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## Breaking the mold: Research process innovations in purchasing and supply management

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### 1. Introduction

The field of purchasing and supply management (PSM) continues to gain in importance as part of the heightened focus on supply chain efficiency and effectiveness (Park et al., 2016), inter-organizational collaboration for competitive advantage (Soosay and Hyland, 2015) and to tackle society's 'wicked issues' (Williams, 2002: 104). Research stakeholders' expectations are however increasingly focused on research's direct and immediate relevance to, and impact on, practice. To address more practical, broader and often 'messier' problems, PSM scholars are increasingly involved in interdisciplinary projects using diverse theoretical frameworks, and methodologies and techniques developed in other fields. Scholars have argued for the need for interdisciplinary and multi-disciplinary research in PSM (Dubois and Araujo, 2007; Tazelaar, 2007; Sanders and Wagner, 2011) and others go further still in calling for transdisciplinary research (Ramadier, 2004; Wickson et al., 2006). Alongside these pressures for research with greater impact on policy and practice, the need for thought leadership (or blue sky research) is still recognized in some quarters, and value placed on academic/theoretical impact.

The Journal of Purchasing and Supply Management (JPSM) has

always had an inclusive approach, welcoming diversity in researchers' perspectives, methodologies and data collection and analysis techniques. Nevertheless, certain methodological approaches tend to predominate, in particular case-based qualitative and survey-based quantitative studies. This tendency does have advantages, notably specialisation – helping to gradually increase competence and standards. The benefits arising from increasing specialisation and consequent rises in quality are tempered by potential negative outcomes in the form of tightly constrained 'tramline thinking'. The risk is that, as a research community develops ever higher standards and stronger norms, scope of inquiry is reduced, and assumptions are not challenged. Rising pressures to publish and to produce quick practical solutions are likely to reinforce such thinking and reduce appetite for risk taking within the academic community. Clearly, more rigorous research is desirable. But research published in JPSM has to demonstrate significance and originality, as well as rigor (Knight and Tate, 2016). Well-established, rigorous modes of research are widely and effectively used to deliver original and significant findings. They are however not sufficient if PSM scholars are to deliver the challenging agendas called for in recent academic reviews (e.g. Spina et al., 2013; Van Weele and van Raaij, 2014) and by businesses, government and other key stakeholders. For

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the PSM research community as a whole, learning and innovation in the approach to research are essential.

The aim of this special issue is to promote and support such learning and innovation about novel research perspectives, methodologies and techniques (collectively termed ‘novel methods’ hereafter). Novel can mean new to (or very rarely used in) PSM research or it could concern non-traditional perspectives in business scholarship more broadly. Alternatively, it may refer to new combinations of established methods. In essence, scholars are urged to learn from others and import new ideas to PSM research (as illustrated in Fig. 1).

The initial intention was to publish a set of empirical papers reporting research studies that were in some way novel in terms of research process. The call for papers covered all aspects of the research process from philosophical stance to detailed techniques for data collection and analysis. The special issue has evolved to now include both articles with an empirical focus and contributions with a methodological focus. Together, these articles provide new perspectives on some methodologies that are well-established in PSM, import some methods established in other fields, and present some very recent methodological innovations. They cover the use of quantitative and qualitative data, in one case in combination, and primary and secondary data.

There are six research notes, published in JPSM’s Notes and Debates category (Knight and Tate, 2016), selected and developed to complement the empirical contributions. Experts discuss a particular methodology that can help develop research in PSM (see Table 1). They challenge current research practices and norms, and address some of the questions prospective adopters of these novel methods would face. The notes describe how these quantitative and qualitative methods might address new and interesting research questions in PSM. The notes also serve as a teaching resource for researchers, explaining why these methods are appropriate, and providing practical advice on their use.

## 2. The need for novel methods in PSM research

There is a multitude of reasons for bringing new research perspectives, methodologies and techniques to PSM research, but there are two overarching opportunities, underpinned by two key drivers. In terms of opportunities, first, novel methods can help us explore established topics in new ways. Second, a wider repertoire of methods helps us undertake research focusing on new themes relevant to addressing society’s profound challenges (Markard et al., 2012; Ferraro et al., 2015) and aligned with highly dynamic contexts. The first driver of change is *concern*. For engaged PSM researchers (Van de Ven and Johnson, 2006), research process learning and innovation are motivated, at least in part, by a concern for relevance and impact within our increasingly challenging environment. A second important driver for many researchers is *curiosity*; interesting research is motivating in its own right. We seek to address interesting questions (Sandberg and Alvesson, 2011) and produce interesting, original findings (Bartunek et al., 2006; Davis, 1971).

