

JOURNALS, SCHOLARLY COMMUNICATION AND THE RAE: A CASE STUDY OF THE BUSINESS AND MANAGEMENT SECTOR

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Based upon part of the work undertaken for an MA in Library and Information Studies at Loughborough University in 2000

The research analysed almost 5500 journal articles submitted to the 1996 Research Assessment Exercise by business and management academics, in an attempt to gauge both the effect of the exercise on academic publishing within the field, and the academic community's response to it. It was a retrospective study using published research submitted during the period 1992-1996. Data supplied by HEFCE on journal submissions for the 1996 RAE were used to define the type of journals submitted to, and the breadth of journal titles within the subject area.

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Introduction

This article outlines research undertaken to explore and analyse journal⁽¹⁾ articles submitted to the Research Assessment Exercise (RAE) by academics in one Unit of Analysis (UoA) only, namely Business and Management Studies (BMS). It was a retrospective study using data submitted for the 1996 RAE, carried out on published research for the period 1992–1996. This work explored these journal submissions in an attempt to gauge both the effect of the RAE on academic publishing within the field, and the academic community's response to it.

The results appear to give little credence to the view that there are only a few core BMS journals worth considering for publication of research. Whilst it may be the case that there are indeed very few BMS journals perceived as being top quality, those actually being used for the dissemination of research output in the sector, as submitted for assessment, cover a very broad range both within and outside the discipline. This obviously impinges on the debates surrounding perception, quality, assessment and peer-review.

Data arising from the research regarding journal titles are subject to a confidentiality agreement and are not publicly available, so this article will concentrate on methodology, broad results and general conclusions. Results of the journal editor survey are also not discussed here, as they are being published elsewhere.

Aims and objectives

With the focus on journals as the route for scholarly dissemination, the main aim was to look at the pattern of submissions made by BMS academics during the 1996 RAE. This would identify the

breadth of journals within the subject area used by academics for disseminating their research output. A secondary aim was to explore existing ranking measures for BMS journals and to determine whether they could be used to develop a 'core' list of journals for the subject. The objectives were, therefore, as follows: -

- To analyse individual journal article submissions in order to identify the pattern of journal submissions made by BMS academics over the RAE period.
- To analyse the numbers of articles submitted by each institution within the UoA.
- Use Journal Citation Reports⁽²⁾ to identify the most cited journals in the sector, and check this list against other known major journal listings, e.g., ANBAR⁽³⁾, Starbuck⁽⁴⁾ and some Business Schools' internal rankings.
- Develop a list of core journals within the subject area.
- Once identified, survey the core UK journals, via editors identified from Ulrich's International Periodicals Directory⁽⁵⁾, to ascertain submission patterns over the period 1992-1996.
- Discuss the impact of the RAE on publishing in BMS.
- Feed the findings into the wider debates of policy, quality and review.

Background

Three distinct areas were key to the research: scholarly communication in the form of academic publishing, the RAE itself, and more specifically the Business and Management Studies (BMS) sector. Each of these will be considered in turn.

Background to academic journal publishing

Many problems associated with working with journal information stem from the massive growth of published literature and the extensive range of materials encompassed by the term. The exponential growth of journal titles can be illustrated by referring to Ulrich's. The edition for 2000 contains information on over 161,200 titles; whereas the first edition, published in 1932 contained information on just 6000 titles.

Scholars need to keep abreast of current

journal output in their own area. With increasing numbers of titles available, including now the proliferation of e-journals – see below -, and the inability of library budgets to sustain the rapidly rising subscription rates, journal collection management is a major problem facing both librarians and academics.

Recently journal subscriptions have increased far in excess of the general inflation rate. Blackwell's Annual Periodical Price Indices showed a percentage increase in 1996 of 13.1%, 7.4% in 1997 and 3.8% in 1998 (averages for all journals). Management journals specifically, incurred an average subscription rate increase of 27.2% over 1999, with the average cost of a management journal subscription being £548.73 in 2000 (over 40 selected journals⁽⁶⁾). Even though university libraries' expenditure on journals rose throughout this period, they cannot keep pace with such continued increases.

