



Council of Canadian Academies
Conseil des académies canadiennes

REPORT IN FOCUS

May 2009

Better Research for Better Business

Building leadership and management capacity in Canadian business is essential to ensuring that the country has the talent to sustain productivity and a high standard of living. These societal benefits rest not only on the development of the talent to lead business enterprises, but also on the advancement of research in business, and hence the development of research leaders.

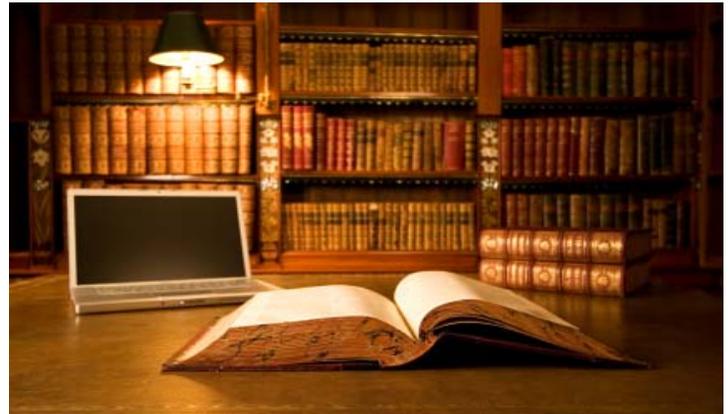
The Government of Canada's 2007 Budget acknowledged the important role of research in developing business and managerial capability by allocating an additional \$11 million per year to the Social Sciences and Humanities Research Council (SSHRC) targeted to research in management, business and finance.

In response to this targeted funding allocation, SSHRC has engaged in consultations with the research community, and several stakeholder groups, in order to develop a long-term strategy to support research, training, and knowledge mobilization in management, business, and finance. In November 2007, as part of this larger effort, SSHRC asked the Council of Canadian Academies (the Council) to assemble an expert panel to conduct an independent assessment of the strengths and weaknesses of management, business, and finance (MBF) research in Canada. The formal overarching charge to the Council was as follows:

What are the overall, identifiable, strengths and weaknesses of the university-based research community in the areas of management, business, and finance broadly defined, according to appropriate indicators?

To assist the panel in its task – and to help identify the specific types of information that would be useful to SSHRC in the development of its long-term strategy – several sub-questions were also posed regarding:

- the number and distribution of MBF researchers in Canada
- the level and type of collaborations engaged in by these researchers
- the international standing of Canadian MBF research
- the strengths and weaknesses in specified research areas
- the recommended balance between direct research funding and capacity building
- the identifiable opportunities where targeted funding could make a significant impact.



To address these questions, the Council appointed a nine-member expert panel that reflects the academic, geographic, and institutional diversity of the Canadian MBF community. The panel is made up of MBF researchers and administrators, and public sector and private sector representatives.

The Expert Panel on Management, Business, and Finance Research: David Zussman (Chair), Jarislowsky Chair in Public Sector Management, Graduate School of Public and International Affairs, University of Ottawa and Commissioner, Public Service Commission of Canada (Ottawa, ON); Peter Aucoin, C.M., FRSC, Eric Dennis Memorial Professor of Government and Political Science and Professor of Public Administration, Dalhousie University (Halifax, NS); Robert L. Brooks, Former Vice-Chairman, The Bank of Nova Scotia (Oakville, ON); Sheila A. Brown, Executive Director, Canadian Centre for Ethics in Public Affairs and Former President & Vice-Chancellor, Mount Saint Vincent University (Bedford, NS); Fred Gorbet, C.M., CIT Chair in Financial Services, Associate Director, Financial Services Program, Schulich School of Business, York University (Thornhill, ON); John H. McArthur, Dean Emeritus, Harvard Business School (Wayland, USA); Randall Morck, Stephen A. Jarislowsky Distinguished Chair in Finance and University Professor, University of Alberta (Edmonton, AB); Michael Ornstein, Director, Institute for Social Research, York University (Toronto, ON); Jean-Marie Toulouse, FRSC, O.Q., Professor, Department of Management, HEC Montréal (Mont-Royal, QC).



DEFINING MBF RESEARCH

The panel began by establishing a working definition of the field of management, business, and finance. The panel considered the traditional views of each of the three terms; SSHRC's MBF-specific goal and the federal government's original statement about the purpose of the targeted funding allocation in Budget 2007. In light of these considerations, the panel adopted the following as an overall context for defining and assessing MBF research in Canada:

Research within any area of management, business, and finance directed at improving the competitiveness and performance of Canadian business.

This scope is inclusive in the sense that it takes into account research into any area within the broad purview of MBF that affects the competitiveness and performance of Canadian business. Similarly, it includes research originating from fields not traditionally associated with MBF – e.g., sociology, psychology, history, medicine, science, and engineering – provided that the focus of the research aligns with the defining scope. Also, since research plays an integral role in capacity building and training, areas such as pedagogical research and the study of the application of research by business practitioners should also be considered relevant.

