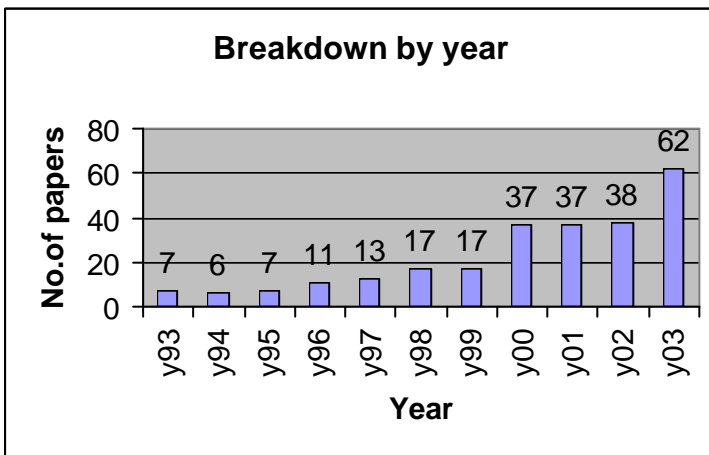
The dataset was analysed at an overview level. Firstly the total number of papers was broken down by year and the results are shown in Table 1 below.

*Breakdown of papers by year*

| <b>Year</b>          | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|
| <b>No. of papers</b> | 7    | 6    | 7    | 11   | 13   | 17   | 17   | 37   | 37   | 38   | 62   |

*Table 1*

The trend is illustrated in the chart below.



*Chart 1*

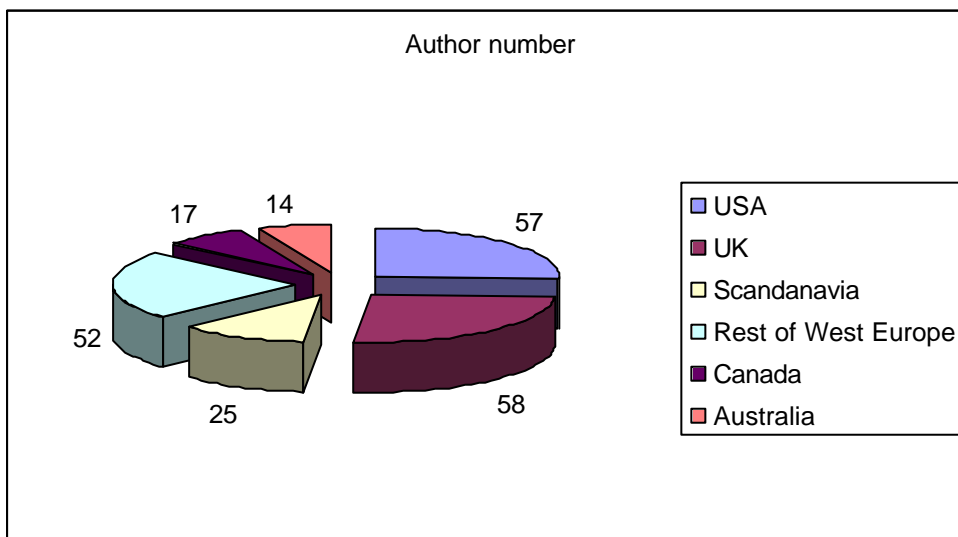
This shows an increasing numbers of papers, year on year, in entrepreneurial networking. This may be broadly broken down into three periods, comprising the ‘early years’ 1993-1999 where small numbers of such papers were published. Then a significant increase, virtually doubling the annual total, occurred in 2000 until 2002. Then another major increase occurred in 2003. This trend demonstrates the increased interest in entrepreneurial networking. While several entrepreneurial journals existed in the early period 1993-1999, the relative number of articles published on networking was small. The topic only apparently became popular from 2000 onwards, although there may perhaps be a two year lead time for research and publication. The general growth in numbers may be partly reflective of an increase in the number of entrepreneurship departments within academic institutions over the past few years.

The second broad analysis undertaken is a breakdown of the number and country of origin of the authors. This is shown in Table 2 and Chart 2 below. In addition to the main countries and regions listed, there were articles from authors from several other countries, with only small numbers of authors from each of these.

