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A TYPOLOGY OF RESEARCH IN SMALL BUSINESS AND ENTREPRENEURSHIP

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for

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Introduction

In the past ten years, there has been a significant increase in the number of people who need to know how entrepreneurship and small business operate in practice. These include policy makers in government, financial institutions, educators and the now-large army of people offering services to this clientele, ranging from consultants through economic development personnel to experts in technological applications for businesses.

In the course of this growth of interest in the field, many organizations have performed useful research, but all too often, the fruits of their labour have gathered dust on forgotten shelves and others have had to repeat the work - or make decisions based on a faulty understanding of the dynamics of small business and entrepreneurship. Academic research has progressed in this same period, accumulating a now-impressive range of topics, but much of this is not accessible to entrepreneurs or even the intermediaries who offer them services. Moreover, the topics chosen by academics reflect their perception of the cutting edge of knowledge in their field - which may or may not coincide with the immediate needs of entrepreneurs and the intermediaries who service them.

The Entrepreneurship and Small Business Office of Industry Canada therefore decided to assemble a data bank of all the research done by academics, governments, business associations and community or other organizations pertaining to this field and to classify this research in order to establish what work has been done so far and where the most important gaps are. In addition, the intent is that the resulting data bank should be easily accessible, so that it can be used, particularly by non-academics, to speed their own work and encourage co-operation between people engaged in research at any level.

The scope of this task is sufficiently large that this report can be seen as Phase I in a wider project that can become, if such a need is identified, a basis for educating all who serve this market.

Methodology

Scope

The sources of research on entrepreneurship and small business includes books, academic papers, government papers and research performed by many business associations. We have included some papers that are "in process" or "contemplated" with a view to alerting people considering research if work is already under way on the same subject.

It was decided to limit the scope of the search to data about Canada or data comparing Canada to other countries - unless a study was done on another country by a Canadian-based researcher. By limiting ourselves to Canadian work, we exclude many seminal papers done by researchers in the US, Europe and elsewhere, but this would be altogether too large a task for Phase I - and besides, much of this research does not necessarily apply to Canadian entrepreneurs. A few of these important, non-Canadian, papers have been included in this data bank, however, although they have been disqualified for the purposes of the analysis in

the section entitled Results. Over time, such a bank of ground-breaking research can be built further to provide a useful service to inexperienced people wishing to familiarize themselves with the field.

It is almost impossible to immediately capture all the work on entrepreneurship and small business, but it is hoped that a good start will have been made by this paper and that continuing co-operation and participation by researchers in Canada will build on this foundation to create a truly comprehensive collection of the existing and proposed body of research. It is recommended that the data bank generated in this paper should be put on the Internet (perhaps Strategis) and people can be encouraged to file corrections, updates, and expansions to the data bank. Phase II could conceivably include the following activities:

- A. an invitation to all known researchers in the field to visit the site and file details of work with which they are familiar or make corrections or additions to work already in the data bank;
- B. a review of the classification system used in this paper, which is entirely new and may not suit all aspects of the research;
- C. a regular updating of the data bank to incorporate new records and amended classifications; and
- D. the development of the section dealing with research "in process" or "contemplated" to provide an opportunity to share information and insights while research is in the process of being performed.

The principal sources for research in this phase were as follows:

- I. The ABI index. There are other indices, such as the Social Sciences index, which contain academic and other research, but the ABI was considered to be a good start that would encompass a significant portion of the available records.
- II. Entrepreneurship journals. There is only two Canadian journals - The Journal of Small Business and Entrepreneurship (originally known as the Journal of Small Business Canada), published in Toronto, and La Revue Internationale PME, published by the SME Research Institute, which is attached to the Université du Québec à Trois Rivières. Back copies of all the JSBE journals (from Volume 1 in 1983) were obtained for this paper, but back copies La Revue were found only back to Volume 8 in 1995. Abstracts were not available for all the Revue Internationale papers.
- III. Academic conferences. The past ten proceedings of the annual conference of the International Council of Small Business - Canada (now known as the Canadian Council for Small Business and Entrepreneurship), as well as proceedings from other academic conferences where Canadian academics presented papers (although this was spotty as copies of these proceedings were often hard to find).
- IV. A mailing to all the known researchers and research sponsors in Canada. This list was garnered from:
 - A. the CCSBE mailing list,
 - B. ESBO's lists of officials in the federal and provincial governments as well as all the deans and the professors who lead research into the field at their institutions, and
 - C. the personal files of the author of this paper.

A letter was sent to about 350 people in these lists, asking for information on research in the field that they have performed or with which they are familiar. The response was satisfactory, yielding close to 1,000 pieces, notably from some academics whose response was extraordinarily thorough.