If it is accepted that academics engage in research in order to make a contribution to the body of knowledge (usually, but not always, within the discipline), they must select appropriate publication outlets that will enable them to achieve this goal. Due to the applied nature of the management field, making a significant impact may require a BMS academic to follow a different (or additional) selection strategy, to ensure that the work impacts on both theory and practice. This strategy (if using practitioner journals) would not gain much credence with an RAE panel – but may be an important one for managers. How likely a UK academic would be to select a journal which encourages high impact in terms of business practice, under RAE conditions, is difficult to judge.

Since these authors are subject to evaluation based on publication placement, there is also competition amongst journals to attract the highest quality submissions. In addition, less good quality articles may only achieve publication in second or third-tier journals. Again, it is down to perceptions of quality and the intended audience and purpose.

The RAE and the role of publications

At its most basic the RAE is a format for assessing the research output (in the form of

articles, reports, books, etc.) of all submitting university departments. Assessment of this output determines the funding allocated to those university departments for further commissioning of the process itself. There are currently 69 UoAs and this research was concerned solely with BMS(UoA 43). Individual university departments are graded by specialist panels within a five-point scale (see Appendix 1), which in turn determines the amount of funding received. The 1996 exercise was the fourth to be held and it now forms a regular event in the academic calendar and encompasses all higher education institutions wishing to receive funding. Since 1985, the results of this exercise have had a profound effect on the funding of university research, and the relationship between quality and quantitative indicators of research performance has been a constant source of debate. Methodologies have developed as each subsequent exercise saw changes in the data it was thought appropriate to collect.

Initial assessment was quantitative, based on the numbers of articles submitted per department. A report of the 1989 exercise concluded that: - "numerical totals of publications were not found to be helpful" and that "publication data was found to be unreliable, and where it was reliable, it said nothing about the quality of the output"⁽⁷⁾. Early exercises showed that methodologies for assessing published output were the main areas of difficulty for both academics and assessors alike. Problems centred on what to collect and what measurements to use. With a multitude of publication types forming a basis for potential assessment, many difficult decisions had to be made, i.e. weightings; sources of information about publications; whether to count totals for departments or each individual separately; and the length of period over which to count. Much discussion took place on the relative merits of bibliographic profiles, various measurements of publications and forms of citation analysis. Thus, quantitative assessment became further complicated by quality issues.

From 1992, developments need to be seen in the context of the broader move towards quality: by 1996 the RAE had moved completely away from quantity measures, towards that of informed peer-review. Following a consultation

exercise, 'research active' staff in each department or unit had to be put forward, with details of up to four publications per selected member of staff, but NOT the total number of publications for departmental staff. In addition, the number of research students and studentships, amounts of external research income, and statements of research strategy and future plans had to be submitted.

Despite the increased emphasis on quality of output and reputation, no guidance on how to determine what rated as a quality journal was officially given. Panel criteria gave no guidelines as to how journals would be judged, the only guidance exacted by the BMS panel was "there appeared to be no option other than attempting to assess whether a particular piece of work was of 'world-class' standard, even if it had been published in a more 'local' journal"⁽⁸⁾. This move to qualitative assessment placed great reliance on the professional judgement of the subject specialists on the panel, and presumably required that all work in unfamiliar journals should be read in order to be assessed.

By 1996, virtually all university public research funding would be determined by the RAE, with no money being received by any institution for UoAs graded as 1 (the lowest grade). In addition, pressure began to increase for institutions graded 2 also NOT to receive a share of research funding, although this has not yet happened.

Business and Management Studies (BMS)

One of the main areas of difficulty in defining lists of 'core' or relevant subject journals lies in defining the subject itself. What exactly are BMS? Since the focus of this study is the RAE, academic publishing and the BMS sector, it seems logical that the definition followed should be the one set by HEFCE for UoA 43 in the 1996 RAE. This states that UoA 43 covers: -

"the full range of single and multidisciplinary research which may be undertaken in Business and Management schools and departments, including human and organisation behaviour, accounting, banking and financial management, marketing, operations management, management sciences, information management, public sector management, business policy and strategic management, economics, international business and

management, small businesses, business history (except where its orientation is clearly towards history), arts management, industrial relations, management development and related areas. It also includes home economics, hospitality management and tourism."⁽⁹⁾

A key problem in accepting this definition is that many constituent areas can still be broadly defined, and there is no specific place for inter or cross-disciplinary work. The definition of the field also varies within and between institutions, depending on the purpose required, as well as over time. *Appendix 2* shows some of the fields of study encompassed by other definitions and some of the institutions whose own ranking lists were used in the research. Whilst the RAE column seems to be the largest, it is not inclusive. There are many important omissions such as: transport and logistics; supply chain management; innovation in management; quality, etc.