*Breakdown of author country of origin*

| Country             | Author number |
|---------------------|---------------|
| USA                 | 57            |
| UK                  | 58            |
| Scandinavia         | 25            |
| Rest of West Europe | 52            |
| Canada              | 17            |
| Australia           | 14            |

*Table 2*



*Chart 2*

Perhaps the most surprising finding here is the relatively large number of UK authors, which are on a par with USA numbers. This may be a reflection of the UK academic environment where several entrepreneurship departments have been established in recent years. Only English language journals were included, which may be a factor affecting the relative frequencies.

**Overall trends and patterns**



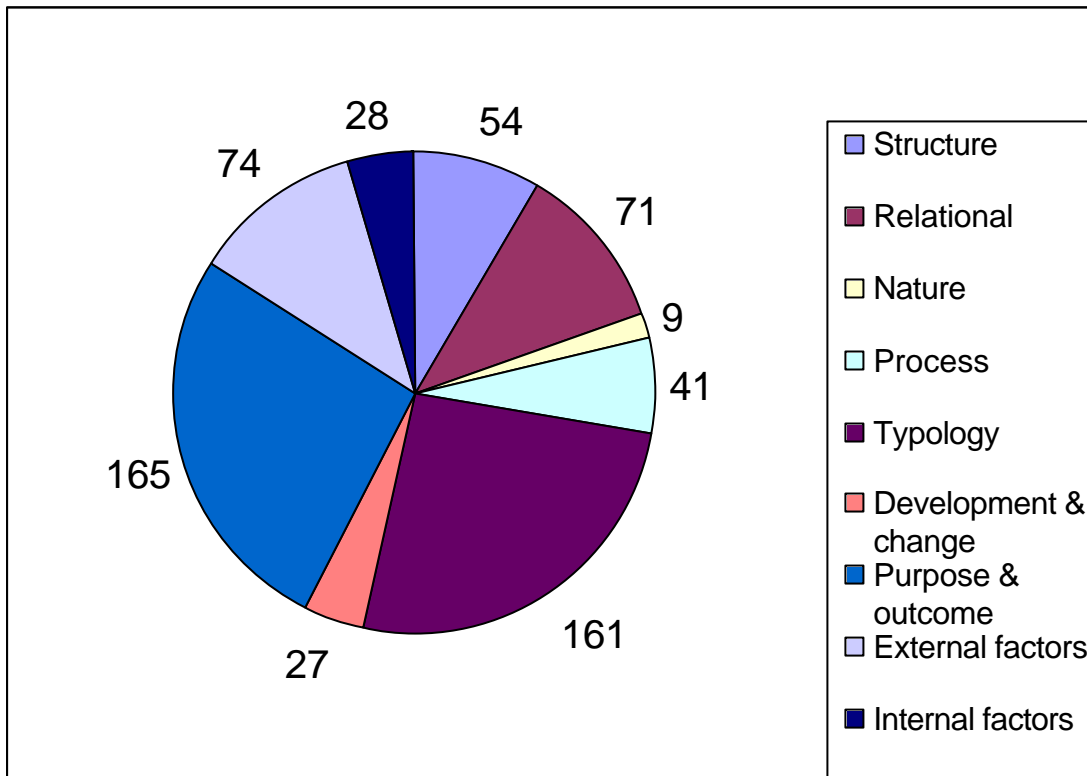
We are interested in exploring to what extent entrepreneurial network is a maturing discipline. One way in which we approached this question was to examine the purpose of the papers in our sample. Some general trends are discernable which yield partial indications. There are many papers whose aim is the development of a theory. Three fifths (165) of our sample had this purpose. The distribution of these theory development papers over time follows a roughly similar pattern to the trend in the overall numbers of papers and illustrated in Chart 1. Thus there are still many theories being proposed at the end of our time frame. This contrasts with the findings on papers dealing with the testing of theories. We found only 25 such papers, representing only around 10% of our sample. Moreover the majority of such papers, was published in recent years, 2000-2003. In the same vein, 3 papers with a purpose of reviewing the literature in our topic area were identified, the earliest being published in 2001. The final purpose category we used was that of practical discussion. We found around 20% (51) papers matched this classification, again following a similar distribution to the overall paper numbers shown in Chart 1. The above analysis of the purpose of the papers suggests that entrepreneurial networking is still an evolving discipline, as illustrated by the relatively large numbers of papers developing theories and discussing practical issues. However there are some early signs of maturity. In recent years there has been a significant increase in theory testing literature. Moreover the first literature review articles, albeit in small numbers, have started to appear.

