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**THE USE OF MIXED METHODS ACROSS
SEVEN BUSINESS AND MANAGEMENT FIELDS**

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THE USE OF MIXED METHODS ACROSS SEVEN BUSINESS AND MANAGEMENT FIELDS

ABSTRACT

Business and management disciplines draw from a wide array of theoretical frames and employ an even wider array of methodological approaches in the conduct of management inquiry. Quantitative methodologies and qualitative methodologies have now been joined by a third methodological movement, mixed methods. Mixed methods has now become a legitimate methodological movement with a growing body of theoretical and conceptual frameworks, seminal mixed method theorists, publications and academic recognition and legitimation. The use of mixed methods is particularly popular in the social and behavioural sciences, education and health, nursing and medicine. This paper maps the rise of this third methodological movement before introducing Creswell and Plano Clark's (2007) discipline acceptance levels for mixed methods. As a means to gauge the level of acceptance of mixed methods in management a synthesis of six large scale methodological scans across seven management fields will be presented. The fields covered by these studies include: marketing; international business; strategic management; organisational behaviour; operations management; entrepreneurship and; human resource management. The paper concludes with a discussion of the implications for developing mixed methods research capacity within and across management disciplines and future research to this end.

Keywords: mixed methods, management research, qualitative research, quantitative research

INTRODUCTION: MIXED METHODS AS A METHODOLOGY

Mixed method research has now become established as a legitimate methodological choice and is utilised by many academics and researchers from across a variety of discipline areas. However, there would appear to be no one single definition of mixed methods as pointed out by Thurston, Cove & Meadows (2008, p. 3) 'Mixed methods studies can either combine methods from different paradigms or use multiple methods within the same paradigm, or multiple strategies within methods'. The *Journal of Mixed Methods Research* (2006), in its call for papers defines mixed methods as 'research in which the investigator collects, analyses, mixes, and draws inferences from both quantitative and qualitative data in a single study or a program of inquiry'. Creswell and Plano Clark (2007, p. 5) define mixed methods as follows:

Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems that either approach alone.

Creswell and Plano Clark (2007) mapped a brief history of mixed methods research and its evolution to date and have posited four, often overlapping, time periods in the evolution of mixed methods. These four time periods are the; Formative period (1950s - 1980s); Paradigm debate period (1970s - late 1990s); Procedural development period (late 1980s – 2000); and the Advocacy as a separate design period (2000+). Prominent writers and mixed methods theorists have emerged and have been leading the conceptual evolution of the movement (Greene and Caracelli 1997; Mingers and Gill 1997; Bazeley 2008; Creswell 2003; Tashakkori and Teddlie 2003; Mertens 2005; Bergman 2008; Bryman 2008). The interest in mixed methods has seen the recent emergence of several publications including academic journals, chapters within research texts and research texts themselves that are dedicated to mixed methods. The most comprehensive publication of mixed methods to date has been the edited *Handbook of Mixed Methods in Social and Behavioural Research* (Tashakkori & Teddlie 2003). A second edition is due for release in 2010. In January 2007 the first issue of the *Journal of Mixed Methods Research* was published and this was followed by the first issue of the *International Journal of Multiple Research Approaches* in October 2007. In 2010 a new online journal, *The International Journal of Mixed Methods in Applied Business and Policy Research*, will publish its first issue. A very practical guide to the design and conduct of mixed methods research was published in 2007 (Creswell and Plano Clark 2007) along with other texts focused solely on mixed methods (Greene 2007; Bergman 2008; Andrews & Halcomb 2009; Teddlie & Tashakkori 2009).

In the field of management research, Mingers (1997) and Mingers and Gill (1997) have been strong advocates for multimethodology or pluralism, as has Currall and Towler (2003) and Bazeley (2008). This paper analyses six studies of the use mixed methods across management disciplines. Similar studies have been conducted in the fields of counselling (Hanson, Creswell, Plano Clark, Petska & Creswell 2005), qualitative research conducted in Switzerland (Eberle & Elliker 2005), social and human sciences (Plano Clark 2005), the social sciences (Bryman 2008) and evaluation research (Greene, Caracelli & Graham 1989). All providing empirical evidence of the extent of utilisation of mixed methods in contemporary research across an array of disciplines. ‘Today, we see cross-cultural international interest, interdisciplinary interest, publication possibilities, and public and private funding opportunities for mixed methods research’ (Creswell and Plano Clark 2007, p. 18).

