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## The Impact of Non-Serial Publications on Research in Accounting and Finance

This study examines the role of books and official publications in accounting and finance research. From an analysis of thirteen leading journals for the year 1987-8 we report on the characteristics of such non-serial materials used by authors to support their research. We find that the accounting discipline in particular has become more open to influence from other disciplines. The individual perspectives of these thirteen journals can be partially revealed by their use of non-serial materials. Using cluster analysis we examine inter-journal variations in the disciplinary pattern of book citations and the distribution of citations to official bodies. Several relatively homogeneous groupings are identified.

**Key words:** Accounting; Journals; Publications.

The purpose of this study is to examine the impact of non-serial publications on accounting and finance research. These two disciplines are considered jointly due to the significant overlap between the two areas (e.g., capital market theory) and their close professional links. In particular, we examine books and the publications of official bodies such as the Securities and Exchange Commission (SEC), Financial Accounting Standards Board (FASB) and Institute of Chartered Accountants in England and Wales (ICAEW). This is an issue which prior studies have failed to address.

Studies in this area have measured (using citation analysis) the impact of journals, individuals, articles, departments and other disciplines on accounting research (see McRae, 1974; Dyckman and Zeff, 1984; Brown and Gardner, 1985a, 1985b; Brown, Gardner and Vasarhelyi, 1987; Beattie and Ryan, 1989). Cox, Hamelman and Wilcox (1976) used citation analysis in conjunction with multidimensional scaling and cluster analysis to examine the relational characteristics of the business literature.<sup>1</sup> However, with the exception of Beattie and Ryan (1989), these studies have analysed only citations to articles in other journals; the impact of non-serial publications has been specifically excluded.

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<sup>1</sup> Of the nineteen business journals studied by Cox *et al.* (1976) only the *Journal of Finance* is common to this study's data set

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We argue that non-serial publications serve specific and significant functions in the research activity. Books, while they may present original research, are more commonly used in one of two ways. First, they can act as sources for theories or analytical techniques borrowed from other disciplines and applied to the accounting or finance issue addressed. Second, they can represent the consolidation of a particular theoretical perspective within the discipline.

Given that accounting and finance are activities subject to regulation by both public and private bodies, measuring the influence of such bodies on academic research is a prime concern. Conventionally, a significant gap is perceived to exist between research and practice (Zeff and Hofstedt, 1974; Baxter, 1988).

### THE ROLE OF BOOK PUBLICATIONS IN RESEARCH

The overall importance of books in the social sciences is demonstrated in a study by Small (1975) who used citation analysis to map the speciality structure of these disciplines. A by-product of this study was a listing of the twenty-six most frequently cited documents during the period 1972-4. All but three of these items were books.

We argue that books cited within the journal research literature fulfil differing roles. Books are an important vehicle for the publication of original research in the arts and social sciences (Cole and Cole, 1967, p. 378) which is not generally the case in the natural sciences. However, this practice varies between disciplines. Such publication is common in philosophy, for example, but is relatively uncommon in accounting and finance. In addition, it has been shown (McRae, 1974) that the accounting research literature is relatively 'open' to influence from other disciplines. This interdisciplinary borrowing relates both to theories and analytical methods. An analysis of book citations classified by discipline can reveal the extent and nature of such interdisciplinary borrowings. Inter-journal variations are examined and the results are compared with previous studies in order to identify changes over time.

In many of the social science disciplines the publication of a book is indicative of the fact that a theory group within a discipline has reached an advanced stage of development (Mullins, 1973). Mullins offers a theoretical model for the development of social science disciplines which combines Kuhn's (1970) notion of paradigm revolution with Price's (1963) concept of the 'invisible college'.

Mullins (1973) identified four stages of 'theory group' development, each stage being marked by (empirically demonstrable) social and intellectual characteristics. These stages are (a) normal, (b) network, (c) cluster and (d) speciality. It is during the cluster period that secondary materials such as readers and collections of essays begin to appear. This cannot occur earlier as insufficient published work will exist to make it possible. It is also during this stage that the parent discipline's reaction to the new theory becomes evident. The new theory can either be accepted as an important new perspective on the issues addressed by the discipline, or it can be rejected as foolish or dangerous.

In cases where a theory group survives to reach the final stage, a process of routinization occurs as textbooks and further consolidating secondary works are written in order to maintain the identity of the group's theoretical perspective.

Not only will citations to accounting and finance books reveal those theories which have reached either the cluster or speciality stage, but an analysis of critical compared to non-critical citations will indicate whether the theory has gained acceptance by the parent discipline.

## THE ROLE OF PROFESSIONAL AND GOVERNMENTAL PUBLICATIONS IN RESEARCH

The dominant view, most recently expressed by Baxter (1988), is that a wide gap has emerged between research and practice in accounting and finance. Others have challenged this view. Hopwood (1983) believes there to be a growing interest in, and utilization of, research by the practical accounting domain. In his view this has arisen from significant emergent pressures on the institutions of the profession (e.g., FASB) to account for accounting. Research represents an externally validated form of knowledge. As such it can fulfil a strategic role by providing a legitimate and authoritative basis for the pronouncements of these regulatory agencies.

One side of this presumed gap was examined by Dyckman and Zeff (1984, pp. 256-9) who looked at the relative impact of three specific accounting journals *on* professional deliberations. They examined citations in FASB Discussion Memoranda to articles appearing in these three journals, although their data do not permit an assessment of the relative impact of journals compared with other publications.

In this paper we present evidence from the other side of the gap on the impact *of* professional and governmental bodies on research. Specifically, to what extent has the research community responded to the growing demand for accounting research suggested by Hopwood (1983)? We measure their impact on accounting and finance research as a whole and also identify those research journals which have the closest relationship with practice.