- V. The personal library of the author of this paper, which contained more than 500 pieces of research.
- VI. The library of the Canadian Federation of Independent Business.
- VII. A list of research commissioned by the federal government, provided by ESBO.

With so many sources, duplication was a problem, especially when so many academic papers are presented in more than one forum. The rules for inclusion were as follows:

- A. When a paper with a similar title was presented in more than one forum in the same year or one year apart, only one was included. The order of preference for inclusion was:
 - 1. a journal,
 - 2. proceedings from an academic conference,
 - 3. a paper commissioned by a named organization and
 - 4. a "self-published" paper.
- B. Submissions to political or government bodies and speeches that represented opinions rather than basic research were excluded. In some cases, these submissions or speeches contain solid research, but this work generally appears in another forum anyway.
- C. Evaluations of government or community programs are included, since these often constitute the primary form of research in some fields, particularly community-based programs.

While the primary purpose of this study is to define the typology of the field, enabling us to identify research gaps, a secondary purpose is to provide an accessible tool for non-academics to find out quickly what has been done on a subject in which they are interested. With this in mind, the data bank contains information that will make it more accessible - specifically:

- a. the title of the study
- b. the abstract (where available)
- c. the source of the data (by industry and region or country),
- d. the names of the authors,
- e. the funding organizations, where applicable,
- f. the publisher (a journal, a government, a book publisher, whatever),
- g. the status of the research (in process, contemplated or completed unless otherwise stated)
- h. the year of publication and, of course,
- i. the classifications

By using a query file, the data bank can be programmed to generate lists by author, source of data, funding organization or status of research, among other things - apart from the original purpose for which the data bank was assembled - the collections of papers according to any one classification.

Classification criteria

Background

There have been a number of academic attempts at classifying the type of research performed

on the subject of small business and entrepreneurship but these have generally been based on the keywords that are attached to papers in the academic data bases such as ABI. While these provide some insight and are helpful to academics in their literature reviews, they are mostly too general to provide any meaningful insight in terms that can be used by non-academics. In particular, they offer little insight into the operational issues that govern policy development and that can serve as a source of information and guidance for intermediaries working with entrepreneurs "on the ground".

In this study, an elaborate system of classification has been developed on the basis of a close study of the abstracts available. This system has evolved significantly in the course of performing the research, ultimately reaching a total of 22 classifications by subject or activity and 20 cross-sections of the community of small businesses and entrepreneurs. There could have been many more delineations, leading to a hierarchy of classifications, but there is not enough information at this stage to make this particularly useful, at least partly because only about half the documents had abstracts. The main exception is in matters touching financing, where there is a large body of research, enabling us to generate up to three levels of detail. In some other subjects (leadership, characteristics, technology and innovation, networking and alliances), the classifications combine a number of discrete sub-topics that may be broken down in a subsequent phase, given a sufficient volume of research. In most other cases there is not enough data to break down the classifications much further. As the data base expands and deepens in subsequent phases of research, some categories will be split into two or more (or will sub-divide at a lower level of detail for discernable sub-groups within the category).

In the initial phase when letters were sent to people throughout Canada who were known to have gathered data on entrepreneurship and small business, a selection of classification criteria were suggested. These were at any early stage in the development of the classifications and proved to be of little value, as most of the 150-plus self-evaluations had to be re-done in the light of the ultimate classification system. The extensive and sometimes complex definitions attached to the classification categories (see below) make it clear that it was almost impossible for the respondents to have anticipated the ultimate system.

The classifications that resulted are heavily dependent on the quality of the abstracts. Where abstracts were available, the classification is generally reasonably complete; where abstracts are not available, the title provides some guidance, but obviously misses key elements in the research in many cases. It is hoped that as people use this data base, they will provide us with abstracts that will enable a more comprehensive classification to be done for those studies.

Definitions

Subjects and cross-sections

The classification has been performed on a matrix, with one axis representing "subjects" and the other "cross-sections".

- ◆ The subjects represent inputs and/or outputs by or from small businesses and entrepreneurs. In other words, these studies are classified according to the activities, characteristics and context of entrepreneurship and small business.
- ◆ The cross-sections represent specific niches in the overall community of small businesses and entrepreneurs, such as women, or specific sizes of business or pre-entrepreneurs

(such as the unemployed).