The study of management itself covers a huge area, from the management sciences to social and behavioural aspects, management psychology and specific areas of management, such as medical, sports and heritage management. In addition, most schools and departments of business and management have divided the field into convenient teaching areas, e.g. finance and strategy.

Such fragmentation and differentiation perhaps occurs because the intellectual territory has never been clearly demarcated. Subject boundaries are continually developing and changing and will continue to do so. BMS utilises knowledge and research methods drawn from several associated disciplines in the social sciences, sciences and humanities. Perhaps approaching BMS in isolation is no longer possible. Gibbons has argued that it is no longer a single discipline⁽¹⁰⁾ and recent recommendations by the British Academy of Management⁽¹¹⁾ also suggest a definite move to trans-disciplinarity.

Thus, it was important to recognise that there was no single accepted map of the subject area nor clearly defined boundaries. The assessors (HEFCE) have made an attempt in that the RAE UoAs use descriptions that should relate to disciplinary or subject boundary perceptions. It should therefore also follow that the journal list for each UoA, "provides publication based

mapping data to locate the UoA within the research community"⁽¹²⁾.

It should also be remembered that journal submissions made to the RAE are inclusive rather than exclusive, in that they include all journals to which research active staff submitted, within individual UoAs, but the disciplines and interests of those staff could and often did overlap with other disciplines (therefore, UoAs). For example, the British Medical Journal carries articles submitted across 29 UoAs.⁽¹³⁾

Thus, the RAE definitions remain open to interpretation by both assesseses and assessors, and perhaps the results of the analysis of the journal titles submitted in 1996 illustrate this fragmentation and confusion.

In summary, it could be said that: -
Research ↔ *Publications* ↔ *Evaluation* ↔ **CASH**

Much of this equation is dependent on deciding: **where** to place research output; **which** publications/journals to choose, and **how** they are rated and evaluated – little, if any, of which is made explicit, open or known. Reputation is very important, both for journals and academics and plays a vital role in these decisions.

The list below outlines the research output:

- a) Summarised data from HEFCE's 1996 database for UoA 43, showing institution rankings and journal submissions p.a.
- b) An analysis of further data from HEFCE on actual journal titles submitted for the exercise.
- c) The development listing of 'core' BMS journal titles, using a variety of available ranking sources.
- d) Qualitative data from a questionnaire survey of editors of the major UK journal titles.

Methodology

In order to define the type of journals submitted to, and the breadth of journal titles within the subject area (and possibly beyond), an analysis was made of data supplied by the Higher Education Funding Council for England (HEFCE) on journal submissions for the 1996 RAE. Exactly 100 submissions were received from 96 Business Schools or departments under UoA 43(BMS). Over 8000 pieces of cited work⁽¹⁴⁾, including 5494 journal articles, were submitted for assessment by the BMS panel. These articles form the basis of analysis in this study.

Permission was obtained from the HEFCE to use detailed data on actual journal titles as submitted for assessment by participating BMS institutions in 1996. No actual journal titles resulting from the analysis of the HEFCE data can be given, due to a confidentiality agreement signed between Loughborough University, the author and HEFCE.

The main objective of the work was to analyse journal submissions made for the 1996 RAE by BMS schools and departments. Data were obtained from the 1996 RAE database, publicly accessible from the HEFCE website (15). This information was downloaded, tabulated and summarised (see Table 1) in order to extract details of: -

- i. journal articles submitted for assessment by each institution within UoA 43 (BMS) for the years 1992, 1993, 1994 1995 and 1996 (first quarter only);
- ii. the numbers of research active staff submitted;
- iii. the resulting institutional grades.