THE CANADIAN MBF "LANDSCAPE"

The panel identified 58 business schools/programs with a total of just over 2,900 full-time faculty. Of these, over 60 per cent are conducting research in the fields of general management, finance, accounting and marketing. This does not account for research faculty whose primary affiliations are in departments outside of business faculties or institutions (e.g., in sociology, psychology, history, or economics departments). In view of the breadth of distribution of the latter groups of individuals, it was not possible for the panel to identify and count them individually.

The panel was able to use the research output (i.e., peer-reviewed journal articles) by Canadian MBF researchers to identify in which departments/faculties MBF researchers are likely to be found. While 65 per cent of research output was generated by professors located in business schools/faculties, 35 per cent was distributed across a wide variety of faculties including education, engineering, medicine, social sciences and humanities, law, and science.

Further to this, it was observed that 93 per cent of research output was generated by universities while only seven per cent came from the private or public sectors. Of the research originating within universities, the field of management represents between 14 per cent and 31 per cent of the total number of papers produced at each school. The sub-fields of finance and organizational studies & human resources are the next two most prominent sub-fields, accounting for between 10 per cent to 20 per cent of the overall output of most schools. The remaining sub-fields vary substantially from school to school.

The Canadian MBF research landscape is composed primarily of researchers in business schools and faculties, although researchers who contribute to MBF fields are found in all university faculties and in a majority of departments.

COLLABORATIVE TRENDS IN CANADIAN MBF RESEARCH

The MBF research publication pool used by the panel in this study spanned the years 1996 to 2007 and included 8,993 Canadian articles in total. The panel used this pool to examine the level and types of collaborations by Canadian MBF researchers. More than 40 per cent of these papers were published collaboratively (i.e., by more than one author from more than one departmental and/or institutional affiliation) with international partnerships accounting for 45 per cent of the total collaborative effort.

At the national level, collaborations are most likely to occur among management departments and faculties (44 per cent of total collaborations) rather than with other disciplines (e.g., engineering, sciences, and medicine). Collaborations are observed primarily between universities; collaborations between universities and private sector or public sector entities comprise only 10 per cent of the total number of collaborative papers. In most cases, researchers work most frequently with colleagues located within close geographical proximity.

Canada also has a significant number of centres that foster collaborations between MBF researchers and relevant communities. Examples of such organizations include the knowledge transfer centres in Québec (e.g., CIRANO) and policy research institutes (e.g., IRPP). While some of these collaborations result in peer-reviewed publications, research resulting from these types of partnerships may instead appear in alternative media (e.g., popular press, colloquia proceedings, and corporate publications) and as such, is not reflected in the panel's analysis.

INTERNATIONAL PROFILE OF CANADIAN MBF RESEARCH

An assessment of how Canadian MBF research ranks in comparison with other countries requires more than a mere tally of the overall number of published papers; it requires an appraisal of the quality of these papers. While there remains significant debate over the best way to evaluate research quality, the use of citation-weighted impact analyses is a commonly used and effective tool for evaluating the impact of research globally.

Various international bodies use bibliometric methods as a means of ranking the research produced by institutions and/or countries. Thomson Reuters recently published a ranking for all papers published in Thomson Reuters-indexed journals of economics and business for the years 1998 to 2008. The results revealed that Canada ranks third both for the number of papers published and the total number of citations, but is eighth in terms of the average number of citations by paper.

In the *Financial Times* (FT) research rankings, eight Canadian schools appeared at least once on the FT's top 100 list for research for the years 2002 to 2008. For the past four years, six schools (University of Toronto, University of British Columbia, University of Alberta, University of Western Ontario, York University, and McGill University) have routinely placed in the top 50 and one school (University of Toronto) has ranked in or near the top 20 since 2005. To date, no Canadian school has ranked in the top 10.

An analysis of the journal pool identified by the panel showed (consistent with the Thomson Reuters result) that Canada ranked eighth in the world when measured according to the per paper average of the number of citations. If one considers, as a second ranking criterion, the weighted impact factors of the journals in which the articles are published, Canadian MBF research output ties for fourth place internationally. Canada ranks above the world average by both measures. These findings corroborate the survey responses from MBF researchers. Of those who responded, 38 per cent said that MBF research in their area was “among the best internationally”.

STRENGTHS & WEAKNESSES IN CANADIAN MBF RESEARCH

Based on the information reviewed, the panel was able to identify research sub-fields where Canada currently has some impact (based on international citation indices) – general management, information management, and organizational studies & human resources all ranked as “strengths” according to citation analyses and survey respondents. Conversely, accounting was identified as falling below average by both these measures.

In all of the areas identified as priorities in Canada's science & technology strategy – ICT, health sciences, environment, and energy/natural resources – Canada's MBF-related research in these fields also ranks above world average according to citation analyses and demonstrates a growing number of publications in each of the areas between the years 1996 to 2007.