The case for broadening the repertoire of research perspectives, methodologies and techniques deployed in PSM research lies in understanding some of the critical changes we face and associated demands on research process. Consider the following examples, and fields from which PSM researchers might have much (more) to learn.

- *Shifting priorities* – PSM’s roots lie in maximising economic benefit and assumptions of rational decision-making. Perspectives which served us well previously may not do so in settings where social and environmental objectives genuinely compete with profit incentives. In this issue, Pinnington, Meehan & Scanlon<sup>1</sup> show the usefulness

of grounded theory for exploring contested views of value. *What might we learn from sociology?*

- *Blurring boundaries* – It is well recognized that PSM functional, disciplinary and professional boundaries are blurring as PSM experts work as advisors, or in cross-functional and/or interorganizational teams (e.g. Zheng et al., 2007; Kaufman and Wagner, 2017, forthcoming). More dynamic and integrated settings characterized by more negotiation and collaboration highlight the need for methodologies which offer a processual and longitudinal perspective. *What might we learn from organization studies?*
- *The data revolution* – There is an unprecedented rate of data generation (e.g. due to the emergence of global supply chains, geographically dispersed production or material acquisition sites). Increasingly, companies are focused on capitalizing on big data and predictive analytics. The value of data to the business is intrinsically linked to cost savings or increased efficiency through improvements in a process (e.g. procurement- Frost, 2014, Handfield, 2016), or system behavior. *What might we learn from data analytics? How can we use existing or new datasets and modelling methods to gain better understanding?*

Such developments are pushing researchers to adopt approaches which are more processual, longitudinal (Van Weele and van Raaij, 2014), multi-level (Choi and Wacker, 2011), and pluralistic (Quarshie et al., 2016). Researchers are under pressure to scale up, scale out and speed up their research both for these newer domains and themes, and in better established topics.

Most of the empirical contributions in this special issue use novel methods to investigate established PSM topics. They deploy novel methodologies and data collection and analysis techniques rather than novel research perspectives or philosophies. Some of the novel methods presented in relation to established topics are however also highly relevant to new themes, and some contributions allude to shifting perspectives and values among PSM researchers. They demonstrate a range of benefits, all of which can be related to the development of the PSM field or research policy, or both.

## 3. Empirical articles in this special issue

Table 2 provides an overview of the empirical articles included in this special issue. It is a diverse set in terms of the focal topics, as well as the novel methods deployed. The papers and linkages among the papers are discussed below.

Van der Valk, Sumo, Dul & Schroeder present one of the first applications of a new methodology, ‘necessary condition analysis’ – an approach which helps us formally test the everyday notion of whether a factor is necessary in achieving an outcome. Previous methods all assess sufficiency. This contribution highlights how new methods provide new ways of looking at old problems. Necessary condition analysis can provide new insights where prior research has provided conflicting or equivocal evidence.

Chen, Su & Ro also investigate an established area of buyer-seller relationships, but extend Van der Valk et al.’s dyadic view by examining gaps between what the supplier thinks the buyer’s perspective is and what buyer’s perspective really is. They collect data from both sides of the relational exchange, and use a scenario-based experiment with mirrored vignettes. Eckerd’s Notes and Debates contribution reviews the place of experimental methods in PSM research. She concludes by recommending that experiments are best used in combination, with several experiments and/or with other methods. Matopoulos, Bell and Aktas review modelling research and reach a similar conclusion. Experimental and modelling techniques have much to offer in developing PSM knowledge, but the strong emphasis on relevance to practice in this Journal means they are best combined with other techniques.

Several of the papers demonstrate ways in which researchers can

<sup>1</sup> All citations without year of publication refer to contributions in this special issue.