No further details such as article and journal titles or authors were available on the website, so permission was sought from HEFCE to undertake more detailed analysis. With permission granted, a dataset of journal submissions was duly received which contained a listing of over 5500 journal titles. Analysis could only proceed on this list after a confidentiality agreement had been signed. There were many limitations and problems found whilst working with this dataset. Data was anonymised and no article titles were

given, so multiple authored submissions could not be identified. In addition, there were errors of consistency, spelling, title formats, and ISSN accuracy that would affect the accuracy of the resulting title list. These will not be discussed here.

Once the dataset had been checked, matched where possible, tidied and re-sorted into correct alphabetical order, systematic counting began. A summary table was produced showing the number of submissions to each journal title. This was further analysed to show groupings of submission numbers, i.e. number of journals with just one submission, two submissions, etc. See Table 2.

In addition, a questionnaire was sent to a selection of UK journal editors, a pilot analysis undertaken of a single institution's submissions, and a list of core journals was distilled from existing measures.

Results

Results from the first analysis of publicly available RAE data are shown in Table 1.

Conclusions

Conclusions relevant to this article are mainly in the area of the diversity of titles in the BMS subject area, its research and published output. If it is accepted that an academic's goal is to contribute to the body of knowledge, their journal selection strategy should help them

Table 1 Summary of HEFCE results and submission data

RAE Result	No of instits	Ave Cat. A Staff	Journal submissions in:-					TOTAL Articles Submitted	Ave journals Sub per institution
			1992	1993	1994	1995	1996		
1	10	9.03	11	16	41	58	20	146	14.60
2	29	12.67	94	136	197	216	60	703	24.24
3b	15	22.17	101	127	173	218	63	682	45.47
3a	16	25.25	165	207	258	296	101	1027	64.19
4	16	33.57	239	274	365	440	137	1455	90.94
5	7	50.96	143	177	256	275	67	918	131.14
5*	3	73.70	81	121	150	178	33	563	187.67
Totals	96		834	1058	1440	1681	481	5494	
% of total submissions			15.2	19.3	26.2	30.6	8.7	100%	

Results of the main analysis of journal titles are given in Table 2 overleaf. The most surprising finding was that BMS academics submitted to over 1200 different journal titles in the 1996 RAE.

Table 2 Summary of journal titles submitted to RAE 1996 (UoA 43).

5494 ARTICLES WERE SUBMITTED TO 1275 DIFFERENT JOURNALS.

646	(51%)	were single submissions to journals
200	(15.5%)	titles had 2 articles submitted
108	(8.5%)	titles had 3 articles submitted
62	(5%)	titles had 4 articles submitted
147	(11.5%)	titles had between 5-10 articles submitted
72	(5.5%)	titles had between 11-25 articles submitted
40	(3%)	titles had over 25 articles submitted.
1275	100%	

This summary makes the following four major points: -

- Over half the titles only had a single article submitted,
- 75% of titles had three or less articles submitted to them,
- 91.5% of journal titles (1163) had less than 10 submissions made to them
- Only 3% (40) of the 1275 titles had more than 25 articles submitted to them.

achieve this. Due to the applied nature of the management field, making a significant impact may require a BMS academic to follow a different (or additional) selection strategy, to ensure that the work impacts on both theory and practice. This strategy (if using practitioner journals) would not gain much credence with an RAE panel – but may be an important one for managers. How likely a UK academic would be to select a journal which encourages high impact in terms of business practice, under RAE conditions, is difficult to judge. Since these authors are subject to evaluation based on publication placement, there is also competition amongst journals to attract the highest quality submissions. In addition, less good quality articles may only achieve publication in second or third-tier journals. Again, it is down to perceptions of quality and the intended audience and purpose.

Research undertaken for this work has confirmed the fragmented nature of the BMS discipline. The diverse range of journals, to which BMS academics submitted for the 1996 RAE, illustrates this, and also underlines the problems inherent in defining the subject area itself. The analysis of journal titles submitted in 1996 to UoA 43, showed that 5494 articles were submitted to 1275 different titles. This illustrates the overlap between the specific business/management literature base, the related social sciences (psychology, sociology) and less related disciplines (geography,

medicine, ecology, etc.).

