

## **Underlying Theories of Sustainable Purchasing and Supply Research: IMP and the Sustainability Agenda – a Missing Link?**

Thomas Johnsen ([tjohnsen@audencia.com](mailto:tjohnsen@audencia.com))\*

Joe Miemczyk ([jmiemczyk@audencia.com](mailto:jmiemczyk@audencia.com))\*<sup>a</sup>

Mickey Howard ([m.b.Howard@exeter.ac.uk](mailto:m.b.Howard@exeter.ac.uk))\*\*

*\*Audencia Nantes School of Management, Nantes – France & part-time Professor at University of Southern Denmark, Department of Entrepreneurship and Relationship Management*

*<sup>a</sup>Aix Marseille Université, CRET-LOG EA 881, 13625, Aix en Provence*

*\*\* University of Exeter Business School, Dept. of Management Studies, Exeter, UK*

### **COMPETITIVE PAPER**

#### **ABSTRACT**

This paper discusses the underlying theories of sustainable purchasing and supply research with a focus on evaluating and comparing IMP theory with the theories that most often underpin this body of research, such as stakeholder and institutional theory. Building on a systematic literature review we address the questions: 1) what are the dominant theories used to underpin and guide sustainable purchasing and supply management research and 2) could IMP theory provide a useful theoretical lens to better understand sustainable purchasing and supply management phenomena?

The methodology employed is an extensive systematic literature review (Tranfield et al, 2003) focused on selected high quality journal papers. A systematic search process is used to identify over 1500 papers that are gradually reduced through a filtering process to 212 papers. The theoretical perspectives of each paper is identified and recorded in a database along with methodology, level of analysis and reported findings.

We find that a significant proportion of sustainable purchasing and supply management papers adopt, stakeholder theory, institutional theory and resource-based perspectives, however, relatively few papers rely on IMP theoretical perspective. We evaluate the rationale for the typical theoretical perspectives adopted and discuss the potential for IMP theory to underpin studies of sustainable purchasing and supply management and argue that IMP studies need to engage fully with this emerging research. The paper concludes by outlining specific future avenues of research that specify how IMP theory can underpin and further advance sustainable purchasing and supply research.

**Keywords:** Sustainable purchasing and supply, systematic literature review.

## INTRODUCTION

Arguably the greatest challenge to purchasing and supply management, both as an academic discipline and as a management profession, is the need to embrace sustainability. Whilst most companies still concentrate on delivering an economic return for their owners or shareholders, the pressures not to do so at the expense of the environment and the interest of people and society as a whole can no longer be ignored.

Many companies now have policies and measures in place to address their Corporate Social Responsibility (CSR). However, companies cannot tackle sustainability by themselves; having outsourced production and service activities to the extent that most of the value creation stems from external suppliers and service providers, they cannot implement sustainability without mobilising a large number of diverse actors. In other words, implementing sustainability requires systemic change, especially radically overhauled supply models (Johnsen et al, 2014).

Purchasing and supply managers are in a central position in the effort to develop sustainable supply networks. For example, there is a need to reconsider the existing sourcing strategies and policies, new supplier assessment systems focused on ethical performance are emerging and companies increasingly team up with other companies and organisations, not least Non-Governmental Organisations (NGOs), to audit and develop suppliers showing non-compliance with expected standards.

From an academic perspective, this major challenge has spurred a strong upsurge in research on sustainable purchasing and supply management and, more widely, supply chain management. Much of this research has addressed issues to do with pressures from many different stakeholders to implement sustainability including customers, regulators, media and NGOs, and is beginning to show the way forward for purchasing and supply managers. The focus on pressures from and pressure on multiple actors in order to effect business change should lend itself ideally to an IMP interaction perspective. However, it is not clear to what extent IMP research has fully embraced this challenge. This paper therefore addresses two questions:

- 1) *What are the dominant theories used to underpin and guide sustainable purchasing and supply management research?*
- 2) *Could IMP theory provide a useful theoretical lens to better understand sustainable purchasing and supply management phenomena?*

The contribution of the paper two-fold: firstly to provide a state of the art review of theories used in extant sustainable purchasing and supply management research. Whilst other literature reviews on, or related to, sustainable purchasing and supply management have been published in recent times (Seuring & Müller 2008; Mollenkopf et al, 2010; Miemczyk et al, 2012; Gimenez & Tachizawa 2012; Hojmosse & Adrien-Kirby, 2012) most focus on sustainable supply chain management, treating purchasing and supply as a minor issue, if at all, and none have systematically reviewed this body of literature through an IMP lens. Secondly, the paper evaluates why and how IMP-based research might engage more fully with this research agenda, exploring how an IMP perspective would bring out new ideas in comparison with existing theoretical approaches and initiating a new IMP research agenda. Rather than simply providing a literature review, this paper therefore seeks to initiate a conceptual debate about an important new research trend that IMP researchers should arguably not only engage with but also lead.

The paper is organized as follows. The first section explains the systematic methodology employed in conducting the literature review. The second section reports the findings from the literature review and thus addresses research question 1. The third section takes point of departure from the systematic literature analysis and debates the potential for IMP theory to provide a theoretical basis for sustainable purchasing and supply management research and discusses the themes that would be suitable for IMP-anchored research; this part thus addresses research question 2. The final section presents the conclusions from the literature review and outlines implications and limitations.

## METHODOLOGY

The data collected for this paper consists of an extensive systematic analysis of research into sustainable purchasing and supply management. In particular, we seek to identify the underlying theoretical perspectives applied in research published in respected academic journals with a view to identifying and exploring potential for IMP theory to provide a useful theoretical lens to better understand sustainable purchasing and supply management phenomena.

Sustainable purchasing and supply management is a relatively recent, but rapidly emerging field, so we are not limiting this review to empirical works but include conceptual papers too. The focus is on research with a management focus; we are not interested in how sustainability in purchasing and supply is conceptualized mathematically although we do not automatically discount papers due to a particular methodology provided that they are relevant.

The paper attempts to synthesize a rapidly growing field of knowledge. In doing so we have adopted a systematic approach to the literature search and analysis taking on board the call for systematic reviews in the field of management “to provide collective insights through theoretical synthesis into fields and sub-fields” (Tranfield *et al.*, 2003 p.220). The key steps for a systematic review as described by Tranfield *et al.* (*ibid*) include the planning phase, actually conducting the review and reporting and dissemination, are described later.

For the initial search of relevant papers we used the well-established databases Emerald and EBSCO. For this first part of the study, journal article titles were searched. The following search terms were used in combination: Purchasing, Procurement, Sourcing, Network, Green, Social, Environment\*, Sustainab\*, Responsibl\* & Stakeholder. These search terms were used both in keyword and abstract searches, which was less efficient than just focusing on the keywords, but ensured that we captured as many relevant papers as possible. We did not include the term ‘chain’ as we assumed this would be included in ‘supply’.

Table 1 shows the journals in which we identified relevant research papers. We should stress that we did not purely search in the listed journals; these journals were simply those with papers satisfying the search and selection process.

