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Contemporary public sector accounting research – An international comparison of journal papers[☆]

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ABSTRACT

Keywords: Public sector Literature review Methodology This paper provides a broad review of the public sector accounting research in recent years, including that undertaken in the US. An analysis of this research reveals a methodological distinction between research undertaken in the US (using predominately functionalist methodologies, accompanied by positivistic quantitative research methods) and that undertaken in the rest of the world (using interpretive and radical/alternative methodologies, with qualitative research methods). The nature, causes and consequences of this distinction are discussed. The paper concludes with an exhortation for PSAR researchers to explore multiparadigmatic methodologies in future research.

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1. Introduction

Public sector accounting research (PSAR) has become a well established field with researchers publishing in dedicated journals such as Financial Accountability and Management (FAM), based in the UK and the Journal of Public Budgeting, Accounting and Financial Management (JPBAFM) in the US. To a lesser extent PSAR is also published in other mainstream journals such as Accounting, Organisations and Society (AOS) and the Accounting, Auditing and Accountability Journal (AAAJ). In addition in the UK the British Accounting Association (BAA) established a Special Interest Group (SIG) in PSAR in 1996 with the intention of encouraging research in this area and creating a network of researchers. The SIG has also funded PSAR throughout its history and recently the Economic and Social Research Council (ESRC) has funded Research Programmes in the area. These initiatives have all helped to establish a healthy network of international PSA researchers. This paper is an attempt to summarise contemporary PSAR across the world and to use this analysis to identify issues and future possible directions for such research.

There have been a number of literature reviews of PSAR in recent years but these have all been partial analyses, principally excluding US PSAR journals. Indeed, there have been no literature reviews of US PSAR research. This omission has arguably led to a lack of knowledge and appreciation of a significant body of PSAR. It may also contribute to an unfortunate example of 'groupthink' among both US and non-US PSA researchers, which, in turn, may have led to a closing down of legitimate research opportunities. This paper attempts to obtain a deeper understanding of the differences between the research approaches in the US and the rest of the world and of the paradigmatic isolation which both groups have adopted.

Several researchers have noted the distinctive methodological approach of the US (Broadbent & Guthrie, 2008; Bromwich & Scapens, 2001; Williams, Gregory Jenkins, & Ingraham, 2006). This approach is certainly within the functionalist paradigm (Burrell & Morgan, 1979) adopting a positivistic methodology, often informed by neoclassical economics and relying on

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[†] The views expressed in this paper are entirely those of the author and not of the Public Services Special Interest Group of the British Accounting Association.

quantitative research methods. In contrast, non-US research is predominantly interpretive and critical, often informed by social theorists concerned with context and relies on qualitative methods. However, adoption of either approach should not be regarded as the only correct way, nor should it dismiss research undertaken with a different approach. In accounting research in general there is growing concern (Khalifa & Quattrone, 2008; Reiter & Williams, 2002) with 'the lack of recognition and communication across....paradigms resulting from the fragmentation and polarisation of accounting academia' (Modell, 2009, p. 208). Moreover, the stranglehold these paradigmatic approaches hold over the research agendas can lead to insularity and limited research within each community. For instance little contextual research using interpretive methodologies is undertaken in PSAR in the US and little functionalist PSAR is undertaken elsewhere. The limiting effect this has upon the research agenda may be deepened by the tendency for functionalist researchers to address subject matter that is more immediately amenable to quantitative methods and interpretive/critical researchers to address subjects more amenable to contextual, qualitative methods. Yet another possibility for extending PSA research lies in the emerging interest in the broader accounting research community, in combining theories, methodologies and methods across paradigms, to enhance the research agenda (Brown & Brignall, 2007; Davila & Oyon, 2008; Hopper & Hoque, 2006; Locke & Lowe, 2008; Modell, 2005, 2009).

This paper addresses the gap in literature reviews of US PSAR, analyses and discusses whether and to what extent a paradigmatic dichotomy exits in PSA research in the US and elsewhere and examines the characteristics and consequences of such a dichotomy. Finally, the paper discusses the possibilities for releasing PSA research and researchers from these paradigmatic 'bunkers' by encouraging researchers to adopt approaches alongside those dominant in their own academic contexts and/or adopting multiparadigmatic approaches.

2. Prior reviews of PSAR literature

Some of the reviews of PSAR literature have been general and relatively unstructured, such as Guthrie, Humphrey, and Olson (1999); Humphrey, Miller, and Scapens (1993); Lapsley (1988) and Olson, Guthrie, and Humphrey (1998). However of most relevance to this paper are the more structured reviews by Broadbent and Guthrie (1992, 2008) and van Helden (2005). Broadbent and Guthrie (1992, 2008) have produced two reviews of PSAR, focused on 'alternative accounting research' as opposed to 'traditional' accounting. They categorised PSAR in terms of accounting's relationship with its organisational context and with its assumed power to lead to change in the public sector (Broadbent & Guthrie, 1992). PSAR which considered the organisational context as unimportant and which assumed accounting was very powerful in achieving change was categorised as 'traditional'. Other combinations were categorised as 'alternative'. The paper concluded that little 'alternative' research had been undertaken at the time and called for more such research across the broad scope and context of the public sector with an emphasis on evaluating new accounting.