## METHODS

In this study we analysed the citations from all items (except book reviews and obituaries) which appeared in thirteen accounting and finance journals over the one-year period: July 1987 to June 1988 inclusive. This period represented the most recent year for which complete issues of the journals were available at the time of the study.

### *Citation Analysis*

The norms of research require authors to acknowledge, by way of citation, the materials they have used to support their research. This is the rationale for using citation rates as a quantitative measure of the 'impact' or 'influence' which publications have on a discipline. These terms are used in preference to 'quality' or

'importance' to acknowledge the possible effects of sociological factors on citation practices. Brown and Gardner (1985b) provide a critical discussion of the uses and limitations of this type of analysis.

*Journals Selected*

The following journals were selected:

<i>Abacus</i>	(Ab)
<i>Accounting and Business Research</i>	(ABR)
<i>Accounting, Organizations and Society</i>	(AOS)
<i>Accounting Review</i>	(AR)
<i>British Accounting Review</i>	(BAR)
<i>Financial Accountability and Management</i>	(FAM)
<i>Journal of Accounting and Economics</i>	(JAE)
<i>Journal of Accounting Research</i>	(JAR)
<i>Journal of Business Finance and Accounting</i>	(JBFA)
<i>Journal of Financial and Quantitative Analysis</i>	(JFQA)
<i>Journal of Financial Economics</i>	(JFE)
<i>Journal of Money Credit and Banking</i>	(JMCB)
<i>Journal of Finance</i>	(JOF)

This list incorporates the top journals in accounting and finance identified by Brown and Gardner (1985b) and Niemi (1987). All issues of these journals published within the twelve-month period studied were analysed, including the 1987 JAR Supplement and Volume 20 of JFE (a special volume covering the symposium on the distribution of power among corporate managers, shareholders and directors).<sup>2</sup>

*Database Description*

These journals generated a pool of 11,284 cited items. Full bibliographic details of those items representing books and the publications of relevant official bodies were extracted into our database. The official bodies included are listed in the appendix under two categories: (a) publications of, or sponsored by, professional accounting bodies, and (b) government and federal publications including those of the national and federal banks.

Books were further coded into foundation disciplines using the classification system adopted by Brown *et al.* (1987):

<i>Classification</i>	<i>Code</i>
Accounting	ACC
Economics and finance	ECFN
Engineering and communication	ENG
Law	LAW

<sup>2</sup> The inclusion of these special issues is based on the view that the content of such issues is consistent with the journal's overall focus.

Management	MGT
Mathematics/decision science/game theory	MATH
Psychology	PSY
Sociology/political science	SOCPHIL
Statistics	STAT
Mixture	MIX

In applying this classificatory system we adopted the following additional operational rules:

<i>Area</i>	<i>Code</i>
tax policy, political economy, banks	ECFN
social psychology	PSY
philosophy, politics	SOCPHIL
econometrics, experimental design	STAT
tax, history, education	MIX

Two independent researchers coded all books contained in the database and both sets of codes were then compared. In the few cases where there was disagreement the issue was decided by recourse to the American Library of Congress classification scheme.

## RESULTS

### *Books*

The database for the year of study contained 2,022 book citations, representing 17.9 per cent of all cited items. Table 1 (columns 1-3) shows the relevant totals and percentages for each journal. There exists a wide spread in the percentage of book citations: 38.5 per cent for AOS down to 6.4 per cent for JFE. One explanation for this large variation is that the journals with a high percentage of book citations draw more heavily on those disciplines where books are an important vehicle for the publication of original research. This issue is investigated below.

The first two columns of Table 2 summarize the classification of books by discipline. As would be expected, the economics/finance and accounting categories rank highest, although less than 50 per cent of all books fall within these categories. Thus there is evidence of interdisciplinary borrowing, especially from sociology (19.7 per cent), statistics (12.3 per cent) and management (11.1 per cent).

To identify whether there have been significant changes in interdisciplinary influence over time, these results were compared with those of McRae (1974). McRae analysed the cross-journal citations only in Ab, AR and JAR over the period January 1968 to December 1969. Classifying them into broadly similar categories to those used in this study, accounting, business and economics (the parent disciplines) captured 91.2 per cent of all citations. In this study accounting, economics/finance and management capture only 58.0 per cent of cited items, with the remaining 42.0 per cent coming from other disciplines. Of course it must be recognized that

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TABLE 1

SERIAL PUBLICATIONS AS A PERCENTAGE OF TOTAL CITATIONS  
(ORDER RANKED ON % BOOK CITATIONS)

Journal	Total no. of citations	Percentage book citations	Percentage citations to professional accounting bodies	Percentage citations to government bodies
AOS	1,822	38.5	1.2	1.0
BAR	391	28.1	9.2	1.0
Ab	504	26.4	6.5	0.8
ABR	856	22.0	9.1	1.3
JMCB	863	17.5	0.0	7.2
AR	1,116	16.1	6.9	1.5
JBFA	995	13.1	3.5	1.1
FAM	424	12.5	3.1	6.8
JAE	280	12.5	2.5	4.6
JAR	530	10.2	1.3	1.9
JFQA	636	9.3	0.0	1.3
JOF	1,836	8.8	0.0	1.9
JFE	1,031	6.4	0.0	2.2
All journals	11,284	17.9	2.7	2.2