ACCEPTANCE LEVELS OF MIXED METHODS

Creswell and Plano Clark (2007) have devised a framework for judging the current level of acceptance of mixed methods within disciplines and across cultures, ‘researchers can use this list to develop a sense of the level of acceptance of mixed methods research in a specific discipline’ (2007, p. 178). The checklist developed is framed by three levels of acceptance: minimal; moderate and; major. These three levels are benchmarked by the following:

Minimal Acceptance

- Awareness within the discipline of qualitative research
- Publication of actual mixed method studies in discipline-based journals
- Graduate students using mixed methods in dissertation

- research
- Discussions in journals about the need for mixed methods
- Mixed methods research discussed at professional conferences
- Moderate Acceptance**
 - Leaders in the discipline advocating for the use of mixed methods
 - Workshops on mixed methods research in forums dedicated to the discipline
 - Funding agencies supporting mixed methods research
 - Methodological discussions of mixed methods in journals devoted to the discipline
- Maximum Acceptance**
 - Special issues of a journal focusing on the use of mixed methods in the discipline
 - Publication of mixed methods studies in top discipline-based journals
 - Course on mixed methods research as part of graduate research training programs

Source: Creswell and Plano Clark (2007, p. 179)

The *International Journal of Multiple Research Approaches* has issued two Special Issues of the journal with direct relevance to this topic. In 2009 a Special Issue: Mixed Methods for Novice Researchers was published. Currently a call for papers for a Special Issue: Mixed Methods in Business and Management is open and due for publication in 2011. An aim of this paper is to gauge the use and acceptance of mixed methods research within several business and management fields, as represented by the six large scale studies chosen. In consideration of these issues, the following research questions were posited:

RQ1: What does the current research on the use of mixed methods across management fields reveal?

RQ2: What is the acceptance level of mixed methods across specific management disciplines?

METHODOLOGY

The methodology employed for this study involved synthesizing secondary data sets from large scale methodological scans of business and management discipline journals. These studies employed content analysis or systematic review methods to quantitize the qualitative data by providing descriptive frequencies of the conceptual (non-empirical), quantitative, qualitative and mixed methods articles within the selected journals. Table 1 provides details of the business and management fields, number of journals analysed and the total number of years covered by each sample, for each of the studies. Note the Molina-Azorin (2008) study covers operations management and entrepreneurship.

Table 1: Summary of samples from each study

STUDY	DISCIPLINE	No# of Journals	Time Span	No# Years
Hanson & Grimmer (2005)	Marketing	3	1993-2002	10
Hurmerinta-Peltomaki and Nummela (2006)	International Business	4	2000-2003	4
Molina-Azorin (2008)	Operations Management	1	2003-2007	5
Molina-Azorin (2008)	Entrepreneurship	2	2003-2007	5
Molina-Azorin (2009)	Strategic Management	1	1997-2006	10
Molina-Azorin & Lopez-Fernandez (2009)	Organizational Behaviour	1	2003-2008	6
Grimmer & Hanson (2009)	Human resource Management	1	1998-2007	10

Source: Hanson and Grimmer (2005); Hurmerinta-Peltomaki and Nummela (2006); Molina-Azorin (2008); Molina-Azorin (2009); Molina-Azorin & Lopez-Fernandez (2009); Grimmer & Hanson (2009)

Table 2 displays the samples for each business and management field from the six studies for the calendar year time span of the analysis. The studies span a calendar year timeline from 1993 to 2008, which covers two of the time periods identified by Creswell and Plano Clark (2007) in the evolution of mixed methods as a movement: Procedural development period (late 1980s – 2000); and the Advocacy as a separate design period (2000+).