Broadbent and Guthrie (2008) present a much more comprehensive review of 'contextual' PSAR over the last twenty years. It categorises some 452 papers from eight selected journals over the period 1992–2006. The journals were AOS, AAAJ, Accounting Forum (AF), British Accounting Review (BAR), Critical Perspectives on Accounting (CPA), European Accounting Review (EAR), FAM, and Management Accounting Research (MAR). As in the 1992 study, only 'alternative' PSAR was included and 'American mainstream and those similar journals that concern themselves with more positivistic approaches in which populations of data rather than the use of accounting in particular organisational settings' (p. 131) were purposively omitted. They found a broad variety of research sites but perhaps a lack of depth in specific areas. There was a concentration on management accounting with an emerging interest in accountability, auditing and some new areas such as Public Private Partnerships (PPP)/Private Finance Initiatives (PFI) and social and environmental issues. In terms of methodology, they found many papers were commentaries and/or normative and that there was more fieldwork and case studies than theoretically informed work. They also found three significant contemporary trends, a move to external reporting and the concern with public infrastructure, governance and risk and performance measurement and management. Finally they identified areas for future research including more contextually technical accounting research, more empirically informed theorising and more engagement with practice.

Another relevant review of PSAR was undertaken by van Helden (2005). This paper comprised an analysis of 55 PSA management accounting papers in five journals in the period 1999–2001. The five journals, AAAJ, AOS, FAM, MAR, and EAR had also been included in the Broadbent and Guthrie (1992) analysis. No US journals were included. The analysis found most papers were concerned with budgeting and performance measurement, most had a theoretical component and used a case study approach. These results differ from Broadbent and Guthrie, particularly with respect to the theoretical component. This may be due partly to the sub set of journals and years chosen, partly to the selection of only management accounting papers and possibly to the coding of the categories and/or the interpretation of what constitutes a theoretical component. Van Helden also investigated the extent to which this research was related to New Public Management (NPM). He found that papers mainly dealt with NPM concepts, techniques and practices, with little attention being given to the impact of these practices, a similar finding to Broadbent and Guthrie.

Whilst these research reviews have provided valuable insights into PSAR, they are limited in scope. As discussed above, perhaps the most serious omission concerns that of PSAR in the US. Such an omission inevitably limits our knowledge of contemporary PSA and is particularly likely to provide a bias against the positivistic, neoclassical economics based and quantitative PSAR predominate paradigm in the US (Williams et al., 2006). In order to provide a contemporary view of PSAR it is also preferable to select just the most recent years as taking a longer period may tend to obscure the emergence of more recent research in new areas or different theoretical and/or methodological approaches.

It is clear that most PSAR papers are concerned with aspects of management accounting and there have been a number of literature reviews in recent years in this general area which are of interest to this paper. Shields (1997) analysed papers published by North American researchers in management accounting in the 1990s. He developed a useful classification schema which has informed that used in the current paper. Perhaps unsurprisingly he found that most papers were informed by economic (agency theory) and organisational (contingency) theory, adopted a quantitative methodology and were concerned with performance management and costing. In the UK, Bromwich and Scapens (2001) produced an analysis of papers published during the 1990s. Again, this analysis developed a useful classification scheme, similar to Shields, which has proved useful in the current analysis. They found a more diverse set of topics than Shields, with the majority of papers adopting an applied or economics (decision making) approach but also case, field study or survey methods. They also suggest a clear contrast between US and non-US research, the former being largely informed by an economics perspectives with 'clear notions about what management are and what they do' and the latter being informed more by an organisational and social perspective which 'explore processes such as organisational learning and....processes of management accounting change'. It will be of interest to see if such contrasts are also found in PSAR.

In the next section an analysis of nine journals, based in the UK, Australia and the US, over the period 2005–2007 is presented and analysed.

3. Research domain and journal selection

The boundary between the private and the public sector is constantly changing as privatisation of public services abounds, PPPs and PFIs are developed to provide such services and the third sector increases in importance, particularly in the developing economies. Broadbent and Guthrie (2008) argue that PSAR is concerned with the delivery of public services rather than with the ownership and organisational structure of the public sector. This approach has been largely adopted in this paper and PSAR has been taken to exclude private sector companies but will include all other types of governance structures concerned with providing public services such as PPPs, other public agencies and NGOs. These latter organisations were excluded from van Helden's analysis.

All aspects of accounting and finance were included in the review, including financial accounting, management accounting and auditing. Also included were papers concerned with financing local public services such as revenue forecasting, local bonds and taxation issues. A more complete taxonomy is provided below.

Journals were selected to ensure as complete a data set of PSAR as possible from across the world. The vast majority of such papers in the non-US world are published in FAM, AAAJ, AOS, MAR, EAR and CPA. Indeed these journals comprised 94% of Broadbent and Guthrie's total sample and 100% of van Helden's and were therefore selected for this paper's database. BAR was initially selected but there were no PSA papers published in the period 2005–2007. In the US, journal selection was guided by Lowensohn and Samelson's (2006) analysis of academic journal quality in specialised areas of accounting research. They surveyed 52 American Accounting Association faculty with an interest in PSAR for their perceptions of the leading journals in this area. Three academic journals were rated as being of high quality; the Journal of Accounting and Public Policy (JAPP), Research in Governmental and Non Profit Accounting (RGNPA) and the Journal of Public Budgeting, Accounting and Financial Management (JPBAFM). Interestingly they also rated the Journal of Governmental Financial Management (JGFM) as being a high quality PSAR journal. JGFM is the journal of the Association of Government Accountants AGA and is directed more at a practitioner readership than an academic one; this being reflected in the type of paper published. This high rating may be evidence of a closer relationship between PSA researchers and practitioners in the US than in the rest of the world. However, this paper is concerned principally with academic papers and research and therefore JGFM has been omitted from the analysis.