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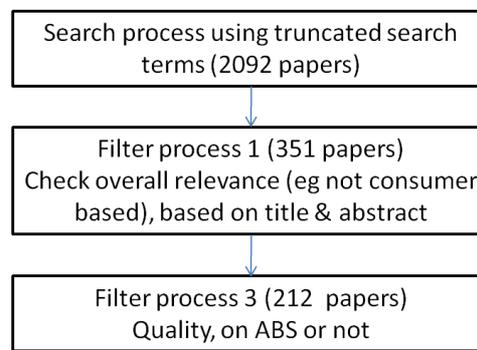
### Journals used in the review

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| <ul style="list-style-type: none"> <li>• Academy of Management Perspectives</li> <li>• Asian Business &amp; Management</li> <li>• Benchmarking: An International Journal</li> <li>• Business Strategy &amp; the Environment</li> </ul> | <ul style="list-style-type: none"> <li>• International Journal of Production Research</li> <li>• International Journal of Retail &amp; Distribution Management</li> <li>• International Journal of Production Economics</li> </ul> |
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| <ul style="list-style-type: none"> <li>• Corporate Environmental Strategy</li> <li>• Corporate Social Responsibility &amp; Environmental Management</li> <li>• European Journal of Innovation Management</li> <li>• Entrepreneurship &amp; Regional Development</li> <li>• Industrial Marketing Management</li> <li>• International Journal of Environmental Technology &amp; Management</li> <li>• International Journal of Logistics: Research &amp; Applications</li> <li>• International Journal of Management Reviews</li> <li>• International Journal of Operations &amp; Production Management</li> <li>• Journal of Business Ethics</li> </ul> | <ul style="list-style-type: none"> <li>• International Journal of Physical Distribution &amp; Logistics Management</li> <li>• Journal of Business Research</li> <li>• Journal of Economic Geography</li> <li>• Journal of Operations Management</li> <li>• Journal of Purchasing &amp; Supply Management</li> <li>• Journal of Supply Chain Management</li> <li>• Omega</li> <li>• Logistics Information Management</li> <li>• R&amp;D Management</li> <li>• Supply Chain Management: an International Journal</li> <li>• Sustainable Development</li> <li>• Transportation Research: Part E</li> </ul> |
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*Table 1: Journals with relevant sustainable purchasing & supply publications*



*Figure 1: Systematic literature review process*

From this initial search we found 2092 papers. With this initial list the title and abstract was checked for relevance, deselecting those which were out of scope including those that dealt with green logistics and general logistical issues and those concerning, for example, consumer buying behaviour. This allowed us to reduce the list down to 351 potentially relevant papers.

All of these papers were then filtered according to the quality of the journal. To ensure that only the highest quality research is considered, the analysis focuses specifically on articles published in major English-language North American and European journals. This means that the analysis considers journal articles that are included on the latest Association of Business Schools (ABS) ranking (Harvey *et al.*, 2010). The ABS ranking draws from several other highly regarded journal quality rankings. Although any journal ranking is inevitably controversial, the ABS ranking is widely viewed as providing a reliable measure of research rigour and quality. We were aware that some might argue that this would miss out on some good research, for example in the *Journal of Cleaner Production* or the online *IMP Journal*, but we chose to be consistent in this decision as otherwise many other journals, or in fact, conferences, could arguably be added to the list. The search and filtering process resulted in a net list of 212 papers. Figure 2 summarizes the process.

### *Analysis and Coding*

In order to generate a clearer picture of how the field is structured in terms of theoretical perspectives, we began by searching through the entire paper to see if there was any deliberate statement explaining the theoretical perspective or lens adopted. For this purpose we conducted keyword searches in the electronic copies of the papers and read those sections of the papers that were most likely to contain such a statement. We found that increasingly papers contain such explicit statements, however, this is a relatively recent trend as the majority of early papers contained very limited theory or made no attempt to explain the perspective. We therefore made notes to distinguish between papers making explicit statements or simply implicit theoretical application and if there was any other evidence of a clear use of a theoretical approach. As we discuss later, differentiating between those papers that applied a specific theoretical perspective or those that merely contained references to the literature, was a grey area. However, the specific focus of the review was on application of theoretical perspectives, either in conceptual discourse or in analysis or interpretation of empirical data, and not just references to the literature.

The review process resulted in the construction of a database of 212 papers, structured around the following headings: Study (authors and year); Method (Conceptual, Case-based, Empirical, Analytical); Focus/Findings (the main findings in the study); Unit of Analysis (Firm/Dyad, Supply Chain or Network) and, most importantly, the theoretical perspective. The database was constructed in Word in order to allow for comprehensive descriptions.

## **RESEARCH INTO SUSTAINABLE PURCHASING AND SUPPLY MANAGEMENT: FINDINGS FROM THE SYSTEMATIC LITERATURE REVIEW**

### *Overall growth*

Recent papers focusing on sustainable purchasing and supply management, and more widely sustainable supply chain management, have noted a strong growth in publications in recent years (e.g. Walker et al, 2012). We were aware of many colleagues in the field working on this or related themes, however, we did not expect quite such a strong upsurge in publications over the last 2 years (see Figure 3).

The first year of publications related to sustainable purchasing and supply management was a single article published in 1978 by Gravereau et al, the next followed over 10 years later (Trawick et al, 1989), followed by two articles five years later (Badenhorst, 1994; Drumwright, 1994). Throughout the 1990s only eight articles focusing on, or at least related to, sustainable purchasing and supply management were published. Although a steady but limited flow of papers began to appear 1998, the growth did not begin in earnest till 2005 where seven articles were published in one year. From then on publications have continued to rise with 2012 being the peak year with 40 papers.

The slight decline in 2013 (33 papers) should be seen in the context of several special issues dedicated to the subject, including the first issue dedicated to this subject in the *Journal of Purchasing & Supply Management* edited by Walker et al (2012), a special issue on 'green marketing and its impact on supply chain' in *Industrial Marketing Management* by edited by Chan et al (2012) and special issues in *Supply Chain Management: an International Journal* on 'green supply chain' and (a double special

issue) on systematic literature reviews which contained several papers focused on sustainable supply chain management.

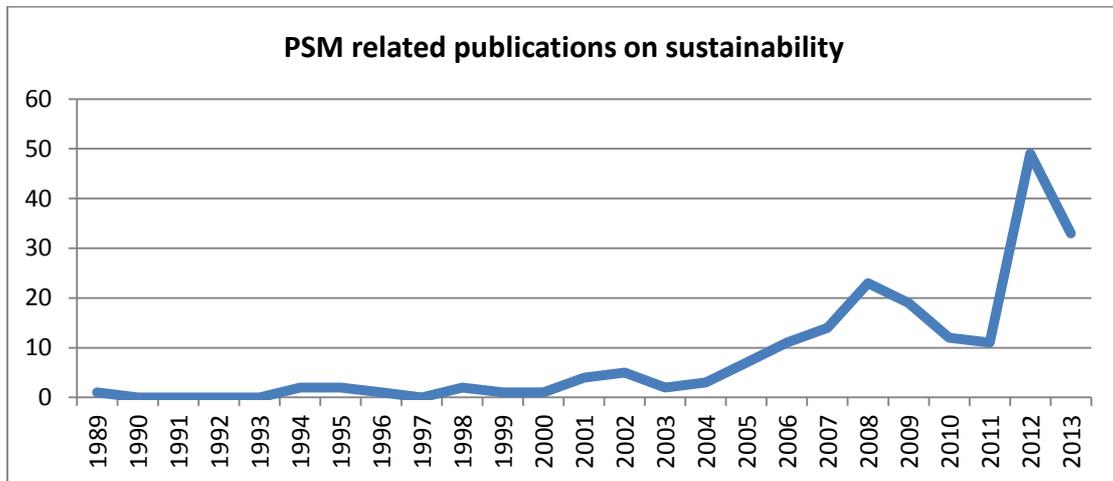
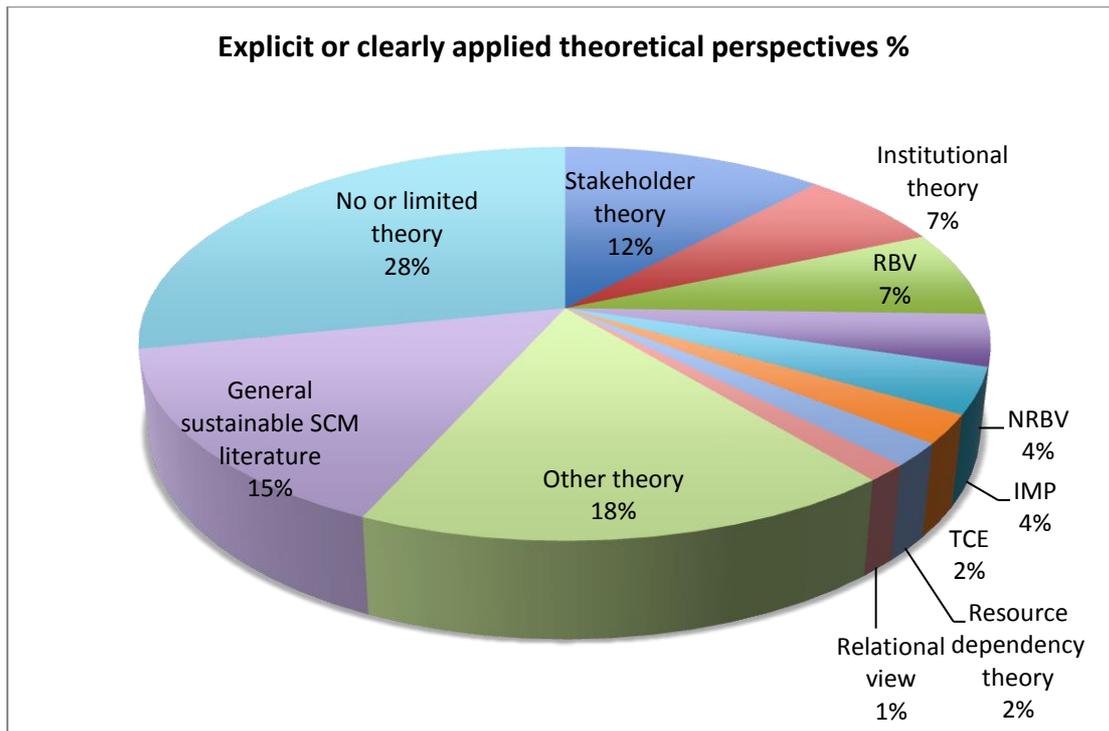