Table 2 Time span of study samples

Study	1993	94	95	96	97	98	99	2000	01	02	03	04	05	06	07	08
Marketing																
Int. Business																
Strategic Mngt																
Org. Behaviour																
Operations Mngt																
Entrepreneurship																
Human Resource M																

Source: Hanson and Grimmer (2005); Hurmerinta-Peltomaki and Nummela (2006); Molina-Azorin (2008); Molina-Azorin (2009); Molina-Azorin & Lopez-Fernandez (2009); Grimmer & Hanson (2009)

Table 3 documents the coding systems employed by each study to categorise the journal articles. As can be seen from Table 3, several authors are replicating their own original studies across other business and management fields. Each of the studies has chosen a four item coding system with very similar parallels, enabling a more reliable synthesis of the studies.

Table 3 Coding categories utilised for each study

STUDY	DISCIPLINE	CODING CATEGORIES
Hanson & Grimmer (2005) Grimmer & Hanson (2009)	Marketing Human Resource Management	Theory/opinion/comment Quantitative research Qualitative research Mixed quantitative/qualitative research
Hurmerinta-Peltomaki and Nummela (2006)	International Business	Conceptual articles Quantitative studies Qualitative studies Mixed methods studies
Molina-Azorin (2009) Molina-Azorin & Lopez-Fernandez (2009) Molina-Azorin (2008) Molina-Azorin (2008)	Strategic Management Organizational Behaviour Operations Management Entrepreneurship	Non empirical Empirical: <ul style="list-style-type: none"> • quantitative • qualitative • mixed method

Source: Hanson and Grimmer (2005); Hurmerinta-Peltomaki and Nummela (2006); Molina-Azorin (2008); Molina-Azorin (2008); Molina-Azorin & Lopez-Fernandez (2009); Grimmer & Hanson (2009)

Limitations

The synthesis of these studies has limitations related to the different discipline coverage and differences in the sample sets. Table 1 displays the differences in terms of the number of journals utilized in each study and the number of years of coverage for each study. Table 2 provides a visual depiction of the calendar year coverage of each study. As a consequence limitations exist for making comparable generalizations. This is further complicated by the fact that mixed methods is an evolving methodological movement and it would be expected that the use of mixed methods may increase from 2000. Nonetheless, a synthesis of the findings from the studies has provided some insight into the use of mixed methods across business and management fields. As a means of combating some of these limitations this

study could be enhanced by complementary qualitative analysis of the mixed methods articles identified in each of the six studies. Such qualitative analysis could involve investigating each study to determine whether mixed methods theoretical frameworks, concepts and designs were explicitly utilized and what levels of data integration may have been achieved. The Hurmerinta-Peltomaki and Nummela (2006); Molina-Azorin (2008); Molina-Azorin (2009); Molina-Azorin & Lopez-Fernandez (2009) studies do undertake further analysis of the mixed methods articles by further quantizing the mixed methods articles using different frameworks or classification tools. The Hurmerinta-Peltomaki and Nummela (2006) study also undertook some qualitative analysis of the mixed methods papers by determining the levels of value-added potential for mixed methods studies. The Hanson and Grimmer (2005) study double coded the mixed methods studies to determine the primary orientation of the studies (quantitative or qualitative) or whether they were triangulated. The Grimmer & Hanson (2009) study further analysed the articles according to the main data collection methods used and in addition to this analysed the country of origin of the research being reported and the country of origin of the primary author. The scope of some of the methodological scans could be broadened to encompass more discipline specific journals and the fields covered could also be expanded. An international collaborative project is being planned to undertake this in 2010 across the fields of: human resource development; human resource management; operations management; project management; and marketing.

STUDIES INVESTIGATING THE USE OF MIXED METHODS IN BUSINESS & MANAGEMENT RESEARCH

There is a small but growing body of research that is researching the incidents and usage of mixed methods in management research. The focus of this paper is the synthesis of six large scale studies of the use of mixed methods across seven business and management fields. All six studies aim to discover the extent and current role mixed methods plays in the business/management fields through a process of systematic review of empirical studies. The first study was undertaken by Hanson and Grimmer (2005) and focused on three marketing journals. The second was conducted by Hurmerinta-Peltomaki and Nummela (2006) and involved the review of articles from four major journals in international business. The third study investigated the field of strategic management (Molina-Azorin 2009). Molina-Azorin (2008) has also studied the use of mixed methods in the fields of operations management and entrepreneurship and joined a colleague to study mixed methods in organizational behaviour research (Molina-Azorin & Lopez-Fernandez 2009). Grimmer and Hanson (2009) teamed up again in 2009 to conduct a methodological scan of articles from a journal in the field of human resource management.