4. Categorisation of PSA journal papers

The final data set therefore comprised all 188 of the PSAR papers published in nine academic journals during the period 2005–2007 inclusive. The journals, categorised between the US and the Rest of the World as indicated by the principal academic residency of the Editorial Boards, were:

US: JAPP, RGNPA, JPBAFM

Rest of world: FAM, AAAJ, AOS, MAR, EAR, CPA, (BAR)

The number of papers identified in each journal is shown in Table 1. Each relevant paper was classified according to the residency of its author(s), the institutional setting of the research, the theoretical approach, the research methods used, the focus of the research and the research topic, using the following schema. The classification framework is a composite of those used by Broadbent and Guthrie (2008) and van Helden (2005).

4.1. Author residency

A similar classification to that used by van Helden (2005) was chosen. This classification was comprehensive and separately identified Scandinavian countries which aided the analysis as researchers from these countries had a great many commonalties which were distinctive compared to other geographical groupings (see below). Similarly Canadian residents were separately identified as was the Developing World to reflect its growing importance as a site for research.

Table 1 Analysis of papers by journal.

Journal	Frequency	Percent
Rest of world		
FAM	59	31.4
AOS	9	4.8
CPA	14	7.4
AAAJ	24	12.8
MAR	4	2.1
EAR	5	2.7
Total rest world	115	61.2
US		
JPBAFM	55	29.2
JAPP	5	2.7
RGNA	13	6.9
Total US	73	38.8
Total	188	100.0

Table 2. shows that PSAR is still relatively confined to a few countries, with those producing the largest number of PSAR papers being the US and the UK. There are also significant numbers in Scandinavian countries and Australia/New Zealand. The increase in research emanating from Scandinavia is probably the most significant change in recent years. Van Helden found Scandinavian countries produced 18% of PSAR papers in countries outside the US between 1999 and 2001 and in this paper this percentage has increased to 21%. This group of researchers is discussed in more detail below. It is also encouraging to see emerging interest in PSAR in Canada and Asia.

4.2. Research settings

A similar classification to that used by van Helden (2005) was chosen although some changes were made. The main problem in classifying research setting is that different services can be located at different tiers of government in different countries. For instance schools can be provided by local government, state government, local boards and even NGOs depending where the research is undertaken. A fairly broad classification was therefore used, based mainly on tiers but also allowing separate identification of particularly popular research services such as Health, Schools and Higher Education (HE) as follows.

A good spread of research settings is developing across the whole public sector as shown in Table 3. It is particularly encouraging to note the emerging interest in NGOs, a very significant provider of public services, especially in the developing world. However, there are significant differences between the research settings in this analysis to those found by van Helden. The largest differences are in Health (van Helden found 39% and central government (5%). These differences may well be due to the inclusion of US PSAR and this is explored in more detail below.

4.3. Theoretical/methodological approach

In many ways the theoretical or methodological approach is the most interesting aspect to investigate but it is also the most difficult to categorise. The term methodology is distinguished from methods by its implicit inclusion of a theoretical approach. However, there is little consistency in the classifications used in the prior reviews. In order to capture the diversity of approaches a more thorough classification, based broadly on the methodological matrix developed by Burrell and Morgan (1979), is used. This matrix was itself developed to categorise sociological and organisational research, and comprises four

Table 2 Journal papers categorised by author residency.

Country	Number papers	Percentage
Europe		
UK	42	22.3
Scandinavia	24	12.8
other	14	7.4
US	71	37.8
Australia/NZ	22	11.7
Asia	7	3.7
Developing World	2	1.1
Canada	6	3.2
Total	188	100.0

Table 3 Journal papers categorised by research settings.

Research setting	Frequency	Percent
General/non specific	29	15.4
Central government	34	18.1
Agency	4	2.1
Local government	57	30.3
Health	25	13.3
NGO/third sector	15	8.0
Schools	6	3.2
Higher education	8	4.3
Other	10	5.3
Total	188	100.0

methodological approaches, functionalism, interpretivism, radical structuralist and radical humanism. Following Baxter and Chua (2003) and Hopper and Powell (1986), the two radical paradigms have been merged to form one radical/alternative paradigm.

Prior reviews have also noted that many papers have no prior theory but are rather descriptions of accounting practices. Van Helden categorises these as 'no theory', Broadbent and Guthrie as 'commentary/normative' and Bromwich and Scapens as 'applied'. In this paper two categories, descriptive and normative are used. Descriptive papers are those which describe accounting practices but with no theoretical framework, including case studies and surveys. Normative papers are those concerned with developing new practices and with identifying which accounting practices organisations should be using.

Functionalist research is characterised by its objectivist, regulatory stance and includes papers informed by economic theories and objectivist organisational theories. Economic theories can be further categorised into agency (and similar market based economic utility based theories) theory and those which implicitly 'adopt a traditional managerial approach grounded in an economic decision making perspective' (Bromwich & Scapens, 2001, p. 249). This latter group includes those papers concerned with the study of specific accounting practices. Organisational theories are subdivided into contingency theory and other functionalist organisational theories.

Interpretive research is characterised by its subjectivist, regulatory stance and includes papers using a grounded theory approach and other interpretive sociological approaches. Grounded theory is not inherently an interpretive methodology but in practice PSA researchers, along with other accounting researchers have, adopted the approach, following Parker and Roffey's (1997) exhortation to use it in such a way. Papers informed by other interpretive sociological approaches include not only the traditional approaches such as ethnomethodology and ethnology but also more contemporary approaches such as structuration theory.