This diversity of titles raises certain questions. Why were some of these journals included in the submission for this UoA? Does it mean that the field is even more fragmented than was already thought or were departments struggling to find the 'RAE four' and so entered whatever there was in print? Indeed, some of the titles

appear to be far so removed from the discipline that it is hard, on the face of it, to justify their inclusion in this field. Examples of just three of these titles are given below, although it must be stressed that, without article titles, it was impossible to judge their relevance to business and management research.

That said, examples are; -

Journal of the Japanese Forestry Society

Aquaculture Research

International Journal of Geriatric Psychology

The BMS sector is not alone in having a long history of debates and studies on a hierarchy of 'top' journals. The difficulties of defining the scope of 'core' journals in such a broad subject area is tied to subject definition. With so many sub-areas of interest, many contributions may not be in the more obvious BMS journals.

This has important implications for the definition of this UoA, and possibly others.

Because of the nature of the field, its fragmentation and diversity, there are very real problems in the BMS sector. The debate over the nature of management research has policy implications for future assessment and looks set to continue. Many academics continue to argue that – "managers may be more impressed by publications in things they really read and the availability of excellent teachers, than serious academic pieces in scholarly outlets, read only by other academics"⁽¹⁷⁾. That, in a nutshell, is the dilemma facing BMS academics.

Recommendations

Recommendations arising from this research were directed to individual stakeholders and communities. Those directed at HEFCE and individual academic authors are not included here, only those of a more general nature are given.

- More guidance would be welcomed on 'core' subject journals by the UoAs (perhaps with a broader interdisciplinary category). This would need more work in the area of subject mapping.
- In order to be judged on research output, academics and organisations would benefit from improved advice and guidance on targeting this output, i.e. where and why.
- Problems over subject boundaries need to be addressed, e.g., the possible development of super categories within the RAE. The main issue here would be which, or whose, definitions should be used, both of the subject area and of the journals within it.
- Investigate ways of building in a check for possible or potential bias in publishing in-house or publishing the work of related institutions or academics. The questionnaire survey undertaken as part of the research found that 46 % of the journals surveyed were affiliated in some way to an organisation or institution, e.g. linked to the editor's institution, or to an organisation such as the British Academy of Management. These findings concur with Doyal and Arthurs conclusion that: -

"British academics ... publish a large proportion of their work in British based journals – frequently in those emanating from the same institution as the authors."⁽¹⁸⁾

At best this indicates parochialism, and perhaps an unwillingness to compete in the international market for ideas, at worst it could be open to question.

Next Steps

Further study, possible doctoral, is being considered. Using the methodology developed for the MA, a longitudinal study of the BMS UoA would be possible, allowing a comparison to be made on the journals included in both the 1996

and the 2001 RAEs, by mainly the same cohort of academics. The work could also be extended from an individual UoA (BMS) into other subject disciplines. It would be most interesting to see if other subject areas have similar broad submission trends and also to test the viability of 'mapping' subject boundaries via the journals, in which their research is published.

References

1. *Concise Oxford Dictionary*, 7th ed., 1982.
2. *Journal Citation Reports*. Social Science Citation Index. Philadelphia, PA: Institute for Scientific Information, 1998
3. **ANBAR Electronic Intelligence**. Editorial. *ANBAR Management Magazine*, 1997, 2.
4. *Starbuck 1999 Journal Impact Ratings*. (URL: <http://www.stern.nyu.edu/~wstarbuc/cites.html>), 2000.
5. *Ulrich's International Periodicals Directory*, 38th ed., 2000.
6. *Blackwells Periodical Price Index*. Library Association Record, 102 (6), 2000, p. 339.
7. **University Funding Council**. *Report on the 1989 RAE*, London, UFC, 1989, para 23.
8. **Cooper, C. & D. Otley**. The 1996 Research Assessment Exercise for business and management. *British Journal of Management*, 1998, 9, p.77.
9. **Higher Education Funding Council for England**, *Circular RAE96 3/94*, HEFCE, Bristol, November 1994.
10. **Gibbons, M.**, et al. The new production of knowledge: The dynamics of science and research in contemporary societies, Sage, 1994.
11. **Tranfield, D. & K. Starkey**. The nature, social organisation and promotion of management research: Towards policy. *British Journal of Management*, 1998, 9, pp. 341-353.
12. **Adams, J.**, et al. Benchmarking of the international standing of research in England: A consultancy study on bibliometric analysis, 1998, p.13.
13. *Ibid.*, p. 18.
14. **Cooper, C. & D. Otley**. The 1996 Research Assessment Exercise for business and management. *British Journal of Management*, 1998, 9, p.75.
15. **Higher Education Funding Council for England**, web site.