Hanson and Grimmer (2005) undertook a content analysis of 1,195 journal articles from three prominent marketing journals from 1993-2002 (*Journal of Marketing*; *European Journal of Management*; *Journal of Services Marketing*). The purpose of this study was to determine the mix of qualitative and quantitative research published in the field of marketing. Of the 1,195 articles 734 were coded as empirical (quantitative, qualitative, mixed methods). Quantitative articles represented 46% of empirical articles (n=553), qualitative articles represented 6.5% of empirical articles (n=76) and mixed methods represented 9% of empirical articles (n=105). The authors identified 105 mixed quantitative/qualitative articles and coded these further to

determine the primary orientation of the research as either: Quantitative; qualitative; or triangulated. They found 74% of these articles were primarily quantitative (qualitative data not reported but used in design of the quantitative component). The articles coded as primarily qualitative represented 12% (quantitative data represented in a secondary manner) of the articles and those articles coded as triangulated (genuinely multi-method) were 13%. This group represented 1.1% of all the articles within the larger sample (n=1,195) (Hanson & Grimmer 2005, p. 66). The authors conclude that the continued dominance of quantitative research in marketing is linked to historical, social and practical arguments within the field.

The Hurmerinta-Peltomaki and Nummela (2006) study focused on articles within the following four international business journals between 2000 to 2003: 1) *International Business Review* (IBR), 2) *Journal of International Business Studies* (JIBS), 3) *Journal of World Business* (JWB), 4) *Management International Review* (mir). The articles were classified under four main categories: conceptual articles; qualitative studies; quantitative studies; and mixed method studies. The researchers screened 484 articles and found 394 articles contained empirical research designs (qualitative, quantitative and mixed method). Quantitative studies represented 68% of empirical articles (n=269) and qualitative studies represented 15% of empirical studies (n=57). The study found that 68 (17 %) of the 394 empirical studies utilised a mixed method. These 68 studies were then further categorised/coded according to a classification tool inspired by mixed methods typologies designed by Creswell (2003) and Tashakkori and Teddlie (1998). The authors focused on the extent of mixed methods in international business research and the potential of mixed methods to add value. The authors state that 'International business is a multi-faceted area of research, crossing national, cultural, organisational and personal boundaries, and inspiring complicated research questions' (2006: 440). They argue that narrow methodological approaches would reveal only a small piece of the reality within this complex field.

Molina-Azorin (2009) studied the use of mixed methods in strategy research as represented in articles from all issues of the *Strategic Management Journal* from 1997 to 2006. A total of 676 journal articles were reviewed and of these 570 (84%) were categorized as empirical. Of these empirical articles over three quarters were quantitative 77% (n= 441), 17% (n=99) of articles were mixed methods and 5% (n=30) were qualitative. The majority of mixed methods articles were dominated by the quantitative aspect of the research with the qualitative methods playing a supportive role (Molina-Azorin 2009, p. 51). Nonetheless, this study illustrates that there is a level of usage and acceptance of mixed methods within the strategic management field. In addition, the author coded the mixed methods studies identified to determine priority (equivalent importance of the quantitative and qualitative parts, or different importance with a dominant method), implementation of data collection (simultaneous or sequential), design type using the two previous characteristics, and purpose using Greene, Caracelli and Graham's (1989) classification.

Molina-Azorin (2008) reviewed three journals: *Journal of Operations Management*; *Entrepreneurship Theory and Practice* and the *Journal of Business Venturing* (combined) from 2003-2007. The results of the findings for the latter two were combined to represent the field of entrepreneurship. In the field of operations management, of the 227 articles 187 (82%) were coded as empirical (quantitative, qualitative, mixed methods). Quantitative articles represented 78% of empirical articles (n=146), qualitative articles represented 12% of empirical articles (n=23) and mixed methods represented 10% of empirical articles (n=18). In the field of entrepreneurship, taking into account the two journals, of the 338 articles published, 235 (70%) were empirical studies (quantitative, qualitative, mixed methods).