Figure 3: Overall development of purchasing and supply management related publications

#### *Theoretical perspectives: an overview*

Figure 4 shows the distribution of papers that contained a stated theoretical perspective or at least a clear application of theoretical perspective. Stakeholder theory (e.g. Freeman, 1984; Clarkson, 1995) is the dominant theory, followed by resource-based view (RBV) (e.g. Wernerfelt, 1984; Barney, 1991) and institutional theory (e.g. DiMaggio and Powell, 1983). Some recent papers (e.g. Pullman et al, 2009) adopt the natural-resource-based view (NRBV) first proposed by Hart (1995), which builds on the RBV to take into account a focus on the natural environment, in particular the role of sustainable development, product stewardship and pollution prevention.



*Figure 4: Distribution of applied theoretical perspectives*

3.8 %, or 8 out of the 212 papers, specifically adopt an IMP perspective. Another four papers mention IMP or reference IMP sources but with no explicit use and generally very limited application. In comparison with stakeholder theory, institutional theory and RBV/NRBV, IMP theory has therefore had little impact on sustainable purchasing and supply management research. As will be discussed later, it is also very recently that the majority of IMP papers on this subject have appeared.

Considering the popularity of transaction cost economics (TCE) and more widely institutional economics, in much of the buyer-supplier relationship and supply chain management literature (Spina et al , 2013), it may be a little surprising that only 2.4 % of papers use TCE as theoretical perspective to analyse sustainable purchasing and supply management. However, as some have observed (Hall and Matos, 2010), TCE is arguably ill suited to understanding what is by definition a long-term concept (i.e. sustainability) given the inherent short-term focus of TCE.

We found a small number of papers relying on e.g. Pfeffer and Salancik's (1978) resource-dependence theory and the relational view of Dyer and Singh (1998). However, what possibly stands out from Figure 4 more than the distribution of theories applied is the large proportion of papers (28.3 %) that rely on no or limited theory. As explained earlier, many papers had no stated theoretical perspective, were mostly concerned with practical challenges, such as on tools, regulatory drivers or standards, or relied on literature but with no clear use of theoretical perspective(s). We should also note from Figure 4 that 32 papers (15%) relied on what we would describe as general purchasing and/or supply chain management references. Usually, these papers made no explicitly statement to identify the use of a theory but many did state clearly that they applied, say, a particular supply chain management model. We do not want to place too much emphasis on the specific number of papers that had no or limited theoretical perspective and those that applied more or less explicitly a

general supply chain management perspective. In reality it is very difficult to distinguish these two clusters of papers, as many of these are borderline: for example, papers often included references to the (sustainable or general) supply chain management literature, claiming that by doing so they apply theory. Many authors refer to supply chain management ‘theory’ if they build on a supply chain model or concept. This indicates that the field has now really progressed sufficiently in terms of establishing a solid theoretical foundation, echoing the almost 20 year-old statement by Wood and Jones (1995) who noted that CSR “...displays a serious mismatch of variables which are mixed and correlated almost indiscriminately with a set of stakeholder-related performance variables that are not theoretically linked” (p. 231). Certainly, our analysis lends support to observers, such as Mollenkopf et al (2010), Sieweke et al (2012) and Hoejmosse et al (2014), who argue that the supply chain field, and in particular the sustainable supply chain, field is too often either atheoretical or at least overly dependent on supply chain models that lack grounding in theory.

Moreover, the field is characterised by very wide application of theories and includes, for example, grounded theory, actor-network theory associated with e.g. Newton (2002), organisational learning and resource advantage theory. Figure 5 provides an overview of these. This also indicates the cross-disciplinary nature of the emerging field of sustainable purchasing and supply management, which means that a very wide range of perspectives is being applied where not all are management perspectives; contributors to the field span many disciplines, including economic geography, engineering, and sociology.

