BOOK OF ABSTRACTS
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Foreword by the Conference Chairs

Stefano Ronchi & Federico Caniato
Full Professors of Purchasing and Supply Management
Politecnico di Milano School of Management

We are delighted to welcome you to the 28th International IPSERA Conference, which takes place at the School of Management of Politecnico di Milano. This is the first time the conference is held in Milan, an extremely active city in the present, merging ancient history with a strong impetus towards the future. We are very excited because this is the result of our strong commitment and involvement within this community in the last years: IPSERA values and research focus are totally aligned with our research and education activities. In selecting the theme of the conference, we tried to find something that people could remember and most of all something that would be meaningful for our research group, for our University, for our city.

The Ipsera 2019 conference theme is “Art and Science of Procurement”, which reflects two key faces of the procurement activity that are worth future research efforts from all of us. On the one hand procurement requires more and more the application of science and technology, analytical skills and quantitative methods; on the other hand, there is a need for art and creativity, ethics and behavioral skills. The digital transformation is opening new opportunities for the management of Purchasing and Supply Chains activities, making “big data” available and offering analytical tools to manage them, but also allowing networking and the sharing of innovative ideas. This enables both disruption of existing practices and technologies, as well as new ways to tackle sustainability challenges, e.g. through better transparency and control of supply chain risk.

The whole conference will take inspiration by Leonardo da Vinci, a man who was the essence of what we have just mentioned. He lived in Milan five centuries ago and he could integrate multiple faces all together: art and creativity, science and technology, living in the past but flying to the future... We have received a record-high number of abstracts and paper submissions: 194. Thanks to the help of the 74 members of the Scientific Committee, all of them received a double-blind review and in the end 157 final papers are now included in the conference proceedings: 49 competitive papers, 104 working papers, 4 practitioner papers.

The papers cover a broad range of purchasing and supply chain topics:

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The conference will provide a forum for academics and practitioners to present research papers and discuss the future developments of the field. This year we are proposing an innovative format for the presentation of working papers: shorter presentations by the authors, who will then ask a few questions to the audience to collect suggestions on how to develop their work.

In addition to the paper presentations in the parallel sessions, the conference will include:

- A Practitioner Keynote Speech by the CPOs of two major organizations: Thomas Udesen from Bayer and Valentina Fanni from Unicredit. They will provide two different perspectives on the current challenges of procurement in large multinational organizations in different industries.
- An Academic Panel about Purchasing and Supply Management Identity, in which Christine Harland will discuss with Lisa Ellram, Michael Essig, Guido Nassimbeni, Mark Pagell, Wendy Tate and Finn Wynstra.
- A Practitioner Panel about the contribution that CPOs expect from research and academia to help them address the current and future challenges. We have asked several CPOs from international companies in different industries to share their views and debate with us.

As usual, also the social part of the program will be rich of opportunities for enjoying the IPSERA community and the city of Milano:

- On Sunday evening we will have a Welcome Reception in the historical Atrium of the Rectorate of Politecnico di Milano
- On Monday evening we will enjoy a typical Milanese Happy Hour at Cafè Milano
- On Tuesday evening the IPSERA Gala Dinner will take place at the luxurious Villa Necchi Campiglio, a historical villa in the heart of the city

None of this would have been possible without the incredible effort of the Conference Organizing Committee. A special thank goes to Antonella Moretto, who has been the project manager of the entire conference, as well as the link with the IPSERA Committee. Christine Harland and Thomas Johnsen have given a fundamental contribution to the management of the Scientific Program. Simona Strepparola, Sergio Oliveri, Mirja Calgaro, Marta Re Ferrè, Martina Ulzega, Francesca Pastonchi, Sara Albè, Piera Castaldo, Dario Fecci, Toloue Miandar, Alessio Ronchini, and Liubov Pakhomova made the conference happen.
Part A: Competitive Papers by Submission

**CP 6 – Differences in project performance reviews and their effect on project outcomes**

Christian van der Krift, Josette Gevers and Arjan van Weele  
*Eindhoven University of Technology, Netherlands*

Although the application of performance reviews is believed to be beneficial for projects, there is little evidence to support this claim. Therefore, we studied the current application of and follow-up on performance reviews in projects. Results show that both the application of and follow-up on performance reviews differ between companies. We find that the use of performance reviews contributes positively to project outcomes, especially if they are applied bilaterally. Remarkably, whereas companies tend to review process variables, project outcomes are affected more by reviewing input and output variables. Hence, thoughtful consideration of the application of performance reviews is needed.