Specifically, quantitative articles represented 76% of empirical articles (n=178), qualitative articles represented 16% of empirical articles (n=37) and mixed methods represented 8% of empirical articles (n=20). In addition, the author coded the mixed methods studies identified to determine priority, implementation of data collection, design type and the main mixed methods purpose.

The Molina-Azorin and Lopez-Fernandez (2009) study covered two journals: *Journal of Organizational Behaviour* and the *Journal of Addictive Behaviors*. The findings from the latter have not been included in this study as it represents a very specific area of research within the broader field of behavioural psychology. A total of 318 journal articles were reviewed for the *Journal of Organizational Behaviour*, from 2003-2008. The analysis of the empirical articles (n=231) found that quantitative articles were the most frequent (85%), followed by qualitative and mixed methods both at 7.5%. The authors undertook further analysis of the mixed methods articles utilizing the same characteristics as Molina-Azorin (2008, 2009).

Grimmer and Hanson (2009) undertook a similar study to their 2005 study and analysed 1,195 journal articles from the *International Journal of Human Resource Management* from 1998-2007. Of the 828 articles reviewed theory/opinion (conceptual) articles represented 24%, quantitative articles represented 49%, qualitative articles represented 16% and mixed methods represented 11% of all articles. The authors also conducted further analysis of the articles by determining the main data collection method used, the justification for the use of qualitative data collection methods, in which country(s) the research was conducted and the country of origin of the primary author. A major finding of the study relates to these latter analyses. Two camps in human resource management research were posited; USA/Canada/China camp and the UK/Australia camp. The USA/Canada/China camp is characterized by authors from these countries predominantly publishing quantitative studies and the UK/Australia camp is characterised by authors from these countries who mix quantitative, qualitative and mixed research methods.

For the UK, there was found to be a mix of quantitative, qualitative and mixed research methods (45.20%, 33.33% and 21.47% respectively). A broadly similar pattern was evident for Australia. In stark contrast, 86.67% of USA authors published quantitative studies and only 5.33% were qualitative and 8% were mixed. Broadly similar patterns were evident in China and Canada. The USA numbers are quite remarkable and indicate an extremely tight research culture that seems to reject qualitative and mixed research: a culture no doubt held together in a very large country by training and the desire for publication-related tenure in a highly competitive system (Grimmer & Hanson 2009, p.12).

Apart from these reviews of general business and management fields, Molina-Azorin (2007) reviewed the use of mixed methods research in a specific strategic theory, the resource-based view. In addition to these large scale systematic reviews of journals are smaller journal based studies (Rocco et al. 2003; Bazeley 2008; Cameron 2010), methodological scans of management conference papers (Cameron 2008) and Doctor of Business Administration (DBA) theses (Cameron 2008; Cameron & Miller 2010).

FINDINGS

Results from the six studies have been synthesized in Tables 4 and 5. Table 4 presents the results from the six studies using the 4 code categories: conceptual (non-empirical); quantitative (QUANT); qualitative (QUAL); and mixed methods (MM). The Grimmer & Hanson (2009) study could not be included in the overall total as no raw figures were provided.

Table 4: Summary of methodological scans of business and management discipline journals