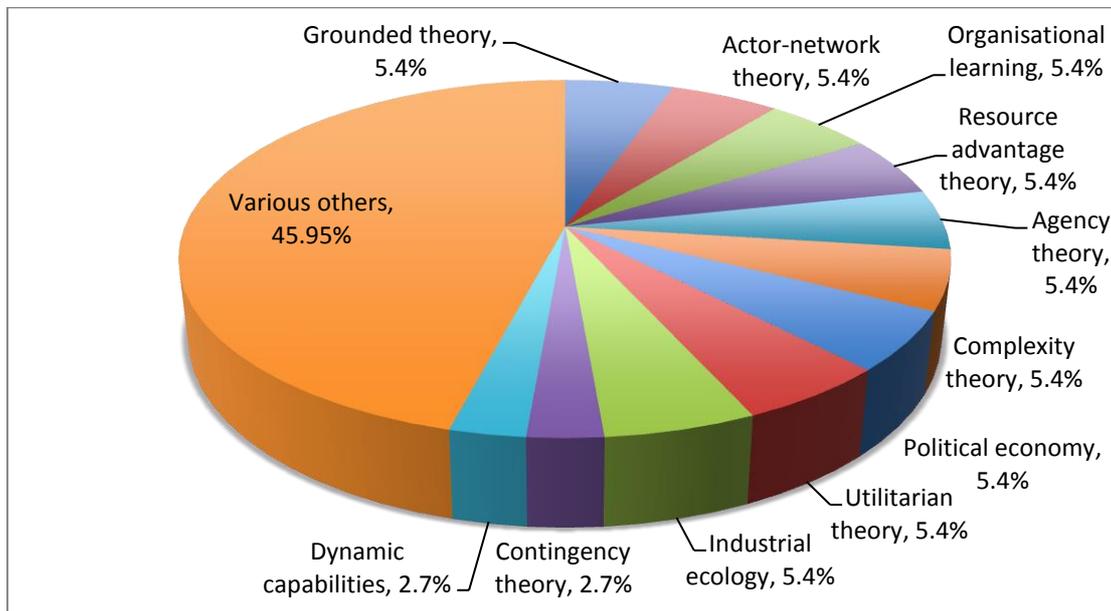
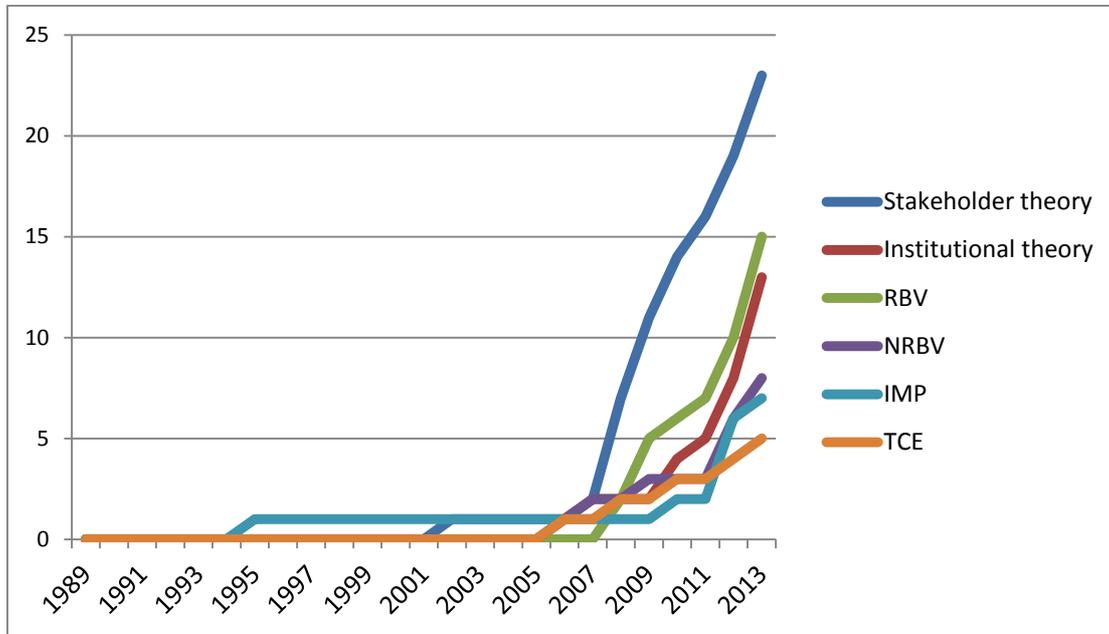


Figure 5: Distribution of Other Theories

We should emphasise that those papers identifying a clear theoretical perspective often use more than one theory, usually combining two or three complementary perspectives, such as the stakeholder and institutional theories, or RBV and NRBV.

### *Changes in theoretical perspectives over time*

Analysing the development of the most popular theoretical perspectives over time, we can observe some interesting changes (see Figure 6). Most importantly, we can see that literature relying on RBV, and in particular the NRBV, is on the rise so that it is now slightly more prevalent than institutional theory.



*Figure 6: Development of theoretical perspectives over time (cumulative)*

### **COMPARING THE DOMINANT THEORIES: STAKEHOLDER, INSTITUTIONAL, RESOURCE-BASED AND IMP**

In this section we compare the three theories that are obviously most widely applied across the papers we examined, with the IMP perspective. We make some general observations, particularly on the relevance of each theory for the study of sustainable purchasing and supply and briefly discuss themes and conclusions from selected papers.

#### *Stakeholder theory*

Stakeholder Theory (ST) has been described in the past as a ‘handmaiden’ approach since it is often used to support the elaboration of other theories such as RBV and Institution, but rarely becomes the focus of development on its own. It is not until Freeman (1984) integrates stakeholder concepts into a coherent construct that the role of stakeholders (i.e. consumers, producers, suppliers) moves closer to the forefront of academic attention. ST has initially centred on defining the stakeholder concept and classifying stakeholders into categories which provide an understanding of stakeholder relationships. Three approaches are adopted in the literature: 1) a psychology based approach of personalities in management and society (Mitroff 1983, Ackerman and Alstott 1999), 2) the effects of groups or individuals towards the

achievement of an organization's goal (Freeman 1984, Mitchell et al. 1997), and most recently: 3) the study of stakeholders in an inter-organizational setting in relation to power and collaboration (Clarkson, 1995; Henriques and Sadosky, 1999).

The motivation of stakeholders in a business management setting reflects current interest in managing the issue of sustainability in inter-organizational relationships, where the firm is generally considered an unsatisfactory unit of analysis and it is necessary to take a whole system, sector based or industry view (e.g. Walker and Brammer 2009; Pagell et al 2010). Relationships according to stakeholder thinking do not occur in a vacuum of dyadic ties, but as a network of influences involving multiple stakeholders (Rowley, 1997). This idea fits with the interest in boundary spanning and stakeholder networks that extends beyond the boundary of the firm, concerning '*...any group or individual who can affect, or is affected by, the achievement of a corporation's purpose*' (Freeman, 1984: p.vi). This concept also draws on the concept of 'stake-holding' in systems research as an approach that seeks to understand organizations from the perspective of social actors. Consideration of stakeholders therefore forms an integral part of the industrial planning process and the 'sociology of technology' where achieving change in the supply chain is '*...not simply a technical-rational process of "solving problems", it also involves economic and political processes in articulating interests, building alliances and struggling over outcomes*' (Webster, 1995: p31). Freeman (1984) attributes the source of an increasingly turbulent business environment to a change in the relationship between internal stakeholders (i.e. owners, customers, employees and suppliers), and external stakeholders (i.e. governments, consumer advocates, environmentalists, special interest groups and the media). The diversity of ST and its facility for identifying and prioritising conflicting requirements has rejuvenated interest in the literature particularly in the context of the possibilities of collaborative implementation of sustainable supply chain scenarios (e.g. Matos and Hall, 2007; Darnall, 2008; Kovacs, 2008). Table 2 provides an overview of selected studies adopting the stakeholder theory perspective.

Study	Method	Focus/Findings	Unit of Analysis	Underpinning theory
Maignan et al (2002)	Anecdotal examples	Socially-responsible buying and integration of non-economic criteria into purchasing process.	Vague but focus is on stakeholder influences	No explicit theoretical perspective but builds extensively on stakeholder theory e.g. Clarkson, 1995), Henriques and Sadosky, 1999). Discusses stakeholder power and collaboration
Matos & Hall (2007)	2 case studies of oil and gas & agricultural biotech (Brazil and NA)	Problems of integrating sustainable development in supply chains, using life cycle assessment and cradle to grave to optimise closed-loop supply chains, improving product design and stewardship.	Network/stakeholders	States that they draw on complexity theory (e.g. Simon, 1962; 1969), risk mngt, stakeholder theory and innovation dynamics literature.
Amaeshi et al (2008)	Conceptual and philosophical discussion with case examples (secondary data)	Discussion about CSR in supply chains (if responsibility can go beyond the focal firm): firms can only act within their circle of influence.	Dyad (firm – supplier relationships)	Stakeholder theory and to a lesser extent social contract theory
Kovacs (2008)	16 Cross-industry Finnish case studies	Corporate environmental responsibility within supply chains. Environmental demand rarely influence choice of suppliers, need for more supplier knowledge incl. beyond 1 <sup>st</sup> tier. Environmental demand spill over across industries.	Data collection across several tiers: focus across supply chain	Uses stakeholder theory and industrial ecology
Co & Barro (2009)	Survey factor analysis (literature review)	Provides a framework for analyzing stakeholder management strategies in supply chain collaboration: two stakeholder strategies: aggressive strategies and cooperative	Stakeholder	Title includes stakeholder theory. 3 attributes identify dynamics of interaction among stakeholders (Mitchell et al., 1997): power, legitimacy, urgency
Worthingto	Interviews with 3	Describes how large purchasing	Stakeholder level	Relies extensively on stakeholder