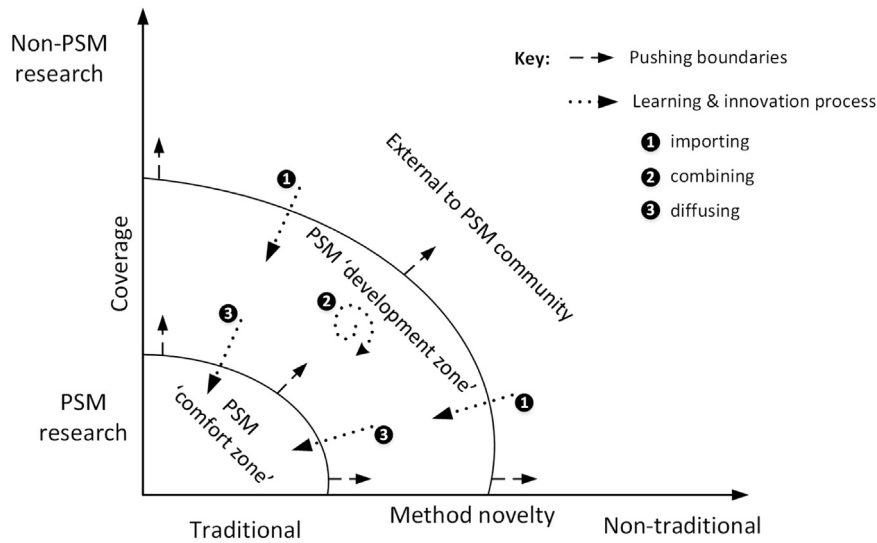


Fig. 1. The PSM research spectrum.

**Table 1**  
Notes and Debates Contributions for this special issue.

Topic	Title	Author (s)	Brief description
Computerized content analysis of textual data	Using manifest content analysis in purchasing and supply management research	Kevin J. Dooley	Describes the use of manifest or computerized content analysis that enables researchers to collect and analyze large amounts of textual data.
Case studies	A call for broadening the range of approaches to case studies in PSM	Anna Dubois Asta Salmi	Elaborates on more diversified approaches to using a case study methodology.
Secondary data	The use of secondary data in purchasing/ supply management (PSM) research	Lisa M. Ellram Wendy L. Tate	Discusses the use of secondary data as a principal or supplemental data source.
Action research	Time to get real: The case for critical action research in PSM	Joanne Meehan Anne Touboulic Helen Walker	Provides an assessment of critical action research to explore real practical problem-centred issues.
Experiments	Experiments in Purchasing and Supply Management	Stephanie Eckerd	Explains how experiments are useful for helping to explain the decisions that occur in practice and facilitate better decision-making.
Modeling	The use of modeling in Purchasing and Supply Management literature	Aristides Matopoulos John Bell Emel Aktas	Defines generic types of models and discusses when each type is appropriate and also indicates the value of empirically informed models.

make better use of data. Van Poucke, Matthyssens & Weeren and Vos, Scheffler, Schieler & Horn use contract data from multiple sourcing projects within a single firm to investigate cost savings in relation, respectively, to early purchasing involvement and to global vs national sourcing. Chen, Dooley & Rungtusanatham use secondary, qualitative

**Table 2**  
Empirical articles in this special issue.

Method (s)	Title	Author (s)
Necessary Condition Analysis	When are Contracts and Trust Necessary for Innovation in Buyer-Supplier Relationships? A Necessary Condition Analysis	Van der Valk, Sumo, Dul & Schroeder
Grounded theory	A Grounded Theory of Value Dissonance in Strategic Relationships	Pinnington, Meehan & Scanlon
Action research	The Action Research Cycle Reloaded: Conducting Action Research Across Buyer-Supplier Relationships	Maestrini, Luzzini, Shani & Canterino
Bayesian estimation of structural equation model and use of contract data	Enhancing Cost Savings Through Early Involvement of Purchasing Professionals in Sourcing Projects: Bayesian Estimation of a Structural Equation Model	Van Poucke, Matthyssens & Weeren
Scenario-based experiment	Can I Read Your Mind? Perception Gaps in Supply Chain Relationships	Chen, Su & Ro
Quantitative and qualitative analysis of textual data	Using Text Analysis and Process Modelling to Examine Buyer-Supplier Relationship Dissolution: The Ford-Firestone Breakup	Chen, Dooley & Rungtusanatham
Measuring 'price dispersions' to assess competitive dynamics, with use of contract data	Does Global Sourcing Pay-Off? A Competitive Dynamics Perspective	Vos, Scheffler, Schieler & Horn
Meta-Analytical Structural Equation Model	Mediation Effects between Purchasing and Supply Management Practices and Buying Firm Performance: Findings from a Meta-Analytical Structural Equation Model	Foerstl, Franke & Zimmerman