We are also interested in an examination of the entrepreneurial topics being investigated by researchers. The overall dataset was broken down by the various topics or ‘aspects’ of entrepreneurial networking as described in the methodology. These findings shown in Table 3 below and illustrated in the accompanying chart.

*Breakdown by aspect of entrepreneurial networking*

|                                |     |
|--------------------------------|-----|
| Structure                      | 54  |
| Relational aspects             | 71  |
| Nature of networks             | 9   |
| Networking process             | 41  |
| Network typology               | 161 |
| Network development and change | 27  |
| Network purpose and outcome    | 165 |
| External factors               | 74  |
| Internal factors               | 28  |

*Table 3*



*Chart 3*

The large numbers of papers including some consideration of network typology, network purpose and outcome and external factors demonstrate that a somewhat practical approach is being followed by the majority of the literature with networks being set within real world situations and applications, rather than in abstract contexts. There is a larger number of such papers than those dealing with the more internally focussed subjects of structure, relational aspects and process.

The distributions of the above aspects over time were examined. For most of these broad topics no clear patterns, which differed from the overall trend of Chart 1, were discernable. The possible exceptions to this are the aspects of external factors and internal factors. For these topics, there are broadly similar numbers of papers over the 4 year period 2000-2003. In particular, literature dealing with such topics does not exhibit an increase in 2003. The possible reasons for this are unclear and it may need longitudinal data for 2004 and 2005 in order to propose an explanation for any emerging trend. The aspects or topics we have used here are very broad and further study of more specific sub-topics may be enlightening. For example, within structure it can be seen that the most prevalent sub-topics in our classification are related to strong ties and weak ties. Similarly within relational aspects, matters relating to trust and social capital are predominant. However it is proposed to conduct a more detailed investigation pursuant to this work.

**Journal analysis**

An examination of the journals was conducted. 10 journals had 4 or more articles on entrepreneurial networking. The breakdown for the 10 journals is as follows:

*Breakdown by journals*

| <b>Journal</b>  | <b>Journal Code</b> | <b>No. of papers</b> |
|---|---------------------|----------------------|
| Journal of Business Venturing                                   | JBV                 | 22                   |
| Journal of Small Business Management                            | JSBM                | 4                    |
| Entrepreneurship and Regional Development                       | ERD                 | 7                    |
| Entrepreneurship Theory and Practice                            | ETP                 | 4                    |
| Small Business Economics  | SBE                 | 4                    |
| Journal of Small Business and Enterprise Development            | JSBED               | 12                   |
| International Journal of Entrepreneurial Behaviour and Research | IJEBR               | 12                   |
| Research Policy   | RP                  | 6                    |
| Social Networks   | SN                  | 4                    |
| Technovation  | TECH                | 10                   |

*Table 4*

From the above, it can be seen that JBV contains the largest quantity of papers. In addition to the journals listed above, articles considering aspects of entrepreneurial networking appeared in a further 132 journals in quantities of 1, 2 or 3. Thus it can be seen that the majority of articles appeared in journals other than the 10 listed above. This is considered further in the table below.

*Breakdown of journals by year*

| YEAR         | JBV       | JSBM     | ERD      | ETP      | SBE      | JSBED     | IJEBR     | RP       | SN       | TECH      | 10J       | 5J        | ALL        | PR 10J      | PR 5J       |
|--------------|-----------|----------|----------|----------|----------|-----------|-----------|----------|----------|-----------|-----------|-----------|------------|-------------|-------------|
| 1993         | 2         | 1        |          |          |          |           |           |          |          | 1         | 4         | 3         | 7          | 0.57        | 0.43        |
| 1994         | 4         |          |          |          |          |           |           | 1        |          |           | 5         | 4         | 6          | 0.83        | 0.67        |
| 1995         | 2         |          |          |          |          |           |           |          |          |           | 2         | 2         | 7          | 0.29        | 0.29        |
| 1996         | 2         |          |          |          |          |           | 1         | 1        |          |           | 4         | 2         | 11         | 0.36        | 0.18        |
| 1997         | 2         | 1        |          | 1        |          |           |           |          | 1        | 1         | 6         | 4         | 13         | 0.46        | 0.31        |
| 1998         | 3         |          |          |          |          | 1         | 1         | 1        | 2        | 1         | 9         | 3         | 17         | 0.53        | 0.18        |
| 1999         | 0         |          | 1        |          |          | 1         | 2         | 1        |          | 1         | 6         | 1         | 17         | 0.35        | 0.06        |
| 2000         | 1         | 1        | 1        | 2        | 1        | 3         |           |          |          | 1         | 10        | 6         | 36         | 0.28        | 0.17        |
| 2001         | 1         | 1        | 3        |          | 1        | 2         | 2         |          | 1        | 1         | 12        | 6         | 37         | 0.32        | 0.16        |
| 2002         | 1         |          | 2        |          |          | 1         | 5         | 1        |          |           | 10        | 3         | 38         | 0.26        | 0.08        |
| 2003         | 4         |          |          | 1        | 2        | 4         | 1         | 1        |          | 4         | 17        | 7         | 62         | 0.27        | 0.11        |
| <b>Total</b> | <b>22</b> | <b>4</b> | <b>7</b> | <b>4</b> | <b>4</b> | <b>12</b> | <b>12</b> | <b>6</b> | <b>4</b> | <b>10</b> | <b>85</b> | <b>41</b> | <b>251</b> | <b>0.34</b> | <b>0.16</b> |