TABLE 2

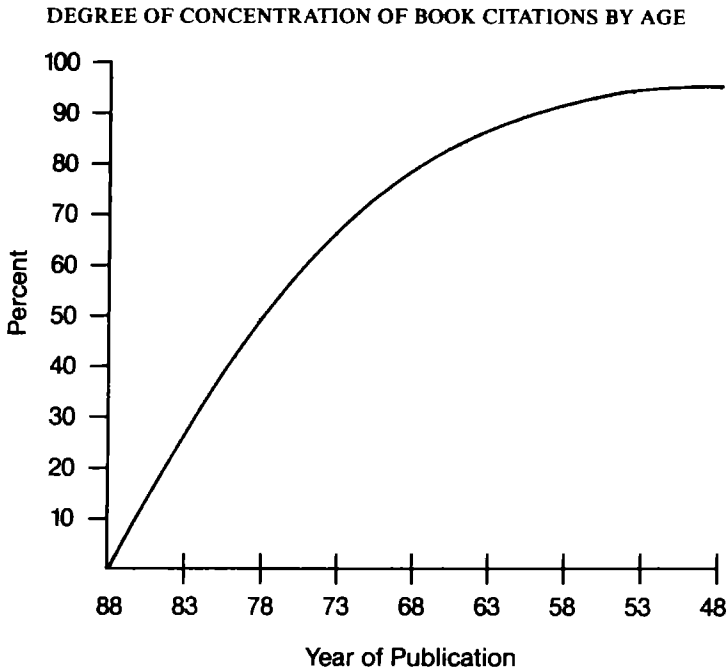
CLASSIFICATION BY DISCIPLINE

Discipline	Percentage of books	Percentage of articles in Ab, AR and JAR (derived from Brown <i>et al.</i> 1987)
Economics and finance	26.3	15.0
Accounting	20.6	34.7
Sociology/political science	19.7	3.8
Statistics	12.3	4.2
Management	11.1	5.1
Psychology	4.6	16.7
Mixture	3.6	9.8
Mathematics/decision science/game theory	1.6	7.4
Law	0.2	2.0
Engineering/communication	0.0	1.3
	100.0	100.0

the disciplinary pattern of citations to books (this study) and journals (McRae's study) may vary significantly, not least because of the varying propensities of disciplines to publish original research in books rather than journals. In addition, this study is based on a far wider range of journals.

The more recent study by Brown *et al.* (1987) analysed the foundation discipline of *articles* appearing in AOS, AR and JAR over the period 1976-84. A simple

FIGURE 1



average for the three journals derived from statistics reported by Brown *et al.* (1987) is given in the final column of Table 2: 54.8 per cent of articles fall within the accounting, economics/finance and management disciplines. While the results of the three studies are only roughly comparable, there does seem to be some indication that the accounting and finance disciplines are becoming more open to influence from other disciplines since McRae's (1974) study was conducted.

Figure 1 shows the degree of concentration of book citations by age. It is clear from this that books up to twenty years old are commonly cited, that is, the concentration curve is approximately linear up to this point.

Table 3 provides a listing of all those books (61 in total) which have received four or more citations during the year under study.<sup>3</sup> The final six columns give the disciplinary classification of these books. This list is compiled on the basis of the number of unique citing sources; thus if, say, two or more contributions to an edited volume are cited by the same source item, this is counted as one citation only. Different editions of the same book are counted together, even in cases where there has been some slight change in the composition of joint authors or editors.

<sup>3</sup> It was possible that the inclusion of the special issues of JAR and JFE could have biased our findings with respect to *individual* books. We excluded these special issues and found no significant impact on the composition of Table 3.

TABLE 3  
MOST CITED BOOKS

Overall rank	Author(s)	Title	Publisher	Year(s)	Number of citations	Rank within foundation discipline						
						ACC	ECFN	STAT	SOC	PHIL	MGT	PSY
1	Watts, R. L. and Zimmerman, J. L.	<i>Positive Accounting Theory</i>	Prentice-Hall	1986	24							1
2	Foster, G	<i>Financial Statements Analysis</i>	Prentice-Hall	1978 & 86	15							2
3=	Horngren, C. T. and Foster, G	<i>Cost Accounting: A Managerial Emphasis</i>	Prentice-Hall	1977/82/87	11							3
3=	Siegel, S.	<i>Nonparametric Statistics for the Behavioural Sciences</i>	McGraw-Hill	1956	11							1
4=	Beaver, W. H.	<i>Financial Reporting An Accounting Revolution</i>	Prentice-Hall	1981	10							4
4=	Jensen, M. C	<i>Studies in the Theory of Capital Markets</i>	Praeger	1972	10						1	
5=	Chambers, R. J.	<i>Accounting, Evaluation and Economic Behavior</i>	Prentice-Hall	1966	8							5
5=	Judge, G., Griffiths, W., Hill, R. and Lee, T	<i>The Theory and Practice of Econometrics</i>	Wiley	1980 & 85	8							2=
5=	Theil, H.	<i>Principles of Econometrics</i>	Wiley	1971	8							2=
5=	Van Horne, J. C.	<i>Financial Management and Policy</i>	Prentice-Hall	68/76/83/86	8						2	
6=	Burrell, G. and Morgan, G	<i>Sociological Paradigms and Organisational Analysis</i>	Heinemann	1979	7							1
6=	Cox, J. C. and Rubinstein, M.	<i>Options Markets</i>	Prentice-Hall	1985	7							3=
6=	Maddala, G. S.	<i>Econometrics</i>	McGraw-Hill	1977	7							3
6=	McCall, J. J	<i>The Economics of Information and Uncertainty</i>	University of Chicago Press	1982 & 84	7							3=
7=	Berte, A. A. and Means, G. C.	<i>The Modern Corporation and Private Property</i>	Macmillan/CCH	1932	6							4=
7=	Box, G. E. P., and Jenkins, G. M.	<i>Time Series Analysis: Forecasting and Control</i>	Holden-Day	1970 & 76	6							4=
7=	Bresley, R. and Myers, S	<i>Principles of Corporate Finance</i>	McGraw-Hill	1984	6							4=
7=	Cyert, R. M. and March, J. G	<i>A Behavioral Theory of the Firm</i>	Prentice-Hall	1963	6							4=
7=	Edwards, E. O. and Bell, P. W.	<i>The Theory and Measurement of Business Income</i>	University of California Press	1961	6							6=
7=	Fama, E. F.	<i>Foundations of Finance</i>	Basic Books	1976	6							4=