The definitions of both subjects and cross-sections are shown in the two following tables:

No.	Subject title	Definition and comments
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Theory of entrepreneurship

- | | | |
|---|--------|--|
| 1 | Theory | This includes papers developing a theoretical basis for research into entrepreneurship and small business, including modelling and literature reviews aimed at elucidating the typology (among them this paper). It also includes analysis of methodological issues. |
|---|--------|--|

Entrepreneurship education

- | | | |
|---|----------------------------|--|
| 2 | Entrepreneurship education | All training and education that is "one-to-many" - specifically entrepreneurship education in schools, universities and colleges, as well as seminars on management skills offered by public or private organizations. |
| 3 | Counselling | All training and education that is "one-to-one", including all aspects of counselling and mentoring. |

Aspects of the entrepreneur

- | | | |
|---|------------|--|
| 4 | Attitudes | Opinion surveys and studies of concerns about and attitudes toward various aspects of entrepreneurship, suppliers, themselves etc |
| 5 | Leadership | <p>This category involves all leadership inputs focussed on internal organization, which can be defined as:</p> <ol style="list-style-type: none">1. leadership per se - for example, vision, management/leadership styles, ethics, personal skills, succession (mostly for family firms);2. decision-making processes (including boards of directors and advisors) and cognition analysis;3. leadership formats (such as partnerships, virtual organizations, team-building, intrapreneurship and other leadership strategies); and4. issues concerning ownership. <p>It does not include strategy or other outputs of the leadership process.</p> |

Enterprise - entrepreneur

No.	Subject title	Definition and comments
6	Characteristics	This category includes personal characteristics as well as enterprise characteristics. Personal characteristics covers general profiles that may include aspects such as demographic details, experience, educational background, etc. Firm characteristics include the age of firm, financial profile etc. This category includes surveys of the needs of entrepreneurs (but not the concerns, which are covered in attitudes). It does not include entrepreneurial behaviour or decision-making aspects, which are covered in leadership (see below).
7	Networking and alliances	This includes primarily the gathering and use of information and knowledge (internal and external, including networking) plus strategic alliances with other firms, including: <ul style="list-style-type: none"> ◆ relationships between sub-contractors and their lead firms, ◆ spin-offs from universities or high-tech firms ◆ strategic alliances or joint ventures and ◆ virtual companies
8	Success factors	This covers specific actions that have been successful (or not successful), for entrepreneurs and for organizations serving entrepreneurs. It also includes evaluations of programs for entrepreneurs.
9	Suppliers	Dealing with consultants, bankers, lawyers, as well as suppliers in the more traditional sense of the word. This includes the process of taking and using advice - as opposed to seeking sources of information and/or advice (see networking and alliances).

Aspects of the enterprise

10	Access to financing	Any aspect touching on obtaining financing, <u>not</u> the management of financial affairs (see functional issues).
11	Strategy	This is the counterpart of leadership. It relates to outputs that position the enterprise vis-à-vis its external environment. This includes all aspects of strategy including planning, intentions and orientation.

No.	Subject title	Definition and comments
12	Functional issues	<p>This encompasses specific disciplines as well as overall organizational development. Specific disciplines include:</p> <ul style="list-style-type: none"> ♦ marketing (including the management of exporting) ♦ finance, which covers the management of cash and finance in the context of an ongoing business (i.e. not in the context of access to financing) ♦ tax ♦ operations ♦ human resource management (HR) ♦ Electronic Data Integration and Electronic Commerce (EDI/E-C) ♦ administration etc. <p>The organizational development aspect covers:</p> <ul style="list-style-type: none"> ♦ organizational structure, general or strategic management, including internationalization and/or globalization, but excluding leadership ♦ management of change ♦ competitiveness, competence, efficiency and quality ♦ management of ongoing relationships with bankers, investors, etc.
13	Business performance	<p>This incorporates specific quantification of business performance, such as productivity growth or profitability etc, not just "success" or "survival". It includes benchmarking processes.</p>
14	Technology & innovation	<p>This relates to three distinct processes:</p> <ol style="list-style-type: none"> I. the application of technology, whether or not the firm is technology-based; II. R&D programs; and III. the innovation process within any firm, including new product development. <p>This category is not confined to high-tech companies, which would be classified as technology firms in the data source (see below).</p>
15	Resource utilization	<p>This addresses how (usually inadequate) resources are used, and in particular how they are leveraged. Allied topics include the examination of stakeholder interests and/or assets and how entrepreneurs leverage their stakeholders' expertise.</p>

Dynamics of growth and survival

No.	Subject title	Definition and comments
16	New venture formation	Anything analyzing the process leading to a new venture and the consequences of that process in the early years of a venture. This includes management LBOs (leveraged buyouts). It does not include analysis of statistics covering the dynamics of "births, deaths, growth, decline", which is part of Economic/statistical issues.
17	Growth issues	Anything touching the growth of firms, including leadership transitions, acquisitions and mergers, job creation results, growth stages etc. It does not include analysis of statistics covering the dynamics of "births, deaths, growth, decline", which is part of Economic/statistical aspects.
18	Survival, decline and terminations	Analysis of survival rates and decline as well as terminations of businesses. This includes barriers to progress or success. It does not include analysis of statistics covering the dynamics of "births, deaths, growth, decline", which is part of Economic/statistical aspects.