*Table 6*

This table shows an analysis for each of the 10 journals containing the most papers. In addition, it shows an analysis for 5 of the 'top' entrepreneurship journals (JBV, JSBM, ERD, ETP, SBE). 10J and 5J represent the total articles per year in the set of 10 journals and the top 5 entrepreneurship journals respectively. PR 10J and PR 5J represent the proportions of all papers appearing in the sets of 10 and top 5 journals respectively.

It can be seen that the proportion of all entrepreneurial networking articles appearing in both our sets of 10 and top 5 journals was high in the early years but reduced considerably to around 27% for the set of 10 and 11% for the top 5 set. The trends for particular journals are interesting. In particular, JBV shows a trend contrary to the others. In the early years, the majority of articles appeared in this single journal. It was only in the 'mid' years that articles started appearing in other journals. Moreover articles have continued to increase generally in the other journals whereas articles in JBV have decreased. This suggests that the importance of research in entrepreneurial networking may have been highlighted by JBV and then taken up in the mid years and developed by other journals. We have already identified that testing of theories has been undertaken in the later years. The above scenario gives further credence to the view that the field of entrepreneurial networking is still developing and evolving but showing some early signs of maturity. Another trend may be suggested by the fact that an increasing number of articles are appearing outwith the top 5 or our set of 10 journals. A much broader range of topics and disciplines is covered by these other journals, such as marketing, human resources, management, and specific industry sectors. This suggests that increasingly entrepreneurial networking is being researched in other contexts, as distinct from being a core entrepreneurship topic.

### **Author origins and journal outputs**

The top 5 entrepreneurship journals were examined for patters in authorship and types of article published. The breakdown of journal versus country of author is given in Table 7.

*Journal versus Country of author origin*

| <b>Journal</b> | <b>USA</b> | <b>Canada</b> | <b>UK</b> | <b>Scand</b> | <b>W. Eur</b> | <b>Aust</b> |
|----------------|------------|---------------|-----------|--------------|---------------|-------------|
| JBV            | 11 (22)    | 4 (7)         | 2 (5)     | 1 (1)        | 2 (2)         |             |
| JSBM           | 1 (2)      | 1 (1)         |           |              | 1 (2)         | 1 (1)       |
| ERD            | 1 (3)      |               | 3 (4)     |              | 3 (5)         |             |
| ETP            | 2 (4)      | 2 (4)         |           | 1 (1)        |               |             |
| SBE            |            |               |           |              | 1 (2)         |             |

*Table 7*

In this table, the numbers of papers are shown without brackets. The bracketed numbers represent the total number of authors, as many papers have multiple authors from the same country. We see that JBV and ETP have a larger proportion of North American authors, compared to other journals notably ERD where most of the authors are from UK and W. Europe. Other journals in our set of 10, notably JSBED, IJEBR and TECH tend to have more contributions from UK and Europe.

From the perspective of the top 5 journals, we also studied the purposes of the papers (theory development, theory test etc) and also the methodologies utilised. The findings are summarised in Table 8.

*Purposes of papers*

| <b>Journal</b> | <b>Theory Review</b> | <b>Theory Develop</b> | <b>Theory Test</b> | <b>Practical Issues</b> | <b>Total</b> |
|----------------|----------------------|-----------------------|--------------------|-------------------------|--------------|
| JBV            |                      | 11                    | 6                  | 5                       | 22           |
| JSBM           |                      | 2                     |                    | 2                       | 4            |
| ERD            | 1                    | 4                     |                    | 2                       | 7            |
| ETP            |                      | 3                     | 1                  |                         | 4            |
| SBE            |                      | 2                     |                    | 2                       | 4            |

*Table 8*

It is interesting to note that 5 papers concerning theory testing were published in JBV and further analysis determined that these were distributed throughout the 11 year period, rather than, for example, being concentrated in the later years. Apart from that pattern, the purposes of the papers in other top 5 journals fell into similar categories.