PAPER	JOURNAL/DISCIPLINE	CONCEPTUAL	QUANT	QUAL	MIXED METHOD	TOTAL
Hanson & Grimmer (2005)	<i>Journal of Marketing</i> (n=305) <i>European Journal of Marketing</i> (n=544) <i>Journal of Services Marketing</i> (n=286) 1993 – 2002	461 (38%)	553 (46%)	76 (7%)	105 (9%)	1,195 (100%)
Hurmerinta-Peltomaki and Nummela (2006)	<i>International Business Review</i> <i>Journal of International Business Studies</i> <i>Journal of World Business</i> <i>Management International Review</i> 2000 - 2003	30 26 25 9 90 (19%)	82 117 28 42 269 (55%)	14 5 30 8 57 (12%)	17 17 16 18 68 (14%)	143 165 99 77 484 (100%)
Molina-Azorin (2009)	<i>Strategic Management Journal</i> 1997 – 2006	106 (16%)	441 (65%)	30 (4%)	99 (15%)	676 (100%)
Molina-Azorin & Lopez-Fernandez (2009)	<i>Journal of Organizational Behaviour</i> 2003-2008 (This paper also analysed the <i>Journal of Addictive Behaviors</i> but those figures were not included here)	87 (28%)	197 (62%)	17 (5%)	17 (5%)	318 (100%)
Molina-Azorin (2008)	<i>Journal of Operations Management</i> 2003-2007 <i>Entrepreneurship Theory and Practice</i> and <i>Journal of Business Venturing</i> -combined 2003-2007	40 103 143 (25%)	146 178 324 (57%)	23 37 60 (11%)	18 20 38 (7%)	227 338 565 (100%)
TOTAL ALL		887 (27%)	1,784 (55%)	240 (8%)	327 (10%)	3,556 (100%)
Grimmer & Hanson (2009)	<i>International Journal of Human Resource Management</i> 1998-2007 Only percentages were provided for each category of article. The results from this article could not be included in the Total figures	(24%)	(49%)	(16%)	(11%)	828 (100%)

Source: Hanson and Grimmer (2005); Hurmerinta-Peltomaki and Nummela (2006); Molina-Azorin (2008); Molina-Azorin (2009); Molina-Azorin & Lopez-Fernandez (2009); Grimmer & Hanson (2009)

Quantitative studies were the most frequent in each of the six studies, ranging from 46%-65% and with an overall 55% for the five studies (Grimmer & Hanson 2009 study excluded). Conceptual/ non-empirical studies were the second most frequent ranging from 16%-38% and with an overall 27% for the five studies. The overall frequency of mixed methods articles across the five studies was 10% and for qualitative articles the frequency was 8%. Although the Grimmer and Hanson (2009) results could not be included in the totals (no raw figures provided). The frequency pattern for this study across the categories was similar with quantitative studies the most frequent (49%), followed by conceptual (24%), qualitative (16%) and mixed methods at 11%. This field had the highest frequency for qualitative articles.

Table 5 provides a synthesis of the empirical studies (quantitative; qualitative; mixed methods) for each of the studies, excepting the Grimmer and Hanson (2009) study which was focused on the field of human resource management.

Table 5: Summary of empirical papers aligned with discipline fields

DISCIPLINE	QUANT	QUAL	MIXED	TOTAL
Marketing <i>3 Journals</i>	553 (75%)	76 (11%)	105 (14%)	734 (100%) (31%)
International business <i>4 Journals</i>	269 (68%)	57 (15%)	68 (17%)	394 (100%) (17%)
Strategic management <i>1 Journal</i>	441 (78%)	30 (5%)	99 (17%)	570 (100%) (24%)
Organizational behaviour <i>1 Journal</i>	197 (85%)	17 (7.5%)	17 (7.5%)	231 (100%) (10%)
Operations management <i>1 Journal</i>	146 (78%)	23 (12%)	18 (10%)	187 (100%) (8%)
Entrepreneurship <i>2 Journals</i>	178 (76%)	37 (16%)	20 (8%)	235 (100%) (10%)
TOTAL	1784 (76%)	240 (10%)	327 (14%)	2,351 (100%)

* Empirical articles = quantitative, qualitative and mixed methods (not conceptual)

Source: Hanson and Grimmer (2005); Hurmerinta-Peltomaki and Nummela (2006); Molina-Azorin (2008); Molina-Azorin (2009); Molina-Azorin & Lopez-Fernandez (2009); Grimmer & Hanson (2009)

From Table 5 it can be concluded that quantitative methods dominates the methodological choice of those empirical articles reported in the journal samples from the chosen

disciplines. Overall, quantitative studies dominate (76%), followed by mixed method studies (14%) and qualitative studies (10%). The highest percentage of quantitative articles was in the field of organizational behaviour (85%), followed by strategic management and operations management (78%), then entrepreneurship (76%), marketing (75%) and international business (68%). Six of these seven discipline fields had percentages of three quarters or more for quantitative studies. Mixed methods came a second to quantitative methods for three of the disciplines: international business and strategic management (17%) and marketing (14%). Qualitative methods came second for operations management (12%) and entrepreneurship (16%) and organisational behaviour had mixed methods and qualitative methods at equal second. The disciplines with the lowest percentages for qualitative methods were; strategic management (5%); organizational behaviour (7.5%); marketing (15%); and international business (17%). Mixed methods had the lowest percentage for organizational behaviour (7.5%); entrepreneurship (8%); and operations management (10%).