n (2009)	case companies in US and 4 in UK	organisations build a business case for supplier diversity, specifically ethnic minority owned businesses		theory but also RBV, especially RBV linked to CSR that consider a firm's reputation or image "as a valuable asset that can serve as the basis for decisions made by organisational stakeholders in their various interactions with the enterprise (Fombrun and Shanley, 1990)"
Ehrgott et al (2011)	Survey of 244 US and German companies	Examines how pressures from customers, government and employees determine the extent to which firms consider social aspects in selection of <u>emerging economy</u> suppliers.	Stakeholders	States that they build on stakeholder theory (e.g. Freeman, 1984)
Parmigiani et al (2011)	Conceptual	Discusses supply chain configuration (especially in terms of efficient and responsive strategy), control and capabilities. Focus on need for accountability.	Stakeholders	State that they integrate a stakeholder management approach with familiar SC concepts and that they employ the capabilities literature. Builds on stakeholder theory e.g. in discussing stakeholder salience (Mitchell et al, 1997): <b>power, legitimacy and urgency.</b>
Schneider & Wallenburg (2012)	Conceptual	Internal and external stakeholder salience to implementation of sustainable sourcing. Analyses stakeholder impact on sustainable sourcing profiles.	Stakeholder	Explicitly state that they use stakeholder theory e.g. Freeman (1984) and Mitchell et al (1997)

*Table 2: Selected Sustainable purchasing & supply publications underpinned by stakeholder perspective*

Mitchell et al.'s (1997) seminal work on Stakeholder Salience Theory (SST) is frequently adopted as part of research into sustainability (e.g. Maignan and Ferrell, 2004) where relationship attributes combine the influence of power, legitimacy and urgency. Stakeholder salience or 'importance' is useful when investigating inter-organizational relationships, as it can reveal the motives behind the adoption of phenomena such as new technology or perceived benefit from environmental management. According to SST, a group or party to the relationship has *power* to the extent it has access to coercive, utilitarian, or normative means to impose its will in the relationship. *Legitimacy* is a desirable social good, more over-arching than individual self-perception and shared amongst groups, communities or cultures. *Urgency* is based on time sensitivity and criticality: the importance of the claim or the relationship to the stakeholder (Mitchell et al, 1997). Combining these attributes generates eight types of stakeholder: dormant, discretionary, demanding, dominant, dependent, dangerous, definitive, and non-stakeholder. Stakeholder salience offers an extra dimension to inter-organizational analysis by including third party interests and relationship type attributes. It overcomes concerns over the representation of motives, interests and power, and the insular nature of models which focus on the firm as the unit of analysis. General criticisms of ST are that exclusive use of the approach may restrict thinking on how relationships between firms are affected beyond the variables of power, legitimacy and urgency, where a response may need to include in-depth explanations around the precise nature of the transaction or specific capability requirement.

#### *Institutional theory*

Within our analysis 14 papers take an institutional perspective on the adoption of sustainable purchasing practices. This is a significant proportion of all the papers which have used theory explicitly within their research. A fundamental premise of

institutional theory is that it explains why companies often adopt similar responses and practices. The majority of these papers see the institutional view as a way of explaining the drivers for sustainability responses, assuming for the most part that supply chain level actions are the result of external pressure of a coercive, normative or mimetic (cognitive) nature (Carbone & Moatti 2011, Shi et al., 2012, Adebajo et al., 2013, Hsu et al., 2013, Lee et al., 2013). While it is clearly important to have an understanding of what drives firms to act, it seems this focus on drivers is part of the developmental part of the sub-field. Despite this some of the papers have asked different questions taking the use of institutional theory further in the area of purchasing and supply and sustainability. See Table 3 for a selection of studies adopting the institutional approach.

Study	Method	Focus/Findings	Unit of Analysis	Underpinning theory
Zhu & Sarkis (2007)	Survey of 341 factories in China	Adoption still relatively immature, but positive links with performance in general (as well as some negative ones).	Dyad and supply chain	Adopts institutional theory. Furthers evidence of existence of heterogeneity of pressures and influences. Not all isomorphic institutional pressures influence environmental practices in the same way; careful consideration of operational practices and industrial contextual environment important.
Carbone & Moatti (2011)	Survey of 600 companies	Focus on transformation process of strategic intent into green supply-chain initiatives and role of institutional pressures.	Stakeholders	Title states institutional perspective. "Isomorphism stems from the influence of different types of institutional pressure (Di Maggio and Powell 1983): formal institutions ('coercive isomorphism'), incl. regulations; informal social pressures by leading or interconnected companies ('normative isomorphism' and 'mimetic isomorphism').
Lee et al (2013)	Survey of 331 SC and logistics managers of South Korean firms	Impact of GSCM on organizational performance. Links to SC flexibility.	Company level	The authors developed hypotheses based on two theories: institutional theory and the resource-based view but did not measure institutional pressure or resource impact.
Zhua et al (2013)	Survey of 396 Chinese managers across industries	Institutional-based antecedents and performance outcomes of internal and external green supply chain management: focus on institutional pressures for adopting GSCM: isomorphic pressures i.e. normative, coercive and mimetic	Stakeholder	Specifically builds a conceptual model based on institutional theory.
Adebajo et al (2013)	Single case and action research.	Use of CSR criteria in supplier selection in Nigeria	Despite institutional approach focus is mostly dyadic	Explicitly states use of institutional theory in title. Focus on 3 pressures: coercive, mimetic and normative. Paper focuses on coercion of case study organisation on supplier practices.
Blome et al (2014)	Survey of 114 European firms	Green procurement and green supplier development. Focus on legitimacy as driver of green procurement; top management commitment is important for green supplier development. 3 types of isomorphic pressures.	Stakeholder	State that they use theoretical views of legitimacy (institutional and strategic) incl. institutional theory and NRBV. "From the institutional perspective, legitimisation is envisioned as a process of institutionalisation, whereby external norms and beliefs are adopted without much thought.
Snider et al (2013)	Survey of 166 companies supplying US defence procurement agencies	CSR and public (defence) procurement. Laws, regulations, and norms that permeate U.S. federal public procurement. Since public procurement uses public funds, higher levels of accountability and higher standards of stewardship apply.	Stakeholder	Explicitly state that they rely on institutional theory and agency theory:
Czinkota et al (2014)	A case study of European horse meat scandal	Relationship between legitimacy, reputation, sustainability and branding for companies and supply chains.	Supply chain and stakeholders	Adopts "...a synthesized explanatory basis entailing an eclectic mosaic of interdisciplinary theories (institutionalist, neo-institutionalist theories, the viable system approach, isomorphism and identity)".