TABLE 3 (cont'd)

Overall rank	Author(s)	Title	Publisher	Year(s)	Number of citations	Rank within foundation discipline						
						ACC	ECFN	STAT	SOC	PHIL	MGT	PSY
7=	Fama, E. F. and Miller, M.	<i>The Theory of Finance</i>	Dryden Press/ Holt Rinehart & Winston	1972	6		4=					
7=	Johnston, J.	<i>Econometric Methods</i>	McGraw-Hill	1972 & 84	6		4=					
7=	Kuhn, T. S.	<i>The Structure of Scientific Revolutions</i>	University of Chicago Press	1962 & 70	6					2		
7=	Libby, R.	<i>Accounting and Human Information Processing: Theory and Applications</i>	Prentice-Hall	1981	6		6=					
7=	Maddala, G. S.	<i>Limited-Dependent and Qualitative Variables in Econometrics</i>	Cambridge University Press	1983	6			4=				
7=	Williamson, O. E.	<i>Markets and Hierarchies: Analysis and Antitrust Implications</i>	University Press Free Press	1975	6		4=					
8=	Altman, E. I. and Subrahmanyam, M. S.	<i>Recent Advances in Corporate Finance</i>	Irwin	1985	5		5=					
8=	Hopwood, A. G. and Tomkins, C. R.	<i>Issues in Public Sector Accounting</i>	Philip Allan	1984	5		7=					
8=	Mood, A., Graybill, F. A. and Boes, D. C.	<i>Introduction to the Theory of Statistics</i>	McGraw-Hill	1974	5			5=				
8=	Nie, N. H. et al /SPSSX	<i>SPSS/SPSSX User's Guide</i>	McGraw-Hill	1975, 83/85	5			5=				
8=	Sharpe, W. and Cootner, C.	<i>Financial Economics: Essays in Honor of Paul Cootner</i>	Prentice-Hall	1982	5		5=					
8=	Tinker, A. M.	<i>Paper Prophets Social Critique of Accounting</i>	Praeger/Holt, Rinehart & Winston	1985	5		7=					
8=	Wildavsky, A.	<i>Budgeting: A Comparative Theory of Budgetary Processes</i>	Little, Brown	1975	5		7=					
8=	Williamson, O. E.	<i>The Economics of Discretionary Behavior: Managerial Objectives in a Theory of the Firm</i>	Prentice-Hall	1964	5		5=					
9=	Barnea, A., Haugen, R. and Senbet, L.	<i>Agency Problems and Financial Contracting</i>	Prentice-Hall	1985	4		6=					
9=	Belsley, D. A., Kuh, E. and Welsch, R. E.	<i>Regression Diagnostics: Identifying Influential Data and Sources of Collinearity</i>	Wiley	1980	4					6=		
9=	Braverman, H.	<i>Labor and Monopoly Capital</i>	Monthly Review Press	1974	4		6=					
9=	Chandler, A. D.	<i>Strategy and Structure: Chapters in the History of the Industrial Enterprise</i>	MIT Press	1962	4						1=	
9=	Copeland, T. E. and Weston, J. F.	<i>Financial Theory and Corporate Policy</i>	Addison-Wesley	1983	4		6=					

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9=	Downs, A.	<i>An Economic Theory of Democracy</i>	Harper & Row	1957	4	6=	
9=	Edwards, R.	<i>Contested Terrain: The Transformation of the Workplace in the Twentieth Century</i>	Basic Books/Heinemann	1979	4	3=	
9=	Foucault, M.	<i>Discipline and Punish. The Birth of the Prison</i>	Allen Lane/Vintage	1977 & 79	4	3=	
9=	Friedman, B.	<i>Corporate Capital Structures in the United States</i>	University of Chicago Press	1985	4	6=	
9=	Friend, I. and Bickler, J. L.	<i>Risk and Return in Finance, Vol. 1</i>	Ballinger	1977	4	6=	
9=	Gaffikin, M. J. R.	<i>Contemporary Accounting Thought: Essays in Honor of R. J. Chambers</i>	Prentice-Hall	1984 & 86	4	8=	
9=	Garfinkel, H.	<i>Studies in Ethnomethodology</i>	Prentice-Hall	1967	4	3=	
9=	Giddens, A.	<i>Central Problems in Social Theory</i>	University of California Press/Macmillan	1979	4	3=	
9=	Hollander, M and Wolfe, D. A.	<i>Nonparametric Statistical Methods</i>	Wiley	1973	4	6=	
9=	Kahneman, D., Slovic, P. and Tversky, A.	<i>Judgement Under Uncertainty: Heuristics and Biases</i>	Cambridge University Press	1982	4		1
9=	Keynes, J. M.	<i>The General Theory of Employment, Interest and Money</i>	Macmillan/Harcourt, Braec, Jovanovich	1936 & 64	4	6=	
9=	Kmenta, J.	<i>Elements of Econometrics</i>	Macmillan	1971 & 86	4	6=	
9=	March, J. G. and Simon, H. A.	<i>Organisations</i>	Wiley	1958	4		1=
9=	Mosteller, F. and Tukey, J.	<i>Data Analysis and Regression</i>	Addison-Wesley	1977	4	6=	
9=	Netter, J., Wasserman, W. (and Kutner, M.)	<i>Applied Linear Statistical Models</i>	Irwin	1974/83/85	4	6=	
9=	Nobes, C. W. and Parker, R. H.	<i>Comparative International Accounting</i>	Philip Allan/Irwin	1981 & 85	4	8=	
9=	Pfeffer, J. and Salancik, G. R.	<i>The External Control of Organizations</i>	Harper & Row	1978	4		1=
9=	Pollard, S.	<i>The Genesis of Modern Management</i>	Edward Arnold/Harvard University Press	1965	4		1=
9=	Pratt, J. W. and Zechhauser, R.	<i>Principals and Agents: The Structure of Business Organizations in Action</i>	Harvard Business School Press	1985	4	6=	
9=	Thompson, J. D.	<i>Free Banking in Britain</i>	McGraw-Hill	1967	4		1=
9=	White, L. H.		Cambridge University Press	1984	4	6=	
9=	Zeff, S. A.	<i>Forging Accounting Principles in Five Countries</i>	University Press of Stipes	1972	4	8=	