CONCLUSION

As a means of discussing the findings the two research questions will be answered:

RQ1: What does the current research on the use of mixed methods across management fields reveal?

The findings from this synthesis of the six studies across seven business and management fields, demonstrates that quantitative studies dominate all seven fields (55% of all articles and 76% of empirical articles in five of the six studies). Nonetheless, mixed methods represents 10% of all articles and 14% of empirical articles in five of the six studies. This is followed by qualitative studies, which represents 8% of all articles and 10% of empirical articles in five of the six studies. Mixed methods would seem to be more frequent in the strategic management and international business (17%) and marketing (14%) fields and the least frequent in entrepreneurship (8%) and organisational behaviour (7.5%). Factors which may need to be considered here is the paradigmatic traditions, age and theoretical foundations of specific research fields and whether qualitative research methods are accepted within the field. The philosophy and paradigmatic preferences of the individual journals and journal editorial boards may also need to be considered as variables in respect to this question.

RQ2: What is the acceptance level of mixed methods across specific management disciplines?

The first two benchmarks for minimal acceptance of mixed methods from the Creswell and Plano Clark (2007) framework are: *Awareness within the discipline of qualitative research* and; *Publication of actual mixed method studies in discipline-based journals*. The studies synthesised in this paper provide evidence to meet these two benchmarks. Although quantitative methods dominate all fields, mixed methods and qualitative methods represent 14% and 10% respectively, of all empirical articles.

The third benchmark for minimal acceptance of mixed methods is: *Graduate students using mixed methods in dissertation research*. The research undertaken by Cameron (2009) and

Cameron & Miller (2010) into the use of mixed methods in Doctor of Business Administration (DBAs) at an Australian university found that 40% of DBA theses from 1997-2008 utilised mixed methods.

The fourth benchmark for minimal acceptance of mixed methods is: *Discussions in journals about the need for mixed methods*. More qualitative analysis would have to be undertaken to be able to address this benchmark. The last benchmark relates to professional conferences: *Mixed methods research discussed at professional conferences*. There is evidence that mixed methods is being discussed at professional management conferences. The European Conference Research Methodology (ECRM) has had a conference track for mixed methods for the last two years (2009 and 2010) and has acknowledged mixed methods in conferences previous to this. The European Academy of Management (EURAM) 2010 Conference has a track and special interest group (SIG) for: Research Methods and Research Practice. The call for papers for this track is inclusive of papers that address new applications of mixed methods. At the 2009 Australian and New Zealand Academy of Management (ANZAM) conference there was a conference workshop on mixed methods.

If the framework for acceptance levels devised by Creswell and Plano Clark (2007) is applied it would seem for the business and management fields covered in this synthesis, there exists at the least, minimal signs of acceptance of mixed methods. There is a possible movement towards moderate acceptance of mixed methods given the special issue of the journal mentioned earlier (*International Journal of Multiple Research Approaches: 2011 Special Issue: Mixed Methods in Business and Management*) and supplementary evidence from other smaller studies (Rocco et al. 2003; Bazeley 2008; Cameron 2008; Cameron 2010; Cameron & Miller 2010).

Future research is planned through an international collaboration to further expand on these studies by broadening the scope of existing studies and the business and management fields covered in these reported studies and by conducting qualitative analysis of the mixed methods articles identified and the philosophical and paradigmatic preferences and traditions of specific fields and associated journals. The evolution of mixed methods as a third methodological movement and its growing acceptance has implications for building research training and capacity within business and management fields through workshops, courses, doctoral symposia and professional development activities within management and business schools and through professional associations. Involvement in interdisciplinary and/or multi method research teams is another valuable avenue for building this capacity.

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