Radical/alternative research is characterised by its concern with radical change. Baxter and Chua (2003) and Hopper and Powell (1986), in their reviews of 'alternative' and radical research, identify a number of specific approaches which provide useful categories for analysis. These include institutional theory, labour process theory, Foucauldian approaches, Latourian approaches and Habermasian approaches. More recently an emerging interest in Bourdieu has also developed in PSAR. It should be noted that the categorisation of individual papers was not always clear. In many cases the methodological/theoretical approach was implicit rather than explicit and the author had to infer which approach was taken.

Table 4 shows that although there is again an impressive range of theoretical approaches being taken to PSAR, it is still disappointing to see that the single approach used in most papers is descriptive, with no theoretical content at all. Moreover this is greater than the 18% found by Van Helden (probably again due to the inclusion of many descriptive US papers). However, it is similar to the 37% found by Broadbent and Guthrie which, as they excluded US papers, may suggest there are fewer such papers in the non-US world than used to be the case. There was little evidence of the over-reliance on normative theorising and theoretical reviews resulting in 'armchair' theorising found by Broadbent and Guthrie. This may suggest that such papers were a phenomenon of the 1990s when PSAR was still developing and establishing itself as a legitimate area of research. Empirical research is very dominant in contemporary PSA research, in all its forms, with theoretically informed empirical research comprising some 65% of total papers. In paradigmatic terms 28% of these papers were informed by a functionalist approach, 19% by an interpretive approach and 17% by a radical/alternative approach.

4.4. Research methods

The classification of research methods is less contentious, with Bromwich and Scapens (2001) and van Helden (2005) using similar schema, which also formed the basis of that used in this paper. Most categories are self explanatory. Theoretical methods refers to those papers which were primarily concerned with developing or exhorting theories for further research and which had no empirical content. Mathematical analysis includes papers primarily concerned with developing mathematical models or statistical analysis such as data envelope analysis. Surveys refer to questionnaire or data base investigations which were either descriptions of accounting and organisational practices and/or perceptions or surveys designed to collect data to verify specific hypotheses. Where papers used more than one approach, such as interviews and document search, it was categorised according to the principal methods, usually interviews.

Table 4lournal papers categorised by theoretical/methodological approaches.

Theoretical/methodological approaches	Frequency	Percent
Descriptive	67	35.6
Normative	13	6.9
Functionalist		
Agency theory	25	13.3
Contingency theory	2	1.1
Organisational	11	5.9
Accounting	15	8.0
Interpretive		
Grounded theory	3	1.6
Sociological	19	10.1
Radical/alternative		
Institutional theory	16	8.5
Labour process	0	0
Habermas	1	.5
Foucault	6	3.2
Latour	4	2.1
Bourdieu	2	1.1
Other	4	2.1
Total	188	100.0

Table 5 indicates that not surprisingly, the research methods used are conducive with the theoretical/methodological approaches, with descriptive methods being used by many researchers. It is more encouraging to see an impressive number of hypothesis testing papers. This is partly the result of including the US papers but not entirely. Any research area needs a variety of approaches if it is to develop a comprehensive, rigorous, research community. It is disappointing to see so few papers using experimental methods but this is an underused approach throughout accounting research. Again, in comparison to van Helden significant differences are found. Most striking is the very limited use of analytic and survey papers he found (7%) compared to 39% in the current analysis and the corollary extensive use of case studies (53% compared to 31%). Again the inclusion of US papers is a significant factor in explaining these differences. The 18% of historical/content analyses found by Broadbent and Guthrie was not replicated in this study which found only eight such papers (4%).

4.5. Research topics

In order to capture the very broad range of topics studied across the world a more extensive analysis of topics has been undertaken than those used in prior research reviews. It was also necessary to extend the usual range of financial and management accounting topics to include more finance based ones, popular amongst US PSA researchers such as revenue forecasting, local taxation issues and capital finance.

Again it should be noted that the categorisation of individual papers was not always clear. For instance papers concerned with performance management could have been classified as NPM and those concerned with revenue forecasting could have been classified as budgeting. However, the analysis is mainly concerned with obtaining a general picture of the breadth and depth of topics studied rather than being overconcerned with classification accuracy.

The range of topics shown in Table 6 is both broad and comprehensive, with no single area dominating research. The dominance of budgeting and performance management (28% and 43% respectively) found by Van Helden was not replicated

Table 5 Journal papers categorised by research methods.

Research methods	Frequency	Percent
Interviews	48	25.5
Hypothesis testing survey	45	23.9
Descriptive survey	25	13.3
Descriptive case study	19	10.1
Theoretical	15	8.0
Document review	11	5.9
Archival	8	4.3
Literature review	6	3.2
Other	6	3.2
Mathematical analysis	3	1.6
Experiment	2	1.1
Total	188	100.0

Table 6Journal papers categorised by research topic.

Research topic	Frequency	Percent
Accountability/governance	23	12.2
Performance management	20	10.6
Budgeting	19	10.1
Auditing	18	9.6
Other	17	9.0
Accruals	12	6.4
Costing	12	6.4
Capital finance	12	6.4
New Public Management	11	5.9
Revenue forecasting	8	4.3
General management accounting	7	3.7
General financial accounting	6	3.2
Risk	6	3.2
Financial reporting	5	2.7
General accounting	4	2.1
Local taxation issues	3	1.6
Fraud and corruption	3	1.6
PFI/PPP	2	1.1
Total	188	100.0

in this study. Indeed, the area of most contemporary interest is accountability/governance, which was not separately identified by Van Helden at all and only comprised about 8% of Broadbent and Guthrie's sample and this area has clearly grown in interest more recently. However, the new areas identified by Broadbent and Guthrie, such as PPI/PPP, social and environmental matters, devolution and intellectual, have not developed into significant areas of interest. The dominance of management accounting found by Van Helden and Broadbent and Guthrie continues to exist but the inclusion of US papers, with their interest in areas of finance such as capital finance, local taxation, revenue forecasting and risk, broaden the research in PSA, when viewed globally.