sources from the media and congressional hearings to construct the history of the dissolution of a high profile B2B relationship. Their analysis of the qualitative data blends qualitative and quantitative techniques. Chen, Dooley et al.'s in-depth single case study is one example of what Dubois and Salmi call for in their Notes & Debates contribution on broadening the range of approaches used in case study based PSM research. They explain their concerns about the dominance of very limited range of texts on the methodology, and the lack of

reflection and analysis transparency within many journal articles based on case studies.

In using contemporaneous media texts, Chen, Dooley et al.'s work demonstrates some of the distinct advantages of secondary data (see Ellram and Tate's contribution in this issue). It can provide insights on issues which interviewees might be reluctant to discuss candidly (e.g. talking about failure). It mitigates desirability bias, and the consequences of poor recall of historical events. Chen, Dooley et al.'s work also reminds us that people and organizations outside the two firms in a trading relationship are also stakeholders in the relationship, and can be valuable and relevant sources of data on the relationship. By combining these sources with several others including congressional hearings they reduce bias in favour of more powerful or more vocal actors. Dooley discusses methods for analysing large volumes of text data.

These articles not only make effective use of data (deploying new forms of data) and efficient use of data (avoiding survey fatigue and resource intensive case studies) but also support evidence based management (Rousseau, 2006) through various approaches to review systematically qualitative and quantitative evidence. In particular, Foerstl, Franke & Zimmerman's article presents an application of meta-analytic SEM. Meta-analyses necessarily require a certain level of maturity in a field, one which PSM is now reaching. They offer the potential to open up new avenues of inquiry, to address past controversies and uncertainty, and to challenge our assumptions. In summary, the techniques presented here demonstrate ways of making smarter use of data through novel data sources and novel analytic techniques. Such opportunities will increase as systems develop for archiving, sharing and analysing data.

Chen, Dooley & Rungtusanatham, Maestrini, Luzzini, Shani & Canterino, and Pinnington, Meehan & Scanlon, through text analysis, action research and grounded theory, respectively, all use methods that promote plurality, acknowledging – and working with – multiple stakeholders' perspectives. Pinnington et al., using grounded theory, address the diverse and contested notions of value that exist within a buying organization – a phenomenon that is widely recognized in practice but not integral to past research. Grounded theory is relevant here given the lack of theoretical foundations from past research and in making space for multiple voices, including those of less powerful actors (Burns et al., 2014). Maestrini et al. advocate action research – a well-known though still under-utilized methodology in PSM – to investigate themes associated with change management across organizational boundaries. They discuss in some detail the researcher's role and responsibilities in action research projects involving a buying and supplying firm, to ensure suppliers' interests are respected. They advocate a dispassionate approach which stands in contrast with Meehan, Touboulic & Walker's call for researchers to be more politically engaged, with responsibilities to address real problems in ways which deliver real impact.

#### 4. Barriers and enablers for research process innovation

The case for adopting novel methods is strong but so are many of the factors which hinder research process innovation. In this section, these barriers and enablers are identified in order to consider what measures might be taken to encourage wider use of novel methods in PSM. The discussion takes account of factors both at system and individual level (see Table 3), working 'round' the resulting two-by-two from system-level enablers to system-level barriers to individual-level barriers and finally to individual-level enablers.

Several of the articles in this special issue directly benefit from the system-level enablers listed in Table 3. As universities respond to stakeholders' increasing demands to demonstrate the impact on practice and policy of the research they fund, incentives for academics to undertake more engaged research, such as action research, are increasing. Similarly, research funders are promoting interdisciplinary

**Table 3**

System and individual level barriers and enablers to research process innovation.