The wider community

19	Economic/statistical aspects	Statistical analysis relating to the economic impact of small business and entrepreneurship as well as analyses based on statistical data (as opposed to surveys or interviews).
20	Government role	Examination of the role of government through its programs - which usually includes (though not necessarily) analysis directed at policy development. This excludes tax measures, which are classified under functional issues.
21	Entrepreneurship development	The context for enterprise - cultural, regulatory, community and other influences. This includes the development of entrepreneurial expertise and/or an environment that encourages entrepreneurs (through government programming or incubators, for example) and incorporates concepts relating to economic development, as a context for entrepreneurship development.
22	Free trade	Anything to do with the FTA or NAFTA

No.	Cross-section	Definitions and comments
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Demographic differentiation

1	Women	Research on women alone or gender comparisons
2	Youth	Includes research on young entrepreneurs and on age comparisons.
3	Aboriginal	Self-evident
4	Family business	Covers family businesses and comparisons between family-owned and non-family-owned businesses
5	Francophones outside Quebec	Studies of Francophone entrepreneurs in the context of an Anglophone environment.
6	Ethnic entrepreneurs	Self-evident
7	Immigrant entrepreneurs	Self-evident

Control groups, pre-entrepreneurs and non-entrepreneurs

8	Underemployed	This covers the potential for entrepreneurial careers and the corresponding training implications among the unemployed, people with low incomes and people with disabilities.
9	Non-entrepreneurs	This falls into two distinct categories: <ul style="list-style-type: none"> ♦ research that uses non-entrepreneurs as a control group (for example, executives in large businesses or public vs private companies) for comparisons with entrepreneurs, and ♦ people contemplating entrepreneurship or candidates for a career change to entrepreneurship
10	Intrapreneurs	Managers in a large organization whose behaviour can be classified as entrepreneurial

Specific classes of business

11	Self-employment	Self-evident
12	Home-based businesses	This includes micro-businesses.
13	Rapidly growing firms	There is no definition of what constitutes rapid growth, so this is often just growing firms.

No.	Cross-section	Definitions and comments
14	Mid-market/threshold firms	Not always defined consistently, but these usually include firms with more than \$2 million in sales and/or 10 employees, up to 500 employees
15	Unincorporated	Studies that look at unincorporated businesses or that compare unincorporated and incorporated firms
16	Exporters	This focuses on firms that export or that do not export - or a comparison of the two. Many of these are accompanied by analyses of the exporting process, which is covered in functional issues (marketing).

Comparative studies

17	Size of business	Analysis that compares firms by their size, or focuses on a specific size of business.
18	Age of business	Analysis that compares firms by the length of time the firms have been in existence
19	Inter-regional	Studies that compare regions within Canada or all or part of Canada with all or part of other countries.
20	Inter-industry	Studies that compare industries.

Data sources

In analyzing the sources of data, there are situations where the source is a critical factor in the analysis and others where it is likely to be representative of a much broader universe. For example studies that focus on women or home-based businesses or rapidly growing firms are not applicable to other cross-sections of the community, but the characteristics of ethnic entrepreneurs in Nova Scotia will likely apply to ethnic entrepreneurs in other parts of the country, as will be the case with a study on manufacturing firms in Manitoba. It was therefore decided that, wherever the data source is mentioned in the abstract, that source would be noted in a separate category of the data base, by industry and region; the specific region or industry is not therefore a part of the cross-section analysis, except where they are an integral part of the analysis by reason of comparative studies (for example, a comparison of manufacturing firms in Canada and the US); in these cases, the study is classified as inter-regional, inter-industry or size of business in the cross-sections.

The data sources for the regions are organized as follows:

- ◆ Ontario
- ◆ Quebec
- ◆ Atlantic (with specific province, where possible)
- ◆ Prairies (with specific province, where possible)
- ◆ BC

- ◆ Other countries
- ◆ US
- ◆ Canada-US
- ◆ Canada-Other countries

When there is no entry, it means either that the data is gathered throughout Canada or the source of the data is not mentioned in the abstract. Papers written by people who do not live in Canada are assumed to be based on data from their own countries, unless otherwise specified. The categories for regional source are as follows:

In the data source category describing the industry from which the data is drawn, the following categories have been used:

- ◆ Manufacturing
- ◆ Technology firms
- ◆ Retail
- ◆ Service firms
- ◆ Tourism
- ◆ Primary
- ◆ Franchising

When there is no entry in this field, it means either that data was drawn from three or more industries or that the industry source is not apparent from the abstract. In the case of most of the broad categories, the specific sector is added where appropriate.