5. Analysis of paradigmatic groupings

Having presented an overview of PSAR, the data can be analysed to test the existence of the US and non-US paradigmatic groupings discussed in the introduction and to explore the nature of the differences. In order to investigate the existence of different groupings of researchers, a cluster analysis was undertaken. The advantage of using cluster analysis over univariate methods is that it looks at all the variables together to see if any significant and identifiable groupings exist. It seeks to identify any groups within the data, which both minimise within-group variation and maximise between-group variation. Two-step cluster analysis was used in this study as categorical variables with three or more levels were available. The SPSS auto clustering option was selected to analyse the data set and two clears groups were identified. SPSS identifies the optimal number of clusters by selecting a solution of reasonably large 'Ratio of BIC changes' and a large 'Ratio of Distance Measures'. In this case, two groups provide the optimal solution, with 55.3% of cases on group 1 and 44.7% in group 2. It is clear that two groupings do indeed exist.

An analysis of the number of journal papers categorised by author residency in each cluster suggests that the two groups are geographically identifiable as shown in Table 7.

There is a clear distinction between the US (together with Asia and Developing World researchers) and the Rest of the World with almost all the US researchers in cluster 2 and the rest of the world researchers in cluster 1.

Table 7Journal papers categorised by author residency in each cluster.

Frequency	Cluster		
	1	2	Combined
Europe UK	42	0	42
Scandinavia	22	2	24
Other	11	3	14
USA	2	69	71
Australasia	20	2	22
Asia	1	6	7
Developing world	0	2	2
Canada	6	0	6

Having established the existence of two geographically distinct research groupings, a number of cross tabulation analyses were undertaken to explore the differences in more detail. The first such analysis was to test the premise that the methodological approaches used by the US researchers differ from the Rest of the World. This is summarized in Table 8. The analysis excludes those papers which were classified as descriptive and had no methodological approach.

The paradigmatic insularity is most startlingly evident amongst the US researchers with all but two papers bring located in the functionalist paradigm. The Rest of the World are less insular as a body but there is still a significant predominance of alternative (interpretive and radical) research papers. A further analysis of the data shows other smaller groupings. For instance, some 44% of institutional theory papers emanate from Nordic Europe and 38% from the UK and of the sociologically informed papers 32% emanate from the UK and 32% from Australasia. Clearly, schools of PSA research are forming across the world, each adopting a distinctive set of methodological approaches.

Other variables also displayed characteristic distinctions between the two groups. As expected, the research methods used by each group complemented the methodological/theoretical approaches and fell into two distinct patterns which might be simply characterised as quantitative (US) and qualitative (others). The US group dominated those papers using the research methods of hypothesis testing (73% of papers using this method), mathematical analysis (100%), descriptive surveys (84%) and literature reviews (100%). The Rest of the World group dominated in terms of using interviews (98%), document reviews (91%) and archival methods (100%).

Table 9 shows the cross tabulation of author residency and research topic and it is clear that the distinction between the two groups extends to research topics. The US group dominated those papers concerned with capital finance, local taxation, revenue forecasting and risk, all areas where a quantitative approach is readily applied. In contrast the Rest of the World dominated areas where context and qualitative methods are most readily applied such as accountability, governance and NPM. Less obviously this group also dominated in research concerned with financial reporting, accruals and performance management.

To summarise, two major distinct empirical research groups are evident in contemporary PSA research. The US group is predominately using functionalist methodologies, accompanied by positivistic quantitative research methods, to investigate issues amenable to quantitative analysis. In contrast the Rest of the World group are using interpretive and radical/alternative methodologies, with qualitative research methods, to investigate issues amenable to qualitative analysis such as management control and accountability.

6. Contribution of paradigmatic groupings

The contributions of the non-US paradigmatic grouping has been analysed and discussed by Broadbent and Guthrie (1992, 2008) as outlined above. They found the principal research interest to be in the areas of accountability, auditing, PPI/PFI and social, environment and external reporting, and concerns with public infrastructure, governance and risk and performance measurement and management. They also identified areas for future research including more contextually technical accounting research, more empirically informed theorising and more engagement with practice.

This paper will concentrate on the US PSAR and provide a brief review of this literature. The overall position of PSAR research in the US accounting academia is probably most kindly described as latent. The Journal of Accounting and Public Policy recently published a special issue on Government and not-for-profit accounting. The editors of the issue noted that relatively few articles devoted to this subject had been published in the leading academic accounting journals, despite the sector's economic importance. Yet of the 40 submissions less than half were concerned with government (the majority were concerned with charity accounting) as was only one of the papers accepted for inclusion (Baber & Granof, 2009, Volume 28, Issue 6). They exhorted further research, particularly among individuals beginning careers as accounting scholars.

One of the main areas interest to PSA empirical researchers has been budgeting. However, the approaches taken have been different from the more behavioural/contextual approaches outside the US. A particularly interesting area has been to extend the early work of Wildavsky (1975) into modelling of budgets and resource allocation. Reddick (2007) undertook a pooled time series analysis using cross sectional data of 50 states to test the impact of incremental, program, zero-based, and performance-based budgeting on the dependent variables; state total and functional expenditures. He found support for all of these approaches in terms of their impact on state budget outputs and suggested a hybrid form of budgeting, which is a combination of incremental and rational approaches. Berner (2005) found similar results using a cluster analysis on federal data from 1962 to 1995 and suggested the theory of incrementalism needs to be updated. There have been few, if any, such studies outside the US and it would be interesting to know what budget models apply to non-US contexts.