*Table 3: Selected Sustainable purchasing & supply publications underpinned by institutional perspective*

In Zhu and Sarkis (2007 p.4353), we can see development through the following: “We advanced the theory here by furthering the evidence of the existence of heterogeneity of pressures and their influences. Not all isomorphic institutional pressures influence environmental practices in the same way and that careful consideration of the operational practices and industrial contextual environment will be important for managers in these various situations. Thus, we further exemplify the importance of institutional theory in understanding how the relationship between managerial decisions and organizational performance will be influenced by the existence and type of external institutional pressures, especially within the manufacturing industry”. As a further example, Czinkota et al (2014) focus on the relationship between legitimacy, reputation, corporate branding, identity in industrial marketing and use a combination of institutional and stakeholder views within their conceptual development paper. They highlight that enhanced reputation through legitimacy should be achieved through improved coordination and planning, better communication between actors and formal trust, but also training to raise awareness of value of quality particularly in food supply chains (using the example of the recent horse meat scandal). Similarly Snider et al (2013) present results that qualify previous research using an institutional view by showing that government contracts do not necessary lead to explicit CSR in Europe or the US, and that more studies are needed to prove the hypothesis presented famously by Matten and Moon. They state that future research should focus on combining agency and institutional theory to better explain the role of the unique institutional environment of public procurement. Yet, in some cases this combination of theories almost creates a confusion between institutional and stakeholder viewpoints, for example Snider et al (2013) explicitly bring together institutional and stakeholders references to state “theories that focus on relationships among and duties of key individuals and groups (e.g., Berman et al., 1999; Freeman, 1984, 1994; Ogden and Watson, 1999; Rowley, 1997)..... both perspectives emphasize a firm’s obligations to those outside its boundaries” (p. 65). This suggests perhaps a more integrated approach in using explanatory theories, particularly institutional and stakeholder approaches.

Others have provided overviews of institutional theory (contested as a theory itself) explaining the economic and sociological roots of the perspective in the context of operations and supply chain management (Kauppi 2013). This highlights missing arguments especially in explaining the role and reaction to the presence of uncertainty. Often institutionalist research more generally relates to how firms cope with uncertainty in the external environment in but the theory also points to actively influencing these pressures for their own advantage, (Meyer and Rowan, 1977), for example pre-empting and shaping legislation and standards; this is hardly considered in PSM literature despite its clear importance especially as purchasing becomes more strategic. One rare example is the work of Ritvala and Salmi (2010) showing that environmental networkers can instigate institutional changes (to rules) at a societal level in spite of and in additional to their business interests.

#### *Resource-based theories*

The resource-based view (RBV) proposes that the basis for firm level competitive advantage lies in the application of bundles of valuable resources at the firm's disposal (Wernerfelt, 1984). The RBV stipulates four different criteria to evaluate whether these resources constitute sustained competitive advantage: Valuable, Rare, In-imitable and Non-substitutable or 'VRIN' (Barney 1991, Peteraf 1993). The basic assumptions of the RBV focus on firm resource heterogeneity and immobility.

As the literature analysis in this paper shows, the RBV has been used in several papers and indeed is becoming increasingly popular as a theoretical lens to study sustainable purchasing and supply management phenomena. However, given the RBV's inherent limitations, especially when applied to sustainability, the RBV is often accompanied with other theoretical perspectives and it is rarely the classic RBV that is applied. In this context, the RBV's greatest limitation is the restriction of resource scope as defined by the boundary of the firm. As a response to these criticisms developments in thinking of the RBV have emerged, including the extended resource-based view (ERBV) (Lavie, 2006) and the natural resource-based view (NRBV) (Hart, 1995) and it is the latter that is adopted in an increasing number of studies.

As the original proponent of NRBV, Hart (1995) argues that focusing on an internal competitive approach may prove inadequate for firms adopting sustainable practices because of the reliance on external relationships. Hart's (1995) idea of competitive advantage is based on the firm's relationship with the natural environment via three interconnected strategies: pollution prevention, product stewardship and sustainable development. The NRBV model combines these strategies with the internal-external boundary spanning aspects between concerns over firm competitive advantage and wider societal legitimacy. Hart's view on the challenges facing firms consists of rebuilding competitive advantage through the development of causally ambiguous knowledge (e.g. Total Quality Environmental Management), socially complex processes and rare attributes such as shared vision on topical issues.

Table 4 provides an overview of selected studies applying RBV and NRBV perspectives. The first of the listed papers (Worthington, 2009) argues that sustainability implies that a firm's reputation or image becomes a valuable asset. Several authors, including Pagell et al (2010), point to the strategic significance of inter-firm relationships:

*“The implications here are that (a) each relationship is potentially a resource that is firm-specific, creates value in the marketplace and is difficult to imitate (Barney 1991) and (b) the ability of managers to recognize and form relationships to improve sustainability may be an even more valuable asset that results in a sustainable advantage in making responsible and profitable supply chain decisions.” P. 66.*

Study	Method	Focus/Findings	Unit of Analysis	Underpinning theory
Worthington (2009)	Interviews with 3 case companies in US and 4 in UK	Describes how large purchasing organisations build a business case for supplier diversity, specifically ethnic minority owned businesses	Stakeholder level	Relies extensively on stakeholder theory but also RBV, especially RBV linked to CSR that consider a firm's reputation or image as a valuable asset
Pagell, Wu & Wasserman (2010)	10 case studies of NA supply chains but no supplier interviews	Argues that purchasing portfolio models e.g. Kraljic need to be adapted to include sustainable SCM (SSCM) considerations.	Claims 'supply chain case studies' focus but effectively internal and dyadic	Discussion of how Kraljic can be changed to incorporate sustainability. Discusses findings using TCE, RBV and stakeholder theory.
Paulraj (2011)	Survey responses collected from 145	Firm-specific capabilities can also have a significant influence on the	Company	Grounded within the resource-based view, resource advantage theory and

	U.S. firms and advanced structural equation modeling approaches	environmental, social and economic performance of firms. SSM is a socially complex relational capability that can function as a crucial mediator of the relationship between firm-specific resources/capabilities and organizational sustainability.		the relational view of strategic management. Both firm-specific, as well as relational capabilities, are essential for achieving competitive advantage.
Narasimhan & Schoenherr (2012)	Survey of 434 manufacturing firms in the US	SMP and EMP both influence better quality performance.	Plant level	Uses the RBV to explain the link between supply integration, environmental practices and improved quality (actual and perceived) SMP and EMP are seen as resources that enhance quality even though there are probably other resources that also have this effect (marketing for example).
Gimenez & Sierra (2013)	Survey in Germany and Spain	Governance mechanisms for greening suppliers including supplier assessment and 'collaborative efforts': effect on environmental performance.	Dyadic	State that they use transaction cost theory (TCT) (Williamson 1975) and RBV. TCT explains why assessment is used to improve environmental performance, RBV to explain why collaboration leads to better environmental performance.
Blome et al (2014)	Survey of 114 European firms	Green procurement and green supplier development. Legitimacy as driver of green procurement, top management commitment is important for green supplier development. 3 types of isomorphic pressures.	Stakeholder	They specifically state that they adopt institutional theory and NRBV.
Vachon and Klassen (2006)	Survey of 84 companies in the packaging industry.	Impact of environment-related or green project partnerships on a plant's cost, quality, delivery, flexibility and environmental performance	Dyad and supply chain	Explicitly states that they adopt NRBV to support theoretical link between green project partnerships and operational performance.
Shi (2012)	Conceptual paper & model	Natural resource based green supply chain management. Critically evaluates performance measures and institutional environment.	Firm / supply chain.	NRBV and institutional theory

*Table 4: Sustainable purchasing & supply publications underpinned by resource-based perspectives*

Similarly, Paulraj's (2011, p.) study shows sustainable supply management "*as a socially complex relational capability that can function as a crucial mediator of the relationship between firm-specific resources/capabilities and organizational sustainability*". He further argues that firm-specific capabilities can have a significant influence not only on economic but also on environmental and social firm performance.

Studying green project partnerships from an NRBV perspective, Vachon and Klassen (2006) conclude that the development of knowledge sharing routines and capability to integrate external resources (Dyer and Singh, 1998) constitute resources that are difficult to replicate and thus may generate a competitive advantage. This is echoed by Gimenez and Sierra (2013) who conclude that "*by providing their suppliers with training, a buying firm not only contributes to the development of its supplier's environmental capabilities, but also obtains a more environmentally friendly product or service, which in turn results in an enhancement of its environmental reputation and performance.*" P. 197-198. Again, the argument is that the ability to form collaborative relationships with suppliers to improve sustainability and as well as an improved sustainability image are valuable assets that result in a sustainable competitive advantage.