Results

A total of 1,848 pieces of research were identified. Of these, 312 research pieces were eliminated because they did not meet the content criteria or they were repeats or, sometimes, multiple duplicate entries. Of the remaining 1,536, all of which are included in the data base that is part of this report; another 221 did not meet the Canadian content requirements - mostly from the Journal of Small Business and Entrepreneurship and La Revue Internationale PME, both of which have a high proportion of articles written by Asians, Europeans or Africans about their own countries. It is desirable to keep these articles in the data base, if only to maintain a complete record of the only two Canadian journals, but they have not been used in the analysis. There are also a number of seminal works that have been retained simply because users might find them useful (for example, Schumpeter's or Cantillon's books and David Birch's first book on job creation), but which have also been excluded from the analysis. By excluding these pieces of research, there were 1,315 pieces in all that met our criteria and were included in the analysis.

The detailed tables with all the classification results appear in the appendix. The analysis that follows will review the highlights and draw the principal conclusions.

The most popular subject topics

As can be seen from Table 1, the four most popular areas of research are, in this order:

1. Functional issues
2. Characteristics and profiles
3. The role of government
4. Access to financing

It is probably more accurate, however, to say that financing in general is the most popular topic, since there is a strong element of finance in the functional issues. As was noted in the classification descriptions above, studies that relate to finance as an ongoing function - as opposed to access to financing - are classified as part of functional issues. This includes topics such as relationships with bankers, credit terms, management consequences of raising capital, financial modelling etc. On this basis, there are 247 pieces of research in the data bank that touch on finance in one or other of its manifestations, compared to 217 pieces of functional issues other than finance. This makes anything to do with finance and financing the most popular topic. For more details on this, see the section on Finance below.

The popularity of functional issues is not surprising since the field of entrepreneurship and small business has evolved out of a functional structure within universities (see later for a more detailed analysis of functional issues). A parallel indicator of a new field is the popularity of research into the characteristics of entrepreneurs and their enterprises, which was the second most popular pre-occupation. In the early stages of a new discipline, it is only natural to put a great deal of effort into profiling entrepreneurs and their enterprises in order to establish an initial understanding of the discipline. As the discipline matures, this is becoming a less common pre-occupation.

Finally, the role of government has received a lot of attention because a significant portion of

the research we have collected was funded or commissioned by government - usually (but not always) for the purposes of policy development. A large number of papers on the Small Business Loans Act, for example, were commissioned by the federal government in attempts to fine-tune the program - and these appear as both Access to financing and Government role.

Table 1

Number of times each subject appears as a topic in a research paper

Subject	Total no. on each topic	% of total
Theory of entrepreneurship		
Theory	88	7%
Entrepreneurship education		
Entrepreneurship education	102	8%
Counselling	12	1%
Aspects of the entrepreneur		
Attitudes	52	4%
Leadership	96	7%
Enterprise - entrepreneur		
Characteristics	209	16%
Networking and alliances	103	8%
Success factors	48	4%
Suppliers	30	2%
Aspects of the enterprise		
Access to financing	181	14%
Technology and innovation	129	10%
Strategy	66	5%
Functional issues	283	22%
Business performance	44	3%
Resource utilization	2	0%
Dynamics of growth and survival		
New venture formation	108	8%
Growth issues	75	6%
Survival, terminations, decline	28	2%
The wider community		
Economic/statistical aspects	142	11%
Government role	182	14%
Entrepreneurship development	130	10%
Free trade	31	2%
TOTAL RESEARCH PAPERS	1,315	100%

At the lower end of the scale, there is remarkably little research in Canada on resource utilization - how entrepreneurs leverage their resources or involve stakeholders in providing resources at reduced or no cost. As this is one of the critical elements in startups and the survival of young firms, it is a notable gap. There is also very little on counselling, although there is a great deal of work in the field, notably the formation of a national institute to govern the provision of counselling. There is a small and growing army throughout Canada of

individuals whose full-time job is counselling small businesses, often with little or no pedagogical or theoretical background.