Table 8Cross tabulation of papers categorised by author residency and paradigmatic approach.

Paradigmatic approach	Author residency	Author residency	
	US	Row	
Functionalist	37	29	
Alternative/radical	2	53	
Total	39	82	

Table 9Cross tabulation of papers by author residency and research topic.

Research topic	Author residency	
	US	RoW
General accounting	2	2
General financial accounting	0	2
Financial reporting	0	3
Accruals	2	5
General management accounting	0	5
Budgeting	7	5
Performance management	2	17
Costing	2	5
Auditing	4	5
Accountability/governance	1	17
Capital finance	9	2
Risk	1	1
Revenue forecasting	5	0
Local taxation	1	0
Fraud/corruption	0	1
New public management	0	7
Other	3	5
Total	39	82

Other quantatitive research in budgeting that would benefit from replication and extension in the RoW includes Jordan and Hackbart's (2005) work on the factors which affect implementation success of performance-based budgeting. Using a survey analysis they suggest that program accountability as a goal, rather than budget allocation, makes a stronger foundation for determining performance-based budget success. In addition Burke (2006) undertook research into the contemporary validity of Niskanen's (1971) influential and enduring model of bureaucrats as budget maximizers. Burke undertook an analysis of the factors affecting budget decisions using the American State Administrators Project (ASAP) survey of 3000 state-level agency heads on many policy and administrative topics. He found that rational choice assumptions inadequately characterize bureaucratic budget aspirations and that intentions based in broad public interest and motivations of accountability and transparency tend to reduce, rather than enhance, growth aspirations in state-level bureaucrats. These functionalist, quantitative studies are extending our knowledge of issues of accountability and complement the findings of the alternative research in this area.

A number of US studies have investigated the implementation of costing and performance management systems. For instance, Cavalluzzo and Ittner (2004) researched the implementation of Performance Measurement Innovations by the US General Accounting Office, using survey data. They found that organisational factors have a significant positive influence on measurement system development and use and that technical issues play an important role in system implementation and use. They also suggest that some of the technical and organisational factors interact to influence measurement system implementation and outcomes, often in a complex manner. Pizzini (2006) researched the relationship between cost-system design, managers' evaluations of the relevance and usefulness of cost data and financial performance using a sample of 277 US hospitals. They found that managers' evaluations of the relevance and usefulness of cost data are positively correlated with the extent to which systems can provide greater cost detail, better classify costs according to behaviour, and report cost information more frequently. Again these papers, both published in one of the world's leading accounting research journals, show that valuable information about accounting and performance system implementation can be gained from a functionalist approach and can complement the findings from alternative case studies, as well as being of direct practical use. However, this knowledge is hampered in being solely US based and replication in other settings would be very helpful.

Another popular area for US PSAR is auditing. These studies are often quantitative analyses of surveys which identify various statistical relationships. For instance, Samelson, Lowensohn, and Johnson (2006) researched the determinants of perceived audit quality and auditee satisfaction in local government in a study of 302 finance directors, replicating similar work in the private sector. They found that auditor expertise, responsiveness to client, professionalism, understanding of client systems, and study of internal controls was positively associated with perceived audit quality. Interestingly they also found that big 5 firms were not associated with higher levels of perceived audit quality. Lowensohn, Johnson, Elder, and Davies (2007) extended this research to investigate auditor specialization, perceived audit quality, and audit fees in local government. They found that that specialization is positively associated with perceived audit quality but not with audit fees.

Other researchers have investigated data bases of audits such as Carslaw, Mason, and Mills (2007) who examined audit timeliness of school district audits by examining 36,367 school district audit reports from the Federal Audit Clearinghouse data base. They found that delayed financial reports are positively associated with larger district size, government auditors, sole practitioner auditors, and problems with internal controls and qualified reports. Friedberg and Lutrin (2005) used data derived from reports supplied by The National Association of Auditors and Comptrollers to study the types, orientation, organization form, auditor independence, auditor resources and corrections of errors and abuses in state audits. A similar analysis of the qualifications, diversity and workplace practices of higher education internal audit departments was undertaken by Fischer and Montondon (2005).

Not surprisingly there are several US PSAR studies which directly use agency theory to inform their research. For instance Forgione, Vermeer, Surysekar, Wrieden, and Plante (2005) take an agency theory perspective to examine whether the agency theory perspective helps to explain the impact of Diagnostic Related Group (DRG) -based healthcare payment systems on the cost and quality of healthcare services. This paper uses the data from the OECD Health Data CD-ROM hospital payment system (containing 1200 variables for the 30 member countries in the OECD) to explain the impact of DRG-based payment systems on the cost and quality of healthcare. They use agency theory to hypothesise that DRGs provide an incentive to shift costs and services to account for changes in payment mechanisms and found that OECD adopters of DRG-based systems did incur significantly higher outpatient costs than non-adopters, consistent with the prediction. Such approaches can only complement and extend our understanding of DRGs from alternative methodology in this area.

Another example of an empirical paper using agency theory is Giroux and Willson (2006), who researched executive compensation in Texan independent school districts using structural equation modelling. They found that superintendent salary can be best explained with three direct effects (enrolment, teacher salary, and the local tax percentage) and two indirect effects (white percentage and percent economically disadvantaged). Performance did not influence salary, suggesting that future superintendent compensation contracts should consider financial- and education-based performance measures. Executive compensation is a significant area of concern in all public sector organizations and such research in different contexts can make a valuable contribution to the design of such contracts.