	Barriers	Enablers
System	<ul style="list-style-type: none"> <li>● Risk and change averse culture</li> <li>● 'Publish or perish', now 'be cited or perish'</li> <li>● Institutional structures which do not incentivise cross-disciplinary working</li> </ul>	<ul style="list-style-type: none"> <li>● Increasing attention on impact for practice</li> <li>● Funding bodies promoting inter-disciplinary research</li> <li>● Research data archiving policies and technologies</li> <li>● Big data and media resources</li> </ul>
Individual	<ul style="list-style-type: none"> <li>● Desire to specialise</li> <li>● Risk aversion</li> <li>● Lack of capability/expertise or experience</li> <li>● Capacity and resource constraints</li> </ul>	<ul style="list-style-type: none"> <li>● Curiosity – desire to innovate and learn</li> <li>● Commitment – dedication of resources</li> <li>● Capability – knowledge and networks</li> </ul>

research, and this necessarily draws academics into research process innovation as they learn new approaches and techniques from other fields. Alongside these changes in incentives, there are significant opportunities in terms of data, as others' raw data is made available and as new sources and types of data become available. Dealing with such data often requires new techniques.

System-level barriers are however also powerful. The academic world is not renowned for its speed of innovation. Indeed it is seen as having a risk and change averse culture evidenced through the dominance of formulaic research (Alvesson and Gabriel, 2013). The incentives to 'play safe' are strong – and strengthening – as institutional pressures to 'publish or perish' grow. The more recent and rapidly growing focus on citations (Aguinis et al., 2014) exacerbates the problem, arguably to the extent that the 'publish or perish' adage has been displaced by 'be cited or perish'. Research funding bodies are increasingly keen on multidisciplinary research, but such research tends not to be facilitated by university structures and promotion schemes, or publishing opportunities in academic journals. Instead, university and journal institutional arrangements tend to encourage specialisation.

Naturally, individuals working within such environments, especially when at the early career stage, may be inclined to avoid risk and will seek to specialise. Decisions made to achieve these objectives are likely to mean opportunities for developing capabilities and expertise in novel methods are limited. Learning new methodologies and techniques consumes scarce time and resources. Furthermore, some methods such as action research are inherently more time consuming than other methods.

So what is it at the level of individual academics which – ultimately – enables learning and innovation in the research process? It seems to come down to three factors: curiosity (pursuing research questions for their intrinsic interest rather than for instrumental reasons), commitment (determining that learning and innovation in research process are important and dedicating effort and resources to doing so) and capability (having the resources, knowledge and skills to underpin adopting novel methods).

#### 5. Fostering innovation and looking ahead

Many of the barriers identified here cannot be directly influenced within the PSM community. The field of PSM does however have several advantages which can be exploited. The practice-oriented nature of the field means we are well positioned to respond to calls for research to have greater impact on practice and policy. (See for example Meehan et al.) This could be advanced further by adopting and developing participatory and action research methods. Significant recent advances in producing research that is methodologically rigorous and based on strong theoretical foundations mean PSM academics

can have greater confidence and capability, and a sound basis for learning and innovation. Besides the opportunities from big data and data archiving, PSM scholars could do more to mine the rich resource of organizations' purchasing data. Last but not least, learning and innovation in the PSM research process can be actively fostered by individual PSM academics, through their own research but also through their other roles in the community – as mentors of early career researchers, as research student supervisors, and as journal reviewers and editors. It is incumbent on us all in our various roles to improve awareness of the barriers and enablers and seek ways to break from the detrimental, self-reinforcing cycles outlined above.

Drawing on research perspectives and methods used in other areas of business and management studies and in fields such as health, politics, ethnography, history and the natural sciences can help us shed new light on existing and perennial problems. Novel methods are not necessarily better but they can help researchers to re-frame problems, challenge assumptions and provide new insights into PSM. Novel combinations of established methods can help scholars 'get more traction' on complex issues through working at the edges of the field to make sense of the changing landscape of PSM. The practice community is facing ever greater risk in supply chains – we should be willing to take some risks in how we go about understanding the field, and addressing challenging research agenda. Novel perspectives, methodologies, and data collection and analysis techniques are needed in PSM research, both to push the boundaries of the field and enhance the quality of research within the field. We need to continue to learn and innovate around research process, and to develop and sustain a supportive environment. This special issue aims to support these goals. We hope readers will find it interesting, and the various contributions will stimulate further studies with perspectives, methodologies and techniques that are novel to purchasing and supply management research.

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