In between these two extremes are a number of topics that have received a not insignificant amount of attention, but which can reasonably be described as topics that are at the forefront of issues that need to be urgently addressed. These include:

- ◆ Business performance, which can measure the impact of programs and pre-venture preparation. This would include benchmarking, for example, or the Performance Plus profiles recently installed on Strategis. The linkage between inputs and outputs is an important avenue for further research.
- ◆ Growth issues. Since it has become apparent that the engine of new jobs is not small business per se, but those small businesses that are growing - and often growing rapidly. These firms represent less than 10% of the total, but they account for the great majority of new jobs. The skills required in managing these firms are quite different from those required to manage more static businesses and there is a great lack of basic information on the entrepreneurs and their circumstances in these firms.
- ◆ Technology and innovation. This is related to growth issues, since technology and innovation are central to the success of growing firms. The appropriate utilization of technology - everything from accounting systems to financial analysis to CAD/CAM and e-commerce is changing the way successful firms do business today. And no growing firm can maintain its impetus without extensive use of these tools. While there have been some remarkable studies in this area in Canada (particularly in Francophone Canada), much more needs to be done.
- ◆ Survival, terminations and decline. At the other end of the spectrum, the decline and terminations of small firms represents a huge drain on the resources and energy of Canadian businesses. It is widely believed that this can be mitigated (if not reversed) through a better understanding of the process and the design of tools that can enable entrepreneurs to run their businesses better. Yet only 2% of the research pieces identified in Canada deal with this subject. It would be a fruitful topic for further research.
- ◆ Leadership, as defined in this study, means all aspects of behaviour of the CEO entrepreneur (as opposed to the demographic or other characteristics). While this subject has a large body of work attached to it, the environment is changing so rapidly that there is some question if all the past work is still relevant. In particular, there is an emerging field of cognitive analysis that may prove to be very helpful in understanding the entrepreneurial process per se. There are initiatives in this field under way in Canada today, but these need to be built upon and emphasized. Also, the format of leadership is undergoing rapid change as innovative smaller businesses start creating virtual organizations and extensive partnership or joint-venture structures, particularly in technology firms.

Functional issues

As might have been expected, the most popular aspects of functional issues (after finance) are Human Resources and Marketing, as is shown by Table 2. The fourth largest focus, organizational development, is an important field, covering the management of change and corporate structure, both of which are becoming increasingly vital if firms are to survive today's volatile conditions. The papers on the next most popular topic - tax - are heavily concentrated on the GST and Retail Sales Tax. There is very little on the impact of the tax regime on small

businesses and entrepreneurs, including the capital gains tax. Beyond these subjects, there is almost no significant focus, with all the remaining topics accounting for 2% or less of the papers addressing functional issues.

Table 2

Breakdown of sub-topics when functional issues were the topic in a paper

Detail of functional issues	Number of times mentioned	% of total
Finance	66	23%
Human Resources	62	21%
Marketing	40	14%
Organizational development	25	9%
Tax	15	5%
Just-in-time	8	3%
EDI/E-commerce	8	3%
Distribution	5	2%
Profit-sharing	4	1%
Quality	4	1%
R&D management	3	1%
Administration	3	1%
Location	2	1%
Advertising	2	1%
Insurance	2	1%
Employee share ownership	1	0%
Production	1	0%
Not specified	38	13%
TOTAL MENTIONS*	289	100%

* Note that six of the research documents covered more than one functional issue, so the total mentions exceeds the 283 documents that contained a functional issue.

Aspects that offer significant potential rewards for further, more in-depth research include:

- ◆ Electronic data interchange and e-commerce are both pragmatic topics that deserve more attention than they are getting, particularly in Anglophone Canada.
- ◆ Profit-sharing and employee share ownership. Many businesses today, especially those in technology firms, are relying heavily on stock ownership, stock options and profit-sharing to motivate their employees. There is some debate that Canadians are less interested in this approach than Americans, so there is an especially strong need for more research on the subject.
- ◆ Location. As the penetration of technology into offices continues apace, the issue of location will loom ever larger for all businesses, big and small. There is the added impact of how the North American Free Trade Area has affected or will affect the location of businesses.
- ◆ R&D management. The need to innovate is becoming a critical part of business survival.

This does not always require a formal R&D program, but the management of any form of research leading to innovation is becoming a central part of any entrepreneur's survival kit. This is tightly linked with the study of technology and innovation mentioned earlier.

Finance

As mentioned earlier, the most popular topic in functional issues is finance - taken, in this case, to mean issues revolving around the control of ongoing financial elements of the business. Table 3 below shows the specific focus when functional issues were explored relating to finance. Not surprisingly, the relationship with banks is predominant, reflecting Canadians' over-reliance on the banking system. There is remarkably little in the way of financial modelling, breakeven analysis, capital structure and financial ratios, all of which would benefit from greater attention.