A similar analysis was conducted on methodologies utilised by the top 5 journal papers. The main finding was that the principal use quantitative methods was within JBV. 9 of its 22 papers employed such techniques, with a further 3 using mixed methods (qualitative and quantitative). All other top 5 journals used primarily qualitative and case study methods. Taking into account the shortcomings in the methodology mentioned in that section, it would clearly be interesting to re-visit the more detailed analyses of the top 5 journals, with an enhanced dataset.

It was felt useful to examine the distribution of the author origins by year. Two patterns emerged from this analysis. Firstly, it was noted that there is an increasing trend for multiple authorship.

The pattern for the USA is shown in Table 9 below and similar distributions were seen for our main other country groupings.

*Number of Authors per Year (USA example)*

| <b>Year</b>  | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>Total Papers</b> |
|--------------|----------|----------|----------|----------|----------|---------------------|
| <b>1993</b>  | 2        | 0        | 0        | 0        | 0        | 2                   |
| <b>1994</b>  | 1        | 0        | 1        | 0        | 0        | 2                   |
| <b>1995</b>  | 0        | 0        | 1        | 0        | 0        | 1                   |
| <b>1996</b>  | 1        | 1        | 1        | 0        | 0        | 3                   |
| <b>1997</b>  | 2        | 2        | 1        | 0        | 0        | 5                   |
| <b>1998</b>  | 1        | 1        | 1        | 0        | 0        | 3                   |
| <b>1999</b>  | 0        | 0        | 1        | 0        | 0        | 1                   |
| <b>2000</b>  | 1        | 4        | 1        | 0        | 0        | 6                   |
| <b>2001</b>  | 2        | 2        | 2        | 2        | 0        | 8                   |
| <b>2002</b>  | 5        | 2        | 3        | 0        | 0        | 10                  |
| <b>2003</b>  | 4        | 6        | 3        | 1        | 2        | 16                  |
| <b>Total</b> | 19       | 18       | 15       | 3        | 2        | 57                  |

*Table 9*

Two possible explanations for this trend towards increasing multiple authorship are suggested. Perhaps it may be accounted for by increased pressures to achieve publications within academic establishments. However a more interesting scenario is that the discipline of entrepreneurial networking may be maturing to the extent that the topics being investigated are increasingly multi-disciplinary and require multiple authors to be involved to cover the breadth of subject matter. For example, a paper may investigate entrepreneurial networking issues within a marketing context. Such a study may require specialists in both entrepreneurship and marketing. This point is also supported by the discussion above concerning the increasingly large range of journals in which entrepreneurial networking articles are published. It is intended to examine this finding in greater depth by further study.

The second finding discerned from examining the distribution of author origins over time is that authors within our main country groups (as indicated in Table 7, for example) tended to published articles earlier than authors from other countries. This may be a case of authors in our main country groups setting trends and authors from the other countries joining in this research activity at a later date. It may also reflect government and academic policies and priorities across the different country groups.

**Methodologies employed in relation to country of author origin**

Following on from the analysis by journal, a different angle was taken to examine the methodologies used by authors from the various country groups. The findings are summarised in Table 10.

*Methodologies by Author origin*

| Country Group | Lit Rev & Theory Dev | Quantitative | Qualitative | Mixed (Quant+Qual) | Case Study |
|---------------|----------------------|--------------|-------------|--------------------|------------|
| USA           | 24                   | 14           | 5           | 5                  | 7          |
| UK            | 14                   | 5            | 14          | 4                  | 17         |
| Scandinavia   | 5                    | 4            | 3           | 4                  | 6          |
| W. Europe     | 15                   | 5            | 7           | 5                  | 16         |

*Table 10*

It is to be noted that, at time of writing, the data in this table is incomplete. There are a relatively small number of papers whose methodology is not yet determined as the source articles have not yet been obtained. However we do not expect this to make any significant difference to the overall distribution. Table 10 shows a striking difference between the USA and UK + W.Europe. USA authors employ quantitative methods considerably more than UK and W. Europe. Conversely UK/W. Europe make much greater use of qualitative methods and case studies. The brief summary below simplifies and emphasises this point.

|           | Quantitative | Qualitative + Case Study |
|-----------|--------------|--------------------------|
| USA       | 14           | 12                       |
| UK        | 5            | 31                       |
| W. Europe | 5            | 23                       |

A further point which emerges from Table 9 is the strong use of theory development from literature employed by authors from the USA compared to other areas.