Apart from ACC and ECFN books, this list is dominated by STAT books, indicating the methodological importance of statistics to the modern accounting and finance disciplines. This finding is consistent with Small's (1975) study of the social science discipline as a whole.

During 1987/88 the book which has had the most impact on the literature is Watts and Zimmerman's *Positive Accounting Theory*. The particular theoretical perspective of these two writers focuses on the application of economic theory to the explanation of accounting phenomena. The existence of such a book indicates that their theoretical perspective has reached (at least) the cluster stage. We analysed the twenty-four citations to this book and three were found to be clearly negative, indicating that there is some resistance to this theory within the discipline.

The remaining accounting and finance texts are less controversial, representing the body of knowledge that has reached the speciality stage in the discipline.

An interesting by-product of this study is a listing of the frequency with which individual publishers' books are cited. Table 4 lists the top ten publishers in this respect. Prentice-Hall clearly dominates with nearly 10 per cent of all citations.

We next examined journal variations in the pattern of book citations classified by discipline. These distributions provide a means of determining the relationship between the thirteen journals studied. The data was in the form of a  $13 \times 7$  matrix, where cell  $f_{ij}$  gives the frequency with which journal  $i$  cited books within discipline  $j$ . Due to the very small size of some disciplinary categories, MATH was combined with STAT to form a single quantitative techniques category, and LAW and ENG were included with the MIX category. In order to control for size effects,  $f_{ij}$  was converted to a relative measure:

$$P_{ij} = \frac{f_{ij}}{\sum_{j=1}^7 f_{ij}}$$

This converted matrix, shown in Table 5, was used as input to the SPSSX program for agglomerative hierarchical clustering (SPSSX, 1988). A number of clustering techniques were used in order to investigate the stability of the solution (Everitt, 1980). The five methods used were: single linkage, complete linkage, centroid, median and Ward's method. The solutions were obtained using the squared Euclidean distance metric, calculated from both standardized (unit standard deviation) and non-standardized variable values.

The solutions displayed considerable stability, suggesting a clear structure to the data. Variable standardization had a barely discernible impact on the result. Figure 2(a) shows the solution obtained using Ward's method on standardized variables.

The dendrogram reveals a clear split between those accounting journals which do not have a heavy empirical bias (group 1) and those which do (group 2). In group 1, AOS and FAM form a distinct subgroup from the remaining members — Ab, AR, BAR and ABR — which form a very homogeneous grouping. The

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TABLE 4

PUBLISHERS' CITATION RATES

	Percentage of total book citations
Prentice-Hall	9.9
Wiley	5.8
McGraw-Hill	5.2
Macmillan	4.5
Cambridge University Press	3.6
University of Chicago Press	3.2
Irwin	2.3
Harper & Row	1.7
Addison-Wesley	1.7
Harvard University Press	1.6
	39.5