Interviews conducted with potential end-users of MBF research were consistent in several messages. While most participants said that MBF research should have a direct application and transfer into the practitioner community, a very limited number indicated that they see evidence of this. With the exception of researchers in Québec, and a handful elsewhere, very little direct collaboration or knowledge transfer is believed to occur between Canadian MBF researchers and practitioners. The fundamental disconnect between researchers and practitioners has resulted in a general lack of both supply and demand between the two communities.

The interviewees identified several factors as ‘barriers’ to knowledge transfer between the two communities. These were:

- difficulties in communication: academic research is seen to be inaccessible, too technical and jargon-laden
- absence of incentives: research that is directly relevant to practice is most often not valued within tenure-based institutions
- misaligned timeframes: academic work takes a long time to get published and usually does not address medium/short term problems
- lack of accessibility: opportunities for the two communities to interact are scarce.

SUMMARY RESPONSES TO SUB-QUESTIONS

Overall Landscape:

- The Canadian MBF research landscape is composed primarily of researchers in business schools and faculties, although researchers who contribute to MBF fields are found in all university faculties and in a majority of departments.

Collaborative Trends:

- More than 40 per cent of the MBF research output from Canadian institutions is collaborative in nature and nearly 45 per cent of that work is produced via international collaborations.
- Joint publications at the national level occur most frequently between management departments.
- Collaborative work with the private or public sector represents less than 10 per cent of co-authored papers.

International Rankings:

- An evaluation of overall Canadian MBF research output, by various indicators, shows that Canada ranks above the world average. Canada also tends to rank above the world average in most (but not all) traditional MBF disciplines.

Strengths & Weaknesses:

- The panel was able to identify research fields where Canada currently has some impact (based on international citation indices).
- Neither the bibliometric results, nor the opinion-based approaches, provide evidence that an increased funding allocation in these disciplines — at least in the amount foreseen in Budget 2007 — would result in positioning Canada as a global leader.
- It is quite possible that targeted investments in specific researchers or research programs could result in a noticeable impact, but it is beyond the purview of this panel to identify such individuals or entities.
- The most significant identified weakness in Canadian MBF research is its lack of explicit relevance and usefulness as perceived by potential end-users of the work. There are few contacts between MBF researchers and business people in Canada, other than in Québec.
- This situation may be symptomatic of a perceived lack of relevance, but the paucity of direct contacts also reduces the likelihood that MBF researchers will be motivated to take up issues of relevance to potential users.

IDENTIFYING OPPORTUNITIES IN CANADIAN MBF RESEARCH

The final sub-question of the charge asked the panel: *Are there identifiable, outstanding opportunities where targeted support for management, business, and finance research can make a significant impact?* Based on the evidence provided in this report, and the collective experience and knowledge of the panelists, the panel concluded that the directed application of support toward more relevant MBF research would result in the most significant impact.

While not inconsiderable, \$11 million per year is not a large amount of money given the potential demands for support and the scale of overall research funding in Canada. The panel concluded that if these targeted funds are to make a strategic difference, they should be segregated from the base level of MBF funding and their application should be focused.

The fundamental disconnect between researchers and practitioners has resulted in a general lack of both supply and demand between the two communities.

To this end, the panel proposes the development and implementation of a novel funding program entitled BETToR – Business Excellence Through Transfer of Research. The objective of the program would be to improve the competitiveness and performance of Canadian business by supporting large, multi-year, collaborative projects with demonstrated potential for relevance and knowledge transfer.



The panel believes that there should be no explicit dollar thresholds; no constraints on the composition of the research group – e.g., geographical coverage – and no restriction on the disciplines that qualify. The program would facilitate cross-disciplinary collaboration with researchers supported by the other granting Councils (NSERC and CIHR) and in areas targeted by the S&T strategy.

BETTOr PROGRAM

The Objective:

- To encourage research within any area of management, business, and finance directed at improving the competitiveness and performance of Canadian business.

The Approach:

- This program is to support a targeted approach to the allocation of the \$11 million per year and would not affect the strategy for disbursement of the remaining funds traditionally specified for MBF research, nor would these focused funds reduce any of the allocations previously earmarked for other disciplines.
- Since research that is most relevant to issues of productivity and competitiveness requires significant, long-term funding commitments, the BETToR program would provide funding to support large, multi-year projects.

The Mechanism:

Proposals would undergo a two-step adjudication process.

- Step one would involve a peer review to establish the quality of the research proposal, the capacity of the team, and the proposal's consistency with the overall objective of the program.
- Step two would involve an evaluation by a different jury composed of both academics and practitioners. Proposals would then be considered in light of the assessments in the first step but also against a number of further criteria such as relevance, opportunity for knowledge transfer, level of collaboration and training opportunities.

Advisory Group:

- To assist SSHRC in the design of the specific parameters of the program, an advisory group should be appointed with broad representation from the research and business communities. Part of the mandate of the group would be to establish criteria for a five-year evaluation of the program.

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Science Advice in the Public Interest

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This Report in Focus was translated from English to French by Liza Beaulieu, certified translator En-Fr (Canada) in collaboration with Robert Némoy, B.A. specialization in translation. The French version was edited by Pierre Poisson, B.A. specialization in translation.

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