## IMP

As shown in Table 5, Wood (1995) was the first to use IMP theory in discussing ethical issues in buyer-seller relationships yet this was a relatively minor part of his paper. Harrison and Easton's (2002) paper was much more strongly guided by an IMP perspective in its analysis of patterns of network actor responses to an environmental change (banning of CFCs), however, albeit relevant did not focus on purchasing and supply management. The more recent papers that have appeared since 2010 show promise as to the potential application of an IMP perspective and the issues that can be better understood through an IMP lens.

Study	Method	Focus/Findings	Unit of Analysis	Underpinning theory
Wood (1995)	Conceptual	Bribery is seen as the most significant problem of ethics in purchasing, COPs have helped but they are only aspirations.	Firm/dyad	Relies mostly on sales and marketing literature and some purchasing. Introduces IMP Interaction Approach (Ford, 1980) to highlight the role of social relationships in buyer-seller relationships.
Harrison & Easton (2002)	10 case studies	Patterns of actor response to environmental change. Explores how actor respond to a single deep process: minimisation of change.	Network	State that they use Industrial network (IMP) and strategic management theory. Uses IMP to analyse environmental change process as network change.
Ritvala & Salmi (2010)	One in-depth case study: saving the Baltic sea	Value-based network mobilisers & environmental networkers. Shifts focus of analysis from business networks to networks covering multiple types of actors. Analyses network development around a contemporary issue.	Network/ stakeholders	State that they anchor the study in IMP and ideas from other streams of literature, such as institutional entrepreneurship (Fligstein, 1997; Wijen & Ansari, 2007), to better understand mobilization of issue networks.
Crespin-Mazet & Dontenwill (2012)	Single in-depth case study	Legitimacy in supply networks: identifies product, corporate and cause legitimacy and shows increasing commitment levels associated with each type.	Network	State that they adopt the IMP supply network framework of Gadde and Håkansson (2001). Their conceptual framework is IMP ARA model. Distinguish between business and non-business actors.
Oruezabala & Rico (2012)	Cases of 15 French hospitals	Sustainable public procurement and supplier management. Focus on public procurement (relational) contracts. Role of norms.	Mostly dyadic	No explicit statement of adoption of a theoretical perspective; focuses on relational contract theory e.g. Mouzas and Ford (2006).
Oberg et al (2012)	3 case studies	Network analysis of environmental impact assessment: actor embeddedness, resource interaction and inclusion of indirect effects.	Network	Makes no explicit statement but clearly adopts an IMP network perspective in focusing on embeddedness of actors, resources, and activities.
Ryan et al (2012)	Conceptual	Examines interactions and network approach to developing sustainable organizations.	Dyad, net/ network	Interaction and Networks approach. (IMP: Håkansson 1982, Möller & Halinen, 1999). Combined with living systems theory (Capra, 2002).
Tate et al (2013)	Conceptual: develops a set of propositions	Diffusion of environmental practices in supply networks. Proposes that high levels of structural and relational embeddedness incl. weak ties are required for diffusion of environmental practices in supply networks.	Network	State that they apply a network approach. Identify both social network theory and IMP. Makes use of e.g. Harland (1996) and Lamming et al (2000) to highlight the importance of distinguishing between different levels of supply chain/network analysis.

*Table 5: Sustainable purchasing & supply publications underpinned by IMP perspective*

Ritvala and Salmi's (2010) paper on value-based network mobilisers shifts "*the focus of analysis from predominantly business networks to networks covering multiple types of actors, such as political (Hadjikhani et al, 2008; Welch and Wilkinson, 2004), and those from the civil society, and analyse network developments around a contemporary issue*" (p. 899). This is a significant use and, more importantly, conceptual development of IMP theory as most IMP studies to date have focused on

business networks, in reality mostly in an industrial context (although research on service industries has emerged in recent years). Thus, seeking to understand mobilisation of a wider range of actors, they examine how issue networks, or nets, are initiated and change over time through formation of groups that pursue “*collective goals where organizations interactively shape and develop the rules that constitute and govern their relationships*” (Mouzas and Naudé, 2007).

Exploring French public sustainable procurement, Crespin-Mazet and Dontenwill (2012) adopt a similar distinction between types of actors, referring to ‘business and non-business actors’ (e.g. NGOs), using an IMP lens to explore the challenges of building legitimacy in supply networks. As discussed earlier, legitimacy is one of the themes of stakeholder and institutional theories. Crespin-Mazet and Dontenwill (2012) demonstrate how the IMP ARA model and the supply network framework of Gadde and Håkansson (2001) can be used to analyse legitimacy as part of sustainability development within supply networks, identifying product, corporate and cause legitimacy and showing increasing commitment levels associated with each type of legitimacy.

Similarly focused on the context of French public procurement, specifically how French hospitals are increasingly required to comply with regulations that dictate inclusion of sustainability in public procurement contracts, Oruezabala and Rico’s study (2012) critically evaluates the role of contracts as part of the interaction between French hospitals and their suppliers, findings that sustainable procurement impacts the relationship by creating new rules.

Oberg et al’s study (2012) is closer to the paper by Harrison and Easton (2002) in its network analysis of environmental impact assessment. Highlighting the importance of understanding actor embeddedness, resource interaction and inclusion of indirect effects, their network analysis contributes to research on environmental effects (e.g. McIntyre et al., 1998; Vasileiou and Morris, 2006), showing how assessment could be seen as an embedded activity with consequences for interaction:

*“Because of scarce resources, organizations have to decide which functions to perform themselves — and therefore establish ties with other organizations for complementary resources (Aiken and Hage, 1968; Håkansson and Snehota, 1989; Paulson, 1974). Such ties lead to interdependencies. Actions by one party are both constrained by and affect other parties. Such effects can be direct or indirect, which means that they are mediated through third parties. A network approach provides the tool for analysing the complexity of direct and indirect effects (Hallén, Johanson, and Seyed-Mohamed, 1991)”* (Oberg et al, 2012, p. 248).

Ryan et al (2012)’s conceptual paper brings further issues to the fore, discussing in particular the nature and role of networks in building systems level change (meso-level or issue-based nets (Ritvala and Salmi, 2010), the role of dyadic relationships as a mechanism for capability development and system level change, and the capabilities necessary to enhance learning for sustainability. Building on the work by Möller and Halinen (1999), they provide a conceptual framework capturing different triggers of external and internal change, in a similar vein to stakeholder theory but focusing more on the role of indirect network relationships and interconnected and interacted change thus adopting a markets-as-networks perspective (Araujo et al, 2003; McLoughlin and

Horan, 2000). In suggesting how IMP theory could be used to understand the role of dyadic relationships in capability development, they identify the importance of understanding learning as being generated through interaction (Easton and Araujo, 1994) and the co-creation of knowledge, again echoing the study by Ritvala and Salmi (2010). Finally, again building on Möller and Halinen (1999), Ryan et al (2012) propose specific capabilities including network visioning, orchestration and the ability to perceive the “other” as partners in creating new market realities, although the idea of network orchestration may over-estimate the ability and influence of actors on networks. Nevertheless, the network visioning, and also network pictures concept (e.g. Ramos and Ford, 2011), to make sense of sustainability contexts, should have much potential.