TABLE 5

MATRIX OF RELATIVE (PERCENTAGE) FREQUENCY OF BOOK CITATIONS

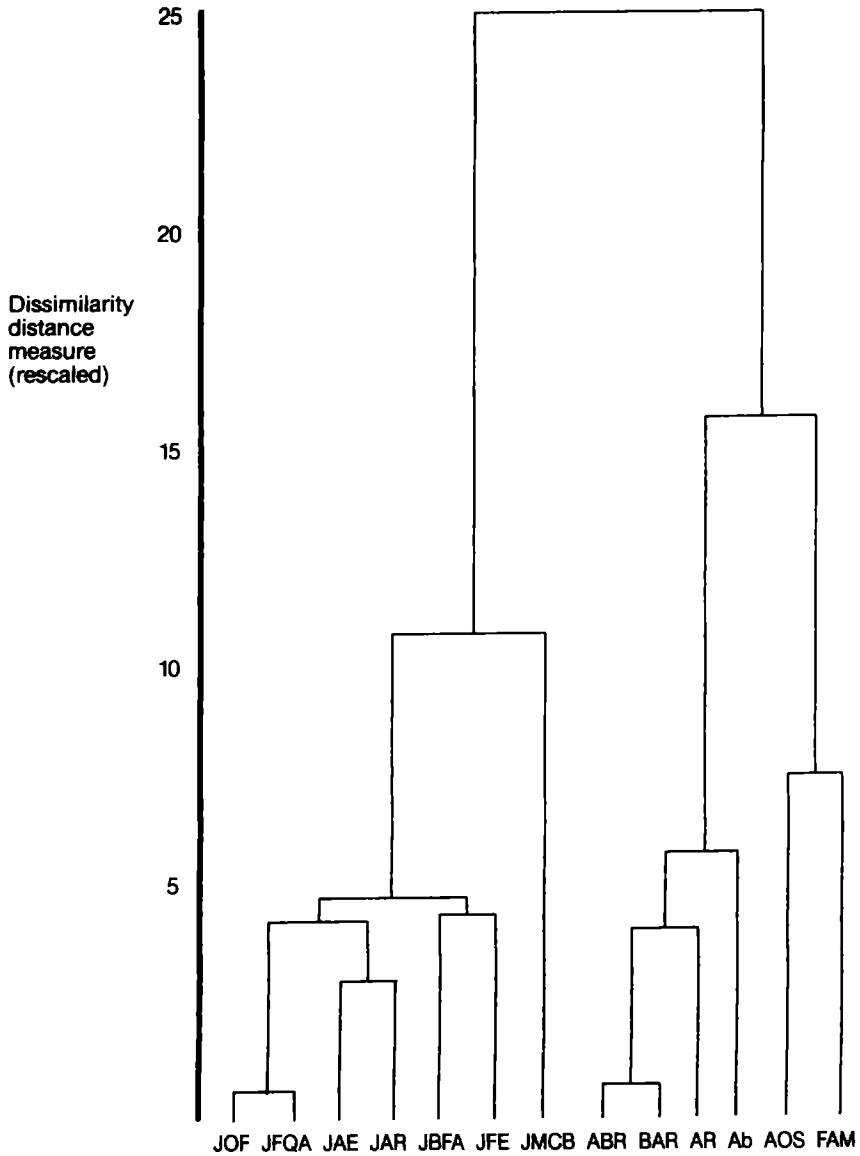
Journal	Discipline						
	ACC	ECFN	MGT	MIX	PSY	SOCPHIL	MATH & STAT
Ab	56.4	15.1	4.5	7.5	1.5	13.5	1.5
ABR	44.7	20.2	6.4	2.1	7.4	3.7	15.5
AOS	12.7	8.5	21.4	3.8	6.3	44.3	3.0
AR	23.9	17.8	6.7	5.6	10.5	9.4	26.1
BAR	58.2	11.8	3.6	1.0	11.8	10.0	3.6
FAM	7.5	20.8	37.8	9.4	0.0	17.0	7.5
JAE	17.1	48.6	2.9	0.0	0.0	2.9	28.5
JAR	20.4	29.6	0.0	1.9	0.0	3.7	44.4
JBFA	29.2	27.7	0.8	3.1	0.8	6.9	31.5
JFQA	0.0	66.1	0.0	0.0	0.0	0.0	33.9
JFE	4.5	39.4	15.2	4.5	0.0	0.0	36.4
JMCB	0.0	77.5	1.3	6.0	0.0	8.6	6.6
JOF	0.0	65.8	4.3	1.9	0.0	0.0	28.0

reason why AOS and FAM form a subgroup is clear from inspection of the relative frequency matrix — both journals draw heavily from the management and sociology disciplines. AOS draws particularly on sociology while FAM draws particularly on management; this difference explaining the relative looseness of the link between the two journals.

Ab, AR, BAR and ABR could be described as the general accounting journals. Those journals sponsored by professional accounting associations fall into this

FIGURE 2A

DENDROGRAM SHOWING CLUSTER ANALYSIS OF JOURNALS BASED ON DISCIPLINARY CLASSIFICATION OF BOOK CITATIONS

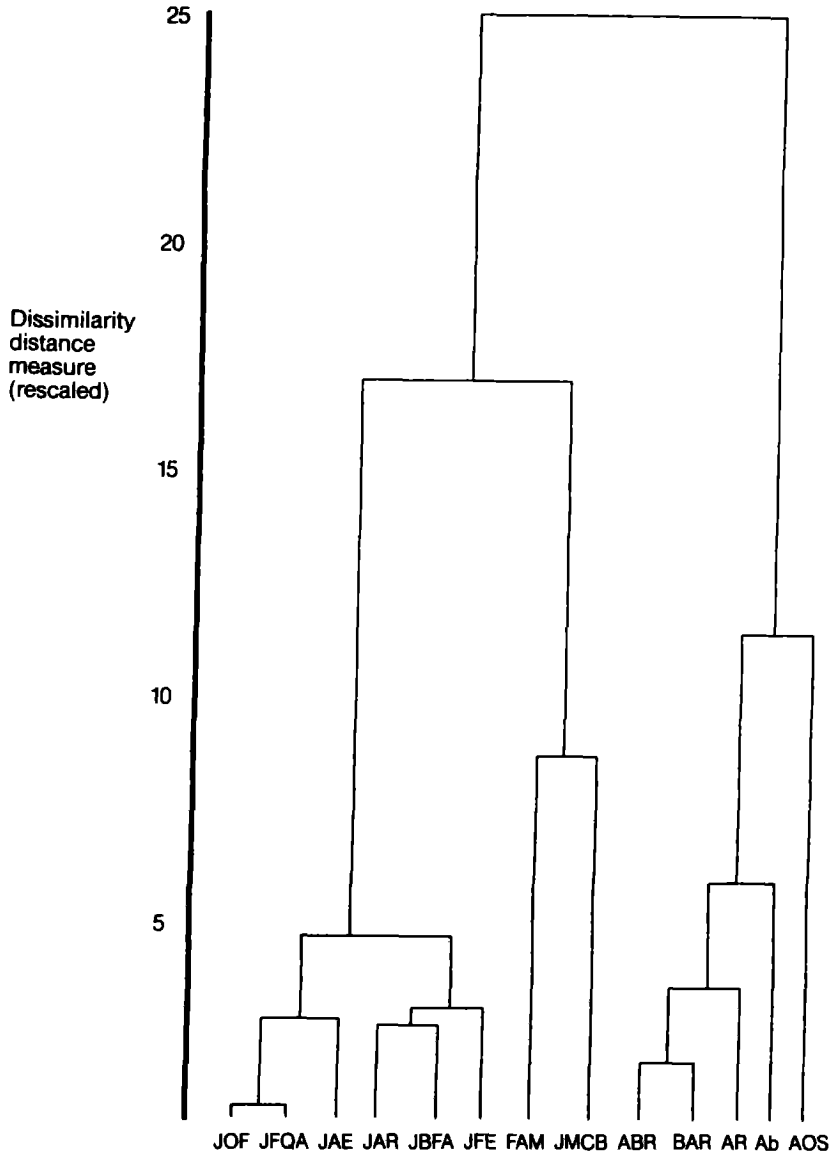


Note: Agglomerative hierarchical clustering begins with each object (journal) forming a single cluster. At each stage the number of clusters is reduced by one by joining the two clusters considered to be the most similar. Thus small vertical separations between linkages indicate high similarity between the respective cluster pairs.