Keywords: Performance reviews; Project outcomes; Collaboration

**CP 12 - Implementing sustainable purchasing and supply management (SPSM): A Delphi study on competences needed by purchasing and supply management professionals**

Heike Schulze¹ and Lydia Bals²  
¹ Mainz University of Applied Sciences; London South Bank University, Germany  
² Mainz University of Applied Sciences; Copenhagen Business School (CBS), Germany

This research is about the development of a competence model for sustainable purchasing and supply management (SPSM) implementation. It addresses the research gap in this area with the aim to foster the integration of sustainability in purchasing and supply management (PSM) higher education and in professional training approaches for PSM professionals. The SPSM competence model is based on the findings of a systematic literature review and a Delphi study with 16 experts in the field of PSM and sustainability, applying the critical incident technique (CIT). The theoretical background is based on different academic disciplines.

Keywords: Sustainability competences; Purchasing & Supply Management; Delphi Study; Critical Incident Technique

**CP 14 - Managers’ Intention to Participate in the Process of Service Outsourcing: A Behavioral View**

Gilles Pache², Rudolf O. Large¹ and Nathalie Merminod²  
¹ CRET-LOG, Aix-Marseille University, France  
² University of Stuttgart, Germany

The Reasoned Action Approach (RAA) has been used for 40 years in social psychology to analyze human behaviors. In this article, the RAA is taken up in order to build an original framework for a better understanding of the degree of participation or the extent to which individual assumes responsibility for the outsourcing process of services. Four hypotheses based on the framework are tested as part of research conducted in Germany in 2018 with 201 managers in the fields of purchasing, logistics and supply chain management.

Keywords: Buying behavior; Logistics; Outsourcing; Participation; Reasoned Action Approach (RAA)
CP 17 - Contract duration: A barrier or bridge
Paul Hartman\textsuperscript{1} and Jeffrey Ogden\textsuperscript{2}
\textsuperscript{1} rgbsi federal, United States
\textsuperscript{2} University of North Texas, United States

Public/private partnerships are predominantly executed through the use of formal contracts capturing the responsibilities of each party in achieving performance objectives. There is an increasing need for suppliers to make investments which could reduce future-year costs of meeting contract performance objectives. This research addresses the following two questions: First, “how does buyer and supplier perception of risk influence contract duration?” and second, “how does contract duration influence supplier-side investment?” Structured interviews were conducted with buying agencies and suppliers actively engaged in public/private partnerships. Outcomes suggest properly structured long-term contracts may 1) provide risk mitigation mechanisms, and 2) facilitate supplier-side investment.

Keywords: Contract duration; Public/private partnerships; Supplier investment

CP 23 - Public infrastructure maintenance - risks and the downside of performance based contracting
Cees J. Gelderman, Janjaap Semeijn and Sjerp De Vries
Open University of the Netherlands

A trend towards performance-based contracting (PBC) can be observed in public infrastructure maintenance. PBC is an approach of tying the contractor’s payment to specified performance. We investigated PBC for the maintenance of highways and roads in the Netherlands. Functional specifications tend to change constantly, and the client tends to jump in and take over responsibilities, which contradicts PBC principles. Incentives encourage undesirable behaviours by contractors. At the end of a project a contractor may not take responsibility for cost, quality or time problems. Clients should recognize and acknowledge the actual balance of power in the relationship with their (main) contractors.

Keywords: Performance based contracting; PBC induced risks; Infrastructure maintenance

CP 25 - Impact of modular product structures and buyer-supplier integration on value creation
Vicky Sanders, Janjaap Semeijn and Cees J. Gelderman
Open University of the Netherlands

Modular product structures hold the promise of multiple benefits, such as component economies of scale, inventory reductions, improved order lead time and speed of new product introductions. This study provides insight into conditions enabling suppliers to benefit from such structures at the buying firm. An embedded case study was employed at Vanderlande Industries Nederland B.V. and three of its suppliers. High levels of buyer-supplier integration are imperative for suppliers to benefit from modular product structures. From a suppliers perspective, development integration must be present, intellectual property rights are kept for the development, and the buying firm has a flow-based nature.