The final paper we identified was another conceptual study by Tate et al (2013), which stated that they apply an IMP network and a social network approach, although building on the IMP-related literature focused on supply networks (Harland, 1996; Lamming et al, 2000) rather than extensive use of core IMP theory. Yet, in line with other authors such as Möller et al (2005) and Ritter and Gemünden (2003) they highlight the importance of distinguishing between different levels of supply chain and network analysis. Similarly to Oberg et al’s study (2012), they also discuss how environmental practices spread or diffuse within in supply networks, proposing that high levels of structural and relational embeddedness including weak ties are required for effective diffusion.

### *Overview of similarities and differences*

The most widely applied theoretical perspectives for researching sustainable purchasing and supply management are the theories of stakeholder, institutional and resource based views. This section has briefly discussed each of these three, followed by an overview of research underpinned by an IMP perspective. Clearly, both stakeholder and institutional theories have much in common with IMP whereas in comparison the traditional RBV differs in some important aspects. Table 6 provides and overview of the four perspectives.

<b>Characteristics</b>	<b>IMP</b>	<b>Stakeholder theory</b>	<b>Institutional theory</b>	<b>Resource-based views</b>
<i>Key concepts</i>	Interaction processes in btb customer-supplier relationships Adaptation and institutionalisation Actors bonds, resource ties, activity links Network effects	Identification of key actors The motivation of firms i.e. power, legitimacy, urgency Importance or salience of each actor in relation to the phenomena under investigation	Legitimacy is gained by responding to institutional pressures. Argues that the institutional environment creates isomorphism (structures and practices) through coercive, normative and cognitive pressures.	Valuable, Rare, Inimitable and Non-substitutable resources (VRIN) Core competences and dynamic capabilities
<i>Unit of analysis</i>	Dyadic business relationships and business networks Network level dynamics and change processes	Individuals, groups of people, firms, sectors and non-governmental organizations  Typically sector, network or whole system analysis	The firm (as institutions), but also the institutional environment comprising multiple external and internal institutions.	Traditional RBV emphasises internal resources and the need to protect these; ERBV and NRBV focuses on inter-organisational relationships as sources of sustained competitive advantage
<i>Sustainability in Purchasing and Supply relevance</i>	Understanding how sustainability diffuses/spreads within networks Role of interaction with network actors (direct and indirect relationships),	Concepts such as ‘legitimacy’ and ‘urgency’ as represented in sustainability & stakeholder theory, may take precedence in future over more traditional	Pressures arise from non-economic institutions as government & NGOs but also economic actors such as industry associations promoting social standards. These are key drivers for	Competitive advantage, through differentiation, can be gained by sustainability actions if based on unique, socially complex resources and capabilities such as collaborative supplier

	inter-dependency/ connectedness embeddedness and network effects.	notions such as 'power' in the supply hierarchy.	sustainable supply practices. Partnerships with actors seen as important for legitimacy.	relationships and development.
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*Table 6: Comparing the four theoretical perspectives*

Stakeholder and institutional theories are often used and are complementary in important aspects. Both share a focus on environmental pressures on the firm from multiple actors with institutional theory focusing in particular in institutional and regulatory factors. Both share a view on how actors can gain legitimacy in their actions especially, which is a very important point, when firms seek to adopt a sustainability profile as inevitably many observers perceive such actions as being opportunistic, paying 'green lipservice', rather than a genuine wish to make a more long-term sustainable change.

Although the traditional RBV is predominantly preoccupied with nurturing internal resources and competences, the NRBV shifts the focus towards the external environment including inter-organisational relationships. Indeed, key to the NRBV is that sustained competitive advantage can be gained if they are based on unique, socially complex resources and capabilities, such as collaborative supplier relationships and development. Thus, the differences between NRBV and institutional theory are subtle. Blome et al (2014) argue that where institutional theory interprets legitimisation as "a process of institutionalisation, whereby external norms and beliefs are adopted without much thought (DiMaggio and Powell, 1983), the NRBV envisions legitimacy as instrumental, proactive and, more importantly, a deliberate pursuit that can ultimately enhance external beliefs, thereby creating newer and enhanced levels of legitimacy" (p. 35).

Although IMP theory has not yet provided a theoretical underpinning for a great number of studies on sustainable purchasing and supply management, the inherent focus on relationships and networks chimes with all of three perspectives. In the following we draw out some of the salient IMP characteristics in comparison with these theories and explore some opportunities for IMP-based research on sustainable purchasing and supply.

Firstly, IMP theory does not focus on legitimacy as a key construct, however, core to IMP theory is the assumption that an actor's actions is strongly affected by the actions of the actors in its network; this clearly resonates with the focus on institutional theory on supply chain level actions being the result of external pressure in the form of coercive, normative or mimetic (cognitive) nature (e.g. Shi et al., 2012).

Secondly, institutional theory focuses on isomorphism, while RBV (and NRBV) attempts to explain how companies differentiate according to their resources and capabilities. A contribution from IMP could be to demonstrate where companies can use their network ties to differentiate despite pressures to conform to 'type' as a result of homogeneous rules and regulations for example within Europe. Key to this is the assumption in IMP that each relationship is unique due to the interaction processes embedded within (Ryan et al, 2012). Hence IMP could be used to show how direct and indirect relationships (Ritvala and Salmi (2010), as well as strong and weak ties (Tate et al, 2013) provide unique opportunities to differentiate, avoiding isomorphic structures and responses and allow competitive advantage in the context of sustainability.

Thirdly, IMP theory has a stronger focus on relationship management: institutional and stakeholder theories in reality have little to say about relationship management. While both stakeholder and institutional theories do allow the classification of actor types manifest through levels of salience (legitimacy, urgency and power) or institutional logics (routines, rules, laws, conventions, paradigms and so on), yet the mechanisms within relationships between are largely ignored. Therefore there may be opportunities to explore how classifications of actors influences relationship processes as seen through the IMP lens, in order to study issues of fit and appropriateness of response.

Fourthly, where stakeholder and institutional theories typically perceive of the firm's stakeholder relationships as a set of direct relationships affecting the firm, IMP theory has less of a focal firm view, that is does not assume that any firm is in the centre of a network. IMP theory also has a distinct focus on understanding the interconnectedness and interdependency of relationships: as companies strive to spread or diffuse sustainability into their wider supply network (Tate et al, 2013) the IMP perspective could clearly be used to good effect.

Finally, IMP theory has traditionally focused on commercialized firms as the key actors in a business network. Recent attempts to apply an IMP perspective to the study of sustainable purchasing and supply have added 'non-business actors' to the networks being studied, such as regulators and NGOs (Crespin-Mazet and Dontenwill, 2012; Ritvala and Salmi, 2010). This is clearly an important conceptual development that requires more research, for example to explore differences between interaction processes relating to business to 'non-business' actors.

## CONCLUSIONS

As a result of a systematic literature review we find that a significant proportion of sustainable purchasing and supply management papers adopt predominantly Stakeholder, Institutional and Resource-based theories as their primary perspective. In comparison, relatively few papers over the past decades rely on the IMP theoretical perspective, despite the IMP interaction approach being ideally suited to the study of this rapidly growing research area. This finding leads us to conclude that IMP represents both an opportunity and 'missing link' for sustainability researchers seeking in future to understand firm interaction in a network environment. One possible explanation for the lack of IMP-based papers is the growth of new perspectives, which build on existing theories such as the Natural Resource Based View (NRBV). Another finding is that many papers adopt no dominant theory at all, apart from general supply chain management literature, whilst others combine multiple theories: typically Stakeholder and Institutional theory, as a means of increasing the potential for inter-organizational sense-making and explanatory power. With IMP strengths in interaction processes, customer-supplier relationship management and the conceptualisation of embeddedness of actors in complex business networks, sustainable purchasing and supply management research presents a largely untapped opportunity for IMP-based researchers, an opportunity that requires closer ties between IMP and the dominant theories discussed in this paper.

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