(URL: <http://www.hefce.ac.uk/Research/assessment>), 2000.

- 16. **Piercy, N.** Why it is fundamentally stupid for a business school to improve its RAE score. *European Journal of Marketing*, 2000, 34 (1), p.29.
- 17. **Doyal, J. & A. Arthurs.** Judging the quality of research in Business Schools: The UK as a case study. *Omega – International Journal of Management Science*, 1995, 23 (3), p. 259.
- 18. **Trieschmann, D. & N. Northcraft.** *The journal selection process: A survey of top business research journals*, 2000. Available at

<http://www.terry.uga.edu/~adennis/rankings/select.htm> , (uses the 13 American Association of Collegiate Schools of Business categories (AACSB)).

- 19. **Pierce, B. & G. Garven.** Publishing international business research: A survey of leading journals. *Journal of International Business Studies*, Spring 1995, 69-89.
- 20. *Financial Times Ranking of MBA Programmes* (by research publication). (URL: <http://www.mba.ft.com>), 2000. Gives categories for their Business School ranking exercise 1999/2000.

APPENDIX 1

The RAE Rating Scale

5*	Research quality that equates to attainable levels of international excellence in a majority of sub-areas of activity and attainable levels of national excellence in all others.
5	Research quality that equates to attainable levels of international excellence in some sub-areas of activity and to attainable levels of national excellence in virtually all others.
4	Research quality that equates to attainable levels of national excellence in virtually all sub-areas of activity, possibly showing some evidence of international excellence, or to international level in some and at least national level in a majority.
3a	Research quality that equates to attainable levels of national excellence in a substantial majority of the sub-areas of activity, or to international level in some and to national level in others together comprising a majority.
3b	Research quality that equates to attainable levels of national excellence in the majority of sub-areas of activity.
2	Research quality that equates to attainable levels of national excellence in up to half the sub-areas of activity.
1	Research quality that equates to attainable levels of national excellence in none, or virtually none, of the sub-areas of activity.

APPENDIX 2 Examples of categories used within the subject domain

CATEGORIES FROM RANKINGS USED IN STUDY				INTERNAL LISTS			NOT USED IN STUDY		
RAE Definition UoA 43	ANBAR rankings	Starbuck rankings (US)	Journal Citation Repts (SSCI)	BMS Dept 1	Trieschmann's ranking 99/2000	Pierce & Garven's categories 1995 (19)	UK FT ranking categories 1998/99 (20)		
Human & Org Behaviour	Accounting & Finance	Business and Management	Business	Accounting/Auditing	Accounting	Business Policy	Accounting		
Accounting	Business & Economics	Can also include:-	Business/ Finance	Banking	Corporate Strategy	Finance	Economics		
Banking & Financial Mgt	General Management	Economics	Economics	Finance & Investment	Business Policy	Management Info Systems	Entrepreneurship		
Marketing	Hospitality & Tourism	Psychology	Industrial & Labor Rel's	Economics	Business & Society	Accounting	Finance		
Ops Mgt	Human Resource Mgt	Sociology	Management	Human resource Management	Economics	Marketing	General Mgt & Strategy		
Mgt Sciences	Information Mgt & Tech			Insurance	Finance	Management Science	Human Resource Management		
Information Management	Marketing & Distribution			Marketing, Advertising & Sales	Human Resource Management	Organisational Behaviour	International Business		
Public Sector Management	Ops & Production Mgt			General Management	Insurance	Interdisciplinary	Marketing		
Business Policy	Quality			Management Science & Info Systems	International Business		Operations		
Strategic Mgt				Public Administration	Management/ Org Behaviour		Organisational Behaviour		
Economics				Production & Materials Handling	Marketing				
Int'l Business & Mgt			Special Interests	Management Info	Systems				
Small Businesses					Management Science				
Business History					Ops Research				
Arts Mgt					Production/ Operations Mgt				
Industrial Relations				Real Estate					
Management Development									
Hospitality Mgt									
Tourism									