Table 3

Detailed references where finance is mentioned as a functional issue

Aspect of finance	Number of times mentioned	% of total
Banks	17	24%
Accounting	4	6%
Loan guarantees	3	4%
Post-IPO	3	4%
Venture capital	1	1%
Valuation	1	1%
SBLA	1	1%
Modelling	1	1%
Capital structure	1	1%
FBDB (BDC)	1	1%
Breakeven analysis	1	1%
Working capital	1	1%
Not specified	35	50%
TOTAL MENTIONS*	70	100%

*Note that four of the research documents covered more than one aspect of finance, so the total mentions exceeds the 66 documents that contained a financial aspect of functional issues.

It is obvious from this analysis that research in Canada has been overwhelmingly aimed at access to financing, particularly for women (for whom it is the second most popular focus). While there are some indications that there is cause for concern, there is also widespread agreement that financing problems are often a reflection of other, more deeply ingrained, problems. Most successful entrepreneurs do not describe financing as a priority problem - usually because they have mastered the issues and, while financing might still be a problem, they have acquired the necessary expertise to deal with it. Often, the entrepreneurs expressing difficulty with access to financing would not have so much trouble if they had more

expertise in managing all the components of their businesses.

Table 4 shows, moreover, that the focus on access to financing is, again, overwhelmingly the banking institutions, followed by SBLA, which is also run by the banks. In other words, along with loan guarantees, one third of all research papers that addressed access to financing chose bank lending as the focus of their attention. This compares with about 10% on venture capital and its junior partner, the informal investor. It should be noted, however, that the research in Canada on the informal investor - or "angels" - has been ground-breaking and widely disseminated. This research has led to many initiatives attempting to match cash-short entrepreneurs with angels.

Table 4

Detailed references in the research focussing on access to financing

Aspect of financing	Number of times mentioned	% of total
Banks	34	19%
SBLA	20	11%
Venture capital	20	11%
Informal investors	18	10%
IPOs	6	3%
Loan guarantees	4	2%
Community lending	3	2%
Equity	3	2%
Microlending	2	1%
Not specified	71	39%
TOTAL PIECES	181	100%

All of this ignores the most common source of financing, however, for growing companies - money that entrepreneurs don't have to raise because they have found a way of leveraging their resources to minimize the need for cash. This was referred to earlier in resource utilization and it deserves much greater attention as it is potentially the most rewarding candidate to ameliorate the financing problem that claims so much of our attention.

In contrast to these issues, other aspects (such as micro-lending and community lending) have received scant attention to date. The principles on which initiatives in this area are based are far less understood than the principles of conventional financing, so they need more study. Canada has even been a world leader in some of these fields through efforts by organization such as Calmeadow, so the research community needs to direct more energy toward understanding the strengths and limitations of these approaches.

Cross-section analysis

As Table 5 shows, by far the greatest concentration of effort at cross-sectional analysis has gone into studying gender issues of entrepreneurship. While this is not surprising in view of the

enormous influx of women into the field, there is a clear bias in the orientation of the research, which has focussed primarily on their characteristics or profiles, access to financing and the role of government (see Table A2 for this detail). There are signs of an emerging interest in growth issues, but there is little in the way of gender-based leadership research, which may reveal more about how women behave in running their businesses (with the attendant potential for policy development, particularly in the field of entrepreneurship education and counselling). The same can be said of networking and alliances, because women gather information and innovate in ways that are different from men. There are strong and observable gender differences in these fields and they could profitably be studied in greater depth.

This is not the case in subjects like technology and innovation where gender differences are not strong, so it is not surprising that gender analysis is scarce in this field. The same can be said of gender analysis in strategy, for example, or suppliers.

In looking at the other cross-sections of the entrepreneurship and small business community, Table 5 shows that many studies have touched on the size of business, which is to be expected and is not remarkable. There is also a strong concentration on exporters, sometimes with a focus on NAFTA, but usually in the context of market development, particularly for Quebec-based researchers.

Self-employment has received considerable attention, but, in light of the explosive growth in self-employment in the past ten years, this is probably inadequate to develop a full understanding of the phenomenon. By contrast, the examination of home-based business has been very thorough in laying a solid foundation for this cross-section, even if the numbers are not as great.

Another variable commonly used is non-entrepreneurs/intrapreneurs. While intrapreneurship has received more attention outside Canada, it is an important field that could use more attention.