NON-SERIAL PUBLICATIONS IN ACCOUNTING

FIGURE 2B

DENDROGRAM SHOWING CLUSTER ANALYSIS OF JOURNALS BASED ON DISCIPLINARY CLASSIFICATION OF BOOK CITATIONS AND CITATIONS TO PROFESSIONAL BODIES



subgroup. Williams (1985) has suggested that this professional link affects the content of AR. Certainly the publicly stated editorial policy of these journals tends to favour articles which are intelligible to, and of relevance to, practitioners (Editorial Policy Statement *The Accounting Review*, 1988; Objectives Statement, *Accounting and Business Research*, 1988).

In group 2 we find those journals which tend to rely heavily on quantitative analysis — the finance journals plus JAE and JAR. Within this group, JMCB is the last to cluster in — from Table 6 we see that, for a finance journal, there is an unusually low relative frequency of citations in the MATH and STAT category. It is interesting to observe how JAE clusters very tightly with the pure finance journals, and how distant it is from the general accounting journals. The joint-founder editors of this journal, Watts and Zimmerman, are also the authors of the most cited book in this study. The emergence (in 1979) of a journal dedicated to their theoretical perspective clearly facilitated the development of this theory group. Mullins (1973, pp. 24, 80) discussed the importance of editorships and the establishment of journals to the development of theory groups.

JAR has been the historical champion of empirical research in accounting. In discussing the origins of JAR, which commenced in 1963, Davidson's (1984) stated perception was that: 'the previous decade had seen substantial advances in the development of statistical techniques and quantitative analysis . . . a more scientific approach to accounting research was clearly on the horizon' (p. 282).

#### *Professional and Governmental Publications*

Overall 4.9 per cent of total citations were to official, mostly regulatory, bodies. Of the professional accounting bodies (acronyms are listed in the Appendix), the most cited were FASB (69 citations), AICPA (60), ICAEW (46), AAA (45) and ASC (38). Of the governmental bodies, the most cited were NBER (46 citations), SEC (45) and the Federal Reserve Banks (27). Table 6 provides a listing of the official documents cited four or more times. All are published by one of the professional accounting bodies. Four of the items concern accounting for changing prices, indicating that this remains a 'hot topic' in research.

The final two columns of Table 1 indicate the extent to which each of the journals studied cites official publications. It is apparent that there are significant inter-journal variations. The four general accounting journals (Ab, AR, BAR and ABR) show the highest rates of citation to the professional accounting bodies (on average 8 per cent of total citations). The most frequent citations of government bodies are in JMCB, FAM and JAE — three journals which focus on regulation as an issue but which otherwise appear to offer quite different approaches to their subject matter.

We repeated the cluster analysis using the percentage citation rates to private and public bodies as a further two variables. The resultant dendrogram (Figure 2(b)) is very similar to the initial solution. Ab, AR, BAR and ABR are seen to cluster even more tightly together. Also the inherent dissimilarity between AOS and FAM is revealed — FAM now joins loosely with JMCB (both being concerned with public sector activities). This leaves AOS on its own — a reflection of its greater concern with non-regulated areas such as management accounting.

NON-SERIAL PUBLICATIONS IN ACCOUNTING

TABLE 6

MOST CITED OFFICIAL DOCUMENTS

Official body	Document	Year	Number of unique citing sources
AAA	<i>Human Information Processing in Accounting, Studies in Accounting Research No. 17</i> , by R. H. Ashton	1982	7
AICPA	<i>Objectives of Financial Statements. The Trueblood Report</i>	1973	7
FASB	<i>SFAS33: Financial Reporting and Changing Prices</i>	1979	7
ASC	<i>SSAPI6: Current Cost Accounting</i>	1980	6
FASB	<i>SFAC1. Objectives of Financial Reporting by Business Enterprises</i>	1978	6
ICAEW	<i>Survey of UK Published Accounts</i> (various years), D. J. Tonkin and L. C. L. Skerratt (eds)	various	6
AAA	<i>The Allocation Problem: Part 2, Studies in Accounting Research No. 9</i> , by A. L. Thomas	1974	4
FASB	<i>The Incremental Information Content of FAS33 Disclosures</i> , by W. H. Beaver and W. R. Landsman	1983	4
ICAEW	<i>Current Cost Accounting: The Benefits and the Costs</i> , B. V. Carsberg and M. J. Page (eds)	1984	4

CONCLUSION

This study has used the pattern of citations to non-serial publications to reveal a partial structure for the knowledge domains of accounting and finance in terms of the links with both other disciplines and official bodies. The accounting discipline in particular has been shown to be open to influence from these sources and we tentatively conclude that this influence is increasing over time. A fully comparable longitudinal analysis would yield a more robust conclusion. Close links between the accounting and finance disciplines were evident, with finance research making an important contribution to modern accounting thought. Influence in the reverse direction was negligible. Within these disciplines, the theory group which had most impact during 1987/88 was agency theory. Some resistance to this theory was evident.

Journal variations in the distribution of book citations classified by discipline and the distribution of citations to official bodies reflect the perspective of each journal. Two relatively homogeneous groupings emerged comprising: (a) Ab, AR, BAR and ABR, and (b) JFE, JBFA, JAR, JAE, JFQA and JOF. The remaining three journals (AOS, JMCB and FAM) displayed distinctive perspectives. These



groupings in no way reflect the 'quality' of the journals. Beattie and Ryan (1989) addressed this issue for a subset of the journals analysed in this study.