As can be seen many of the US studies are based on interrogation of various databases. Such databases exist all over the world and comprise an enormous body of knowledge, yet lie virtually untouched by accounting researchers. For instance in the UK there is a huge amount of useful data held by UK National Statistics, the National Audit Office, the Audit Commission, the NHS, and the CIPFA Statistical Information Service amongst others. It seems a pity that the opportunities for valuable research offered by these databases is wasted due to their quantitative, rather than qualitative nature.

There is an emerging interest in US PSAR in moving away from research informed by traditional economic theory that characterizes individual decision-makers as rational, self-interested, utility maximizers towards New Organisational Economics. The JPBAFM organized a Symposium on the New Organisational Economics of Public Financial Management in 2006, publishing five papers. The editors noted that, 'Where the old economics attributed public sector outcomes to transaction costs, principal-agent relationships, information asymmetry, goal-displacement, political oversight, and other processes, this "new" organisational economics emphasizes negotiation, routine, benevolence, transparency, accountability, and other uniquely "public" aspects of budgeting and financial management' (Carroll & Marlowe, 2006, pp. 194–195). The four papers published as a result illustrate the range of the new approaches. The first paper was Burke (2006) outlined above. The second by Rivenbark (2006) offered an alternative to the traditional framework of profit maximization to explain public sector performance and service delivery improvement and used a case study analysis. The third by Robbins and Miller (2006) was a study of the motivations, goals and contexts underlying public officials' choices to use tax incentives for economic development and used an experimental approach based on a gaming model. The fourth paper by Stalebrink and Stocco (2006) used theoretical contributions from new institutional and Austrian economic theory to provide greater theoretical explanation of public sector investment programs. Whilst still firmly within the functionalist paradigm these papers represent a significant shift towards alternative methodologies and pay particular attention to context. Again the editors noted, 'this contemporary research makes a noteworthy contribution to our knowledge and understanding of the complex organizations comprising our public sector (Carroll & Marlowe, 2006, p. 196).

A significant number of US PSAR papers were concerned with local revenue forecasting and aspects of local taxation and capital finance. Undoubtedly these arise from a combination of the US-specific structure of local and state government funding and the amenability of these subjects to quantitative researchers. A significant percentage of such funding is raised by local sales taxes in the US, a difficult source to predict. There is also a strong local government bond market in the US for which issues of pricing and risk are important. This research may well be of interest to other counties which face similar funding problems.

A final aspect of interest to all PSAR researchers is the importance of symposia to US PSAR. The JPBAFM regularly publishes papers emanating from such symposia and during the survey period these included New Organisational Economics; The Evolution of Governmental and Nonprofit Accounting Education; Public Financial Management; Corruption on the Global Front; Public Budgeting and Financial Administration in China; Healthcare Policy, Financing and Economics; Management and Policy of State and Local Government Revenue Forecasting and State-Supported Gaming in America. These symposia may represent a development for other PSA researchers to focus research and to encourage more interaction with practitioners.

7. Conclusion - consequences of paradigmatic insularity and extending the global PSA research agenda

When viewed globally, PSA research comprises a broad set of methodologies and topics covering the range of research approaches found across the social sciences. Moreover, many of the concerns about the lack of theoretically informed research expressed by Broadbent and Guthrie (1992, 2008) seem to be disappearing with an identifiable shift in emphasis in contemporary research away from description and towards such research. This was first noted by van Helden (2005) and this current analysis has shown an even greater shift towards theoretically informed empirical research.

However a number of important issues emerge from this analysis which need to be addressed. The first is that the broad range of approaches is not evenly distributed across the world, but located in the two geographic paradigmatic bunkers. Williams et al. (2006) in their study of the winnowing away of behavioural accounting research in the US establish how one

paradigmatic approach can come to dominate accounting research to the detriment of an entire field of study. They also suggest that such dominance can lead to stagnation within the discipline and exhort the need for methodological diversity, 'the practice of accounting as an activity particularly recommends against univocality in how we understand it' (p. 814). Whilst their concern was with the univocality of US accounting research the absence of positivistic PSAR elsewhere, could be evidence of a potential for developing a similar stagnation.

Merchant (2008) offers a different perspective on alternative methodological approaches, from the standpoint of a mainstream (but sympathetic) US researcher. He criticises alternative research for not adequately identifying and communicating its contributions. He accepts that positivist research is blind to important issues but that it is making progress and adapting its theoretical approach. However both paradigmatic approaches are likely to develop if they work together rather than in isolated, confrontational opposition. He suggests closer cooperation:

'The positivists' research findings should also be incorporated into the (alternative) research agenda. Mainstream and (alternative) researchers should not be enemies. They have the same goal, to create knowledge, and on many of the same topics. There is considerable overlap between the literatures, and these literatures should be informing each other. You should not ignore the positivists' writings. An interdisciplinary, multi-method approach to research should lead to new insights. (Merchant, 2008, p. 907)

The existence of two main, geographically distinct groups undertaking distinctively different PSA research in terms of both methodology and topics certainly leads to weaknesses in generalising the results of both groups. For instance there are several opportunities for extending the US PSAR into other contexts as outlined above. These include such areas as modelling of budgets and resource allocation, analyses of the factors which affect implementation success of costing, performance management systems and performance-based budgeting, aspects of auditing and the use of agency theory to inform empirical studies in settings beyond the US. Non US researchers are also encouraged to take up the opportunities offered by the interrogation of existing databases. Conversely, there are significant opportunities for US PSAR researchers to undertake alternative research, whether it be testing the existing interpretive and alternative findings beyond Europe, Australasia and Canada or research in new areas. However, as Merchant (2008) points out this is likely to be a difficult task given the hegemony of mainstream research in the US.