Keywords: Modularization; Modular product structures; Buyer-supplier integration; Supplier base
The use of fertilizers impacts the quality of our food, and safety. We interviewed eight high-level managers in the fertilizer industry about the benefits of transparency and traceability. Respondents perceive improvement of product quality due to better root cause analysis. Negative perceptions are related to fears for loss of reputation. Full fertilizer supply chain transparency appears at odds with purchase protection and competitive advantages, and also with social performance outcomes and liability. A solution could be to provide more transparency in the fertilizer supply chain while putting limits on who has access to data and coding of such data.

Keywords: Transparency; Traceability; Fertilizer industry

It is thought that cooperative purchasing overcomes barriers and enforces drivers for sustainability. We focus on the relation between cooperative purchasing and sustainability, in a cooperative purchasing organisation and its members. Several barriers hinder the full potential of cooperative purchasing for sustainability. Members seek lower prices and reduced risks, and firmly believe there is a trade-off between costs and sustainability. Mainly socially desirable statements come to the fore, pointing at external drivers for sustainability. To open the full potential of cooperative purchasing for sustainability, parties should align their goals and make sustainability an explicit part of the cooperative-purchasing strategy.

Keywords: Cooperative purchasing; Sustainable Supply Management; Sustainability; European food sector; Stakeholders

Successful outsourcing of IT projects to specialized suppliers is of critical importance to organizations. Many studies have investigated antecedents of IT outsourcing success, although research seems to have overlooked the combined impact of control (outcome, process) and client capabilities. We surveyed 137 project managers supervising IT outsourcing projects. The results of our study confirm that process control as well as outcome control have a significant impact on IT outsourcing success. The findings of our study contradict the common knowledge and widely held belief that IT management capabilities of clients are important for achieving IT outsourcing success.

Keywords: IT outsourcing; Process control; Outcome control; IT management capabilities; Supplier management capabilities
**CP 43 - One way or another – The relationship between trust and transparency in buyer-supplier relationships**
Felix Jeschke, Antonia Kappel, Wolfgang Buchholz and Cathrin Ruppe
FH Münster - University of Applied Sciences, Germany

Based on a variety of environmental, technological, and product-orientated changes, there has been a shift towards increased collaboration between buyers and suppliers. This paper examines the mutual influence of trust and transparency at different developmental stages of these collaborative relations. In particular, the research investigates the existence of a direct correlation between trust and transparency, as well as indirect dependencies to each other through environmental factors. An extensive literature review combined with an exploratory-qualitative World Café method was conducted in an attempt to fill the research gap regarding the correlation of trust and transparency in buyer-supplier relationships.

Keywords: Trust; Transparency; Information sharing

**CP 45 - Enigma digital - paving the path between conceptual mess and empirical overload**
Cornelia Anika Elsaesser, Andreas Glas and Michael Eßig
University of the German Federal Armed Forces, Germany

Digitalization is omnipresent: digital technologies pervade products and services. In addition, keywords like Industry 4.0 made their way on to almost every presentation, seemingly becoming the backbone for every business organization including purchasing. However, the expectations regarding digitalization vary widely, as an operational definition of the phenomenon is missing. This research aims to close this conceptual gap by identifying common characteristics of digitalization. For this purpose, an operational definition is derived based on deductive structure-discovering methods, followed by two interview series: one series addresses respondents from "procurement digitalization", the other targets operational procurement in the German automotive industry.

Keywords: Digital; Digitalization; Digitization; Purchasing; Automotive

**CP 46 - How do buyers actually negotiate with their leverage and strategic suppliers? Analysis of negotiation topics, tactics and outcomes**
Wim Lambrechts, Cees J. Gelderman, Raymond Weelink and Janjaap Semeijn
Open University of the Netherlands

This study focuses on negotiation topics, tactics and outcomes for leverage and strategic supplier relationships. We interviewed professional purchasers about their first-hand negotiating experience within different supplier relationships. The interviews revealed the many topics and tactics that actually apply to B2B negotiations. Different topics and tactics were reported for convenience partnerships, real strategic partnerships and locked-in partnerships. Interestingly, we found a hybrid of integrative and distributive tactics in all relationships. Our findings contradict the widely held belief that manipulative tactics and hard bargaining are less applied in real strategic partnerships compared to leverage and locked-in relationships.