A sound foundation has also been laid in the study of youth entrepreneurship and family businesses, but there is room for more work. Youth entrepreneurship has soared in the face of uncertain prospects as employees, thereby creating a rich opportunity for greater research (as has been recognized by the Prime Minister's Office in creating a special task force on youth employment). There is a lot of work under way internationally in this area, most notably in the study of nascent entrepreneurs and this will add greatly to our understanding of all startups, but most particularly by young people.

Table 5

Distribution of the cross-sectional focusses in the research pieces that addressed a cross-section

Demographic differentiation	No. of papers including each cross-section	% of total
Women	104	27%
Youth	19	5%
Aboriginal	9	2%
Family business	20	5%
Francophones outside Quebec	6	2%
Ethnic entrepreneurs	10	3%
Immigrant entrepreneurs	13	3%
Control groups		
Underemployed	6	2%
Non-entrepreneurs	21	5%
Intrapreneurs	13	3%
Comparative studies		
Size of business	78	20%
Age of business	5	
Inter-regional	26	7%
Inter-industry	29	8%
Classes of business		
Self-employment	35	9%
Home-based business	25	6%
Rapidly growing firms	13	3%
Mid-market/threshold firms	4	1%
Unincorporated	3	1%
Exporters	64	17%
Total pieces with cross-sections	386	100%
Total pieces without cross-sections	929	

Beyond these fields, where there is a solid base of research, there are some areas where the foundation has yet to be laid:

- ◆ Rapidly growing businesses. Since these firms are the core of job creation, there is a powerful imperative to pursue greater research for policy development. The challenges, rewards and problems of these firms are unique, as are their leaders. The same can be said of mid-market or threshold firms, which are the seeds of the economy's future bedrocks of economic prosperity.
- ◆ Immigrant entrepreneurs. These entrepreneurs have been studied mainly in the context of government policy, but they have a much more powerful role in Canada, particularly outside the scope of the Immigrant Entrepreneurs program. There is a vigorous debate on

the source of new entrepreneurs in Canada, with many suggesting that immigrants represent a disproportionate share of new entrepreneurs. This is a fruitful area for further research, especially as the conditions in Canada are not replicated elsewhere.

- ◆ There is remarkably little in the way of research on various aspects of entrepreneurs and their enterprises as their firms age. Longitudinal studies have generally focussed on economic aspects of job creation etc - there is still very little on transitions of entrepreneurs and the management of evolution.

Conclusion

Entrepreneurship and small business is, in academic terms, still a very young field. It therefore suffers from the difficulties inherent in building a foundation of applicable knowledge. Although much progress has been made on this front, however, there is a significant list of areas that would benefit from greater attention by researchers.

The secondary purpose of this paper is to develop a dynamic data base of useful research that can be easily accessed. The data base on which all the above analysis is dependent has the potential to meet this need. It is suggested that:

- I. The data base be converted to HTML and put on the Internet so that researchers can access it. They could then:
 - A. review the classification system and propose changes where appropriate
 - B. review the entries for projects in which they were involved, to add absent abstracts, comment on classifications and
 - C. suggest other work that should be included
- II. The papers in process or contemplated have the potential to create a useful clearing ground for current research, raising the potential for co-operation and alliances. This would require some sort of discussion forum within the web site proposed in 1) above.
- III. The full papers behind the entries have not been collected, so it would be useful to develop a means of downloading them where possible. In some cases, this is already available (Statistics Canada, for example), but in most cases, this is not yet possible.
- IV. Since much of the academic research is not easily understood by non-academics, it would be useful to engage in a program of re-writing some of the more seminal papers - or their principal conclusions - in laymen's language.

Donald Rumball
March 31, 1999

APPENDIX

The four tables on the following pages contain the full details of all the analysis of the classification of the research documents. The salient points in them have already been highlighted in the Results section of this report. However, there are a few observations that will avoid misunderstanding for those who wish to study the results more closely:

- I. Table A1 contains:
 - A. Overall totals for:
 1. the number of times each subject was mentioned in a research document, and
 2. the number of times the subject was mentioned without any context related to one of the cross-sections (i.e. the analysis covered the entire entrepreneurship and small-business community.
 - B. Totals for the Tables A2-A3,
- II. In Tables A2-A4, the number of times any cross-section is mentioned is a function of the subject(s) with which it was associated in any one document. Thus, if women, for example, are mentioned in a study that focuses on new venture formation and characteristics, it appears twice in the tables in this appendix. This enables a view to be formed on the context in which each of the cross-sections have been examined.
- III. The last line of Tables A2-A4 is the number of times each cross-section appeared in a research document. This is not the same as the number of mentions (see 2) above), because it counts the cross-section once for each document, no matter how many subjects were broached in that document. This line is not, therefore, the sum of the previous lines in these tables.