REFERENCES

- Baxter, W. T., *Accounting Research — Academic Trends Versus Practical Needs*, ICAS, 1988.
- Beattie, V. A., and R. J. Ryan, 'Performance Indices and Related Measures of Journal Reputation in Accounting', *British Accounting Review*, September 1989.
- Brown, L. D., and J. C. Gardner, 'Applying Citation Analysis to Evaluate the Research Contributions of Accounting Faculty and Doctoral Programs', *The Accounting Review*, April 1985a.
- , 'Using Citation Analysis to Assess the Impact of Journals and Articles on Contemporary Accounting Research', *Journal of Accounting Research*, Spring 1985b.
- Brown, L. D., J. C. Gardner and M. A. Vasarhelyi, 'An Analysis of the Research Contributions of Accounting, Organizations and Society, 1976-1984', *Accounting, Organizations and Society*, 1987.
- Cole, S., and J. R. Cole, 'Scientific Output and Recognition: A Study in the Operation of the Reward System in Science', *American Sociological Review*, 1967.
- Cox, E. P., P. W. Hamelman and J. B. Wilcox, 'Relational Characteristics of the Business Literature: An Interpretative Procedure', *Journal of Business*, April 1976.
- Davidson, S., 'The Origins of the Journal of Accounting Research', Appendix to T. R. Dyckman and S. A. Zeff, 'Two Decades of the Journal of Accounting Research', *Journal of Accounting Research*, Spring 1984.
- Dyckman, T. R., and S. A. Zeff, 'Two Decades of the Journal of Accounting Research', *Journal of Accounting Research*, Spring 1984.
- Editorial Policy Statement, *The Accounting Review*, 1988.
- Everitt, B., *Cluster Analysis*, 2nd edn, Gower, 1980.
- Hopwood, A. G., *Accounting Research and Accounting Practice: The Ambiguous Relationship Between the Two*, a Deloitte, Haskins and Sells Accounting Lecture, Aberystwyth, 1983.
- Kuhn, T.S., *The Structure of Scientific Revolutions*, 2nd edn, University of Chicago Press, 1970.
- McRae, T. W., 'A Citational Analysis of the Accounting Information Network', *Journal of Accounting Research*, Spring 1974.
- Mullins, N. C., *Theories and Theory Groups in Contemporary American Sociology*, Harper and Row, 1973.
- Niemi, A. W., 'Institutional Contributions to the Leading Finance Journals, 1975 through 1986: A Note', *Journal of Finance*, December 1987.
- Objectives Statement, *Accounting and Business Research*, 1988.
- Price, D. deS., *Little Science, Big Science*, Columbia University Press, 1963.
- Small, H. G., *Mapping the Specialty Structure of the Social Sciences Using the Social Sciences Citation Index*, unpublished Report of a Study for the National Science Foundation, 1975.
- SPSS, *SPSS-X User's Guide*, 3rd edn, SPSS, 1988.
- Williams, P. F., 'A Descriptive Analysis of Authorship in The Accounting Review', *The Accounting Review*, April 1985.
- Zeff, S. A., and Hofstedt, T. R., 'The Communication Gap: The Researcher and the Practitioner', *The Accountant's Magazine*, January 1974.

APPENDIX

OFFICIAL BODIES INCLUDED IN DATABASE

*Professional Accounting Bodies*

American Accounting Association (AAA)  
Chartered Association of Certified Accountants (CACA)  
American Institute of Certified Public Accountants (AICPA)  
Accounting Standards Committee (ASC)  
Australian Accounting Research Foundation  
Australian Society of Accountants  
Canadian Certified and General Accountants Research Foundation  
Canadian Institute of Chartered Accountants (CICA)  
Consultative Committee of Accounting Bodies (CCAB)  
Chartered Institute of Management Accountants (CIMA)  
Fiji Institute of Accountants  
Financial Accounting Standards Board (FASB)  
International Accounting Standards Committee (IASC)  
Institute of Chartered Accountants in England and Wales (ICAEW)  
Institute of Chartered Accountants in Ireland (ICAI)  
Institute of Chartered Accountants in Scotland (ICAS)  
Institute of Internal Auditors  
National Association of Accountants  
New Zealand Society of Accountants  
Society of Management Accountants of Canada

*National and Federal Government Bodies*

Australian Audit Office  
Bank of Japan  
Central Statistical Office (CSO)  
Committee Reports (various)  
Congressional Budget Office  
Department of Employment  
Department of Education and Science  
Department of Health and Social Security (DHSS)  
Department of Trade and Industry (DTI)  
Deutsche Bundesbank  
Diario Oficial de la Federacion  
Economic and Science Research Council (ESRC)  
Equal Opportunities Commission  
Federal Deposit Insurance Corporation  
Federal Home Loan Bank Board  
Federal Reserve Bank  
Federal Trade Commission  
International Monetary Fund (IMF)

**Ministry of Finance of the People's Republic of China**  
**Monopolies and Mergers Commission**  
**National Bureau for Economic Research (NBER)**  
**National Council on Governmental Accounting**  
**National Economic Development Office (NEDO)**  
**National Statistics Bureau**  
**Organization for Economic Cooperation and Development (OECD)**  
**Reserve Bank of New Zealand**  
**Securities and Exchange Commission (SEC)**  
**United Nations (UN)**  
**University Grants Committee (UGC)**  
**U.S. Congress**  
**U.S. Department of Commerce**  
**U. S. Department of Employment**  
**U.S. Department of Health and Human Services**  
**U.S. Department of the Air Force**  
**U.S. Internal Revenue Service**  
**U. S. Senate**  
**U. S. Treasury Department**