Keywords: Negotiation; Purchasing; Integrative tactics; Distributive tactics
CP 47 - Performance-based contracting in a service triad: Exploring actor-perceived barriers  
Riikka Raukola¹, Joona Keränen² and Mervi Vuori²  
¹ Aalto University, Finland  
² Lappeenranta University of Technology, Finland  

Our aim is to explore barriers to performance-based contracting (PBC) in a triad in the paper and forest industry. A rich and embedded single case study comprising 25 interviews with one purchasing department, eight mills as internal clients and three suppliers was conducted. The findings show that increased workload, change resistance, conflicting interests and design of fair compensation are considered as barriers to PBC by all actors alike, yet also actor-specific barriers are found. We observe misalignment and tension between the actors related to PBC. This study contributes to discussion on PBC implementation answering to calls for more triadic research.  

Keywords: Performance-based contracting; Service triad; Actor perceptions; Barriers

CP 48 - The myopia of purchasing in selecting suppliers in a technologically uncertain environment  
Ala Pazirandeh¹, Lisa Melander¹ and Finn Wynstra²  
¹ Chalmers University of Technology, Sweden  
² Rotterdam School of Management, Erasmus University, Netherlands  

With this study, we explore how supplier selection can be affected by the constant need of firms to stay updated with and integrate, new technology. As a result of such pressure, firms are facing the entrance of new suppliers, such as startups, innovation hubs, or companies from other sectors into their supplier bases. These new suppliers, at times, have little to no knowledge of the industries, which is changing the purchasing function. We explore this phenomenon by studying a case of a major auto manufacturer using 23 interviews with both the supply and purchasing side.  

Keywords: Supplier selection; Automobile industry; Technologically uncertain supplies

CP 49 - Additive manufacturing in military and humanitarian missions: Advantages and challenges in the spare parts supply chain of the Dutch Army  
Jelmar den Boer¹, Wim Lambrechts² and Harold Krikke²  
¹ Royal Netherlands Army  
² Open University of the Netherlands  

This study focuses on the impact of Additive Manufacturing (AM) on the sustainability and responsiveness of the spare parts supply chain of armed forces. Desk research, systematic literature review and semi-structured interviews with different stakeholders demonstrate that AM can reduce lead times, waste, energy use, spare parts inventories, as well as improve system readiness of armed forces, specifically during military and humanitarian missions abroad. However, challenges must be met. This paper connects AM and the growing importance of sustainability with the need for well-prepared operational armed forces and outlines an agenda for future research.  

Keywords: Additive Manufacturing; Sustainability; Supply Chain Management; Innovation
**CP 54 - A systematic review of empirical and normative decision analysis of risk in sustainable supply chain management**

Eliciane Maria Silva¹, Mayra Oliveira Ramos¹, Anthony Alexander² and Charbel Jose Chiappetta Jabbour³

1 Methodist University of Piracicaba; Department of Production Engineering, Brazil
2 University of Sussex Business School, Operations and Information Systems, United Kingdom
3 Montpellier Business School, Montpellier Research in Management, France

This paper aims to systematically review literature on sustainability-related supplier risk management from the perspective of the two branches of decision theory, rationalist, normative models on how decisions should best be made, and behavioural, empirical models of how decisions are actually made in reality. We use a four stages typology combining a number of decision making frameworks. This finds multi-criteria decision models the most prevalent among 47 papers found, but with an increasing use of fuzzy heuristics. 14 articles had an approach on sustainability risk centred on ethical business conduct issues, and corporate social responsibility is employed in 8 papers.

Keywords: Sustainable supply chain; Decision making; Behavioural decision making; Risk management; Analytical model

**CP 58 - The “I” in Sourcing Teams: Motivational Effects on Status Conflict and Team Outcomes**

Henrik Franke¹, Stephanie Eckerd² and Kai Foerstl¹

1 German Graduate School of Management and Law (GGS), Germany
2 IUPUI - Kelley School of Business, United States

Our research extends knowledge of functional goals as a determinant of managers’ behavior in cross-functional sourcing teams by intersecting the perspective of individual psychological needs. We find that psychological needs significantly affect conflict in sourcing teams and interact with functional goal misalignment to influence both team consensus and final performance. Our study contributes to the growing behavioral literature on sourcing teams and to the scarce team-level motivation literature. Our findings provide guidance on how to compose sourcing teams to optimize their decision outcomes when functional goal misalignment exists.