**Conclusions**

From our discussions above, the main conclusions are now drawn and grouped into key themes.

Growth– The field of networking within an entrepreneurial context has grown considerably over the 11 year period. From a small number of pioneering papers in the early years, there was a significant growth in the period 2000 to 2002, followed by further major leap in 2003. The field has thus become increasingly popular, perhaps reflecting government policies during the period in the

middle of our timeframe. It is interesting to note that the most recent growth of publications has occurred mainly in journals outside of main entrepreneurship journals.

Author origins – The large majority of publications are produced by authors from USA, UK, West Europe, including Scandinavia, Canada and Australia. The most surprising finding is perhaps the large number of UK authors, equalling USA author numbers, in our survey. This may be due to the relatively recent establishment of an increasing number of entrepreneurship departments within UK academic institutions. It was evident that, in general, authors from countries outwith the areas listed above, tended to publish in the more recent years, suggesting that they may be ‘picking up’ and developing the potentially more pioneering work of the main author areas. Another trend was the increasing occurrences of multiple authors throughout our timeframe. This suggests that papers may be becoming more multi-disciplinary requiring 3, 4 or more contributors to become involved.

Paper aims and methodologies – The purpose of majority of papers is to develop theory. There are also many discussing various practical issues. There is continued growth in such papers throughout our timeframe. A minority of papers aim to test theories or to produce a literature review, however such papers have tended to have been published in recent years. Overall the most popular methodologies in our categories were developing theories from literature, from case studies and to a lesser extent from other qualitative methods, such as interviewing. Quantitative techniques were employed less.

In examining methodologies by country, a clear trend emerged. USA authors tended to favour the methodologies based on either developing theories from literature or by using quantitative methods. This was in sharp contrast to the UK and Europe where case studies and other qualitative methods predominate.

Maturity of the discipline – It is clear that entrepreneurial networking is still evolving, as there are large numbers of papers developing theory still being produced. However there are some early signs of maturity and the first literature review papers have recently appeared. Another indicator is the large numbers of papers being produced in journals which do not specialise in entrepreneurship. This suggests that entrepreneurial networking is a recognised concept that researchers are now investigating within other contexts, such as marketing or human relations. Moreover, the most common aspects or topics studied included business situation categories such as network purpose and outcome, external factors and typology as opposed to more inward looking categories of



structure and process. In addition, this view is also supported by the increasing instances of multiple authorship.

Journal trends – The dominant journal in field appears to have been JBV, as it was involved early and has the most relevant publications. It also exhibits an interesting trend. It appears to have been a pioneer in publishing articles on entrepreneurial networking in the early period of our survey but unlike most other publications has not continued this growth. Other journals in our top 5 journals, tended to publish articles from the late 90's onwards. This may be a case of JBV identifying an important topic which is subsequently developed by other journals.

Within the top 5 journals, the analysis of authors has highlighted that North American authors, particularly from USA, are predominant. JBV in particular has over half its contributors from USA or Canada. While UK authors feature highly in the overall total, this is not reflected within the top 5. There may be an exception for ERD as there is a high proportion of a relatively small total from UK.

As with most other journals, our top 5 are mainly comprised of articles developing theory. In addition it is evident that JBV also has relatively more theory testing articles than other journals. Perhaps related to this, it was identified that nearly half of JBV's papers use quantitative methods, whereas the other top 5 journals tended to have more papers employing qualitative and case study techniques.

Future research trends – Based on the foregoing analysis, we can offer certain predictions for future trends in entrepreneurial research. Continued growth in the field is expected, particularly when studying entrepreneurship within the context of other disciplines or various business situations. Analogously, we expect further increases in authorship from countries outwith our core areas of North America, Europe and Australia. This suggests there may be partnership opportunities for researchers. Again within the same theme, we expect more publication in non-specialist journals. It is also to be expected that there will be a significant increase in theory testing and quantitative work, as there is now a wealth of developmental work undertaken by pioneers which can serve as a rich resource base for future researchers.

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