There is also a danger of paradigmatic isolationism closing down possibilities for researchers in general. Khalifa and Quattrone (2008) and Williams et al. (2006) emphasise the role of academic elites and journal Boards, as well as that of doctoral schools, in establishing paradigmatic isolationism. Certainly, early career US PSA researchers and to a lesser extent such researchers in other countries may perceive that there is only one way to undertake research, particularly if they wish to be published. This limits the development of the research body and perpetuates narrow views as to what constitutes rigorous PSA research to the detriment of all. More acceptance and encouragement of alternative methodologies by established researchers and journal editors would enable a more vibrant culture to develop.

As outlined in the introduction, another possibility for extending PSA research lies in the emerging interest in the broader accounting research community, in combining theories, methodologies and methods across paradigms. There has recently been a vigorous debate about the role and nature of interpretive accounting (Ahrens et al., 2008; Armstrong, 2008; Kakkuri-Knuuttila, Lukka, & Kuorikoski, 2008). Whilst it is not the purpose of this paper to engage in this debate, one of its outcomes is the emerging view that the distinction between positivist and interpretive approaches is far from clear. If so, the philosophical and methodological objections to multiparadigmatic approaches may be dissolving. Modell (2009) offers a practical way forward to such approaches and advances a critical realist approach to mixed methods research which is a 'potential way of bridging the polarized positions of the functionalist and interpretive paradigms in organisation and management studies (p. 209). Brown and Brignall (2007) explored the use of such an approach in the study of UK university central administration services. They concluded that dual methodology research may be complementary and assist the development of a unified body of knowledge. It is hoped PSAR researchers further explore such approaches in future research and that multiparadigmatic methodologies may lead to a deeper and more comprehensive understanding of the subject area.

In addition to the issue of paradigmatic isolationalism in PSAR, other important issues arose from the analysis. One such concern is the dominance of English speaking and North European based research schools, which provided 88% of the papers in this analysis. This is largely due to the position of these geographical areas in contemporary academia in general, as well as the use of English language in the journals included in the study. However, it is still a concern that large parts of the world are not engaged with PSA research and our understanding of PSA in these areas is woefully limited. Indeed in many developing countries it could be argued that their public sectors are even more important than those where research is vibrant, concerned as they are with issues of fundamental survival. Some of the most urgent issues in the world today are concerned with the alleviation of poverty and the public sector has a principal role to play. Accounting is a vital ingredient in this agenda and PSA can make a significant contribution by addressing such questions as what are the most effective mechanisms for allocating resources, how can performance management be improved in developing economies, and what is the role of audit in ensuring good governance and addressing issues of corruption. Such questions are of great concern in the development economics literature but as yet there has been little contribution from the PSA research community. It is also incumbent on the research active world to assist in the development of research schools and PSA research in other parts of the world to address this shortcoming and again to develop a truly comprehensive understanding of PSA.

A concern for all PSA researchers is the continuing marginalisation of PSA research in the mainstream accounting journals. As can be seen above in the three year period 2005–2007 there were only nine PSA papers in AOS, five in MAR, four in the EAR and none at all in BAR. In the US there were only five in JAPP which was identified as one of the principal PSA journals by

Lowensohn and Samelson (2006) and none at all in the other leading US journals. As the theoretical and empirical content of PSA research continues to improve it is hoped that more papers will appear in these journal and that PSA research, already well established on the conference circuit, becomes more established in leading mainstream journals.

For a subject such as PSA, concerned with the practice of accounting, it is surprising and remiss, that there is relatively little engagement with the accounting practice community. This issue was also raised by Broadbent and Guthrie (1992, 2008), but has been highlighted by the current analysis. For instance, only 8% of the papers were concerned primarily with accounting issues per se, rather than economic or contextual analysis. Ironically, this issue probably arises from the demands of academia to produce research which is methodologically rigorous, as indeed is argued above. However, the practice community is more concerned with practical problems. Indeed, the current analysis omitted the JGFM, despite it being rated fourth in Lowensohn and Samelson's (2006) analysis of academic journal quality, on the grounds that it is directed more at a practitioner readership than an academic one. As noted above this high rating may be evidence of a closer relationship between PSA researchers and practitioners in the US than in the rest of the world. It is difficult to see how this dilemma can be overcome but perhaps adopting the US practice of academics contributing more to practice journals (such as Public Finance and Public Money and Management in the UK) together with the establishment of series of symposia linked to journal publication, would help.

Related to the lack of engagement with practitioners is the lack of engagement with public policy implementation. Accounting researchers have a great deal of expertise to offer in this area and from the personal experience of the author there is large demand for such expertise. Again in the US, there are journals dedicated to this area such as the American Journal of Evaluation, Evaluation Review and Evaluation: The International Journal of Theory, Research and Practice, yet very rarely do PSA researchers publish in them, nor is there an equivalent journal outside the US. It is also virtually impossible to publish papers in this area in the PSA journals. Such research also engages PSA researchers in multidisciplinary research, another contemporary lacuna. Again, this type of research tends to be undervalued by the PSA and broader accounting academic community, yet has much to offer in terms of a deeper understanding of our own subject and contributing to a broader understanding of the public sector as a whole.

In summary, although the analysis of publications shows a vibrant research community in PSA using a broad set of methodologies and topics, there are still some major issues of concern.

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