Keywords: Sourcing; Team; Goals; Psychological needs

**CP 68 - Fit in buyer-supplier relationships: Examining compatibility and complementarity of culture, operations and resources in satisfactory buyer-supplier relationships**

Marie Sende, Frederik Vos and Holger Schiele

University of Twente, Netherlands

Purchasing function can aim to satisfy suppliers to obtain a preferred customer status with important suppliers to receive a preferential treatment. This research examines whether cultural compatibility, operational compatibility and resource complementarity of buyer and supplier do influence the supplier’s perception of the buyer and lead to a preferred customer status. A differentiation between direct and indirect procurement is made. The results show that cultural compatibility is an important influencing factor for achieving supplier satisfaction. Operational compatibility has shown an effect on preferred customer status in the context of indirect procurement, whereas resource complementarity has an effect for direct procurement.

Keywords: Organizational fit; Compatibility; Complementarity; Supplier satisfaction; Indirect procurement
**CP 69 - Corporate culture and its impact on supplier satisfaction: Is good relational behaviour always relevant in buyer-supplier relations?**

Annina Henn, Frederik Vos and Holger Schiele  
*University of Twente, Netherlands*

The increasing importance of preferred customer status and supplier satisfaction unveils new opportunities to gain competitive advantages as buying firm. Relational behaviour plays a major role to have satisfied suppliers. The goal of this quantitative research paper is to identify the interaction effect of a suppliers’ corporate culture and relational behaviour on supplier satisfaction through polynomial regression. Results show that intensifying the relationship with suppliers, that have a high focus on stability and control and that are not highly flexible, has the most potential to improve supplier satisfaction through relational behaviour.

Keywords: Supplier satisfaction; Corporate culture; Relational behavior; Buyer-supplier relationships; Polynomial regression

**CP 83 - I Hear You: The Impact of Collegial Advice-giving and –taking on Buyers’ Cross-functional Interactions**

Jiachun Lu¹, Lutz Kaufmann¹ and Craig Carter²  
¹ WHU – Otto Beisheim School of Management, Germany  
² Arizona State University, United States

While the PSM literature seems to assume cross-functional sourcing teams as a clean-slate, the sociology and psychology research demonstrate that overlooking previous interactions limits our understanding of team dynamics. Boundary-spanning buyers constantly share and acquire knowledge via (in)formal communication, and these exchanges also occur prior to the formation of formal sourcing teams. Building on social exchange and impression management theory, this research focuses on effects of informal/casual advice-giving and –taking prior to establishing the sourcing team. Results from scenario-based experiments show that advisors’ negative experience of advice-rejection overshadows activities, interpersonal relationships, and team dynamics in the ensuing cross-functional sourcing collaboration.

Keywords: Cross-functional sourcing team; Advice; Scenario-based experiments; Social exchange theory; Impression management

**CP 85 - Procurement practices for home care of Finnish and Dutch municipalities: a country comparison**

Niels Uenk¹ and Suvituulia Taponen²  
¹ University of Utrecht - Public procurement research centre, Netherlands  
² Aalto University, Finland

We compare how Finland and The Netherlands, organise home care services, both in legislation and in procurement practices. In both countries municipalities are responsible for coordinating home care. We find Finnish municipalities rely to a great extent on inhouse provision, and when contracting, use lowest price competitive procedures. Dutch municipalities rely completely on outsourcing, awarding contracts on quality criteria. Both countries have ‘open’ systems, where every qualifying care provider is permitted to provide care – relying on clients’ choice. From an agency theory and service triad perspective Dutch municipalities, and Finnish citizens are more at risk of care provider opportunism.

Keywords: Home care; Country comparison; Public procurement; Service triads
Public procurement has an important financial impact and the focus is shifting towards a policy instrument to promote sustainability and innovations. The question arises which skills public procurement professionals need. Individual competencies are key in the success of this function and other skills sets than in the past are increasingly needed. There is a gap in literature on individual public procurement skills. This World Café method study explores which competencies lead to future success in innovation procurement and strategic business partnership. The public sector requires strategic, communicative and entrepreneurial procurement professionals.

Keywords: Public Procurement; Future Skills; World Café method

Organizations use various forms of organizational controls to manage product development (NPD) outsourcing. Controls can either trigger compliance or prompt intrinsic motivation. Building on self-determination theory (SDT), this study examines the influence of outcome, behavior, and clan control on supplier mechanical compliance and intrinsic motivation. The results show that outcome control promotes mechanical compliance as it discourages a supplier from utilizing its own idiosyncratic knowledge sometimes, but behavior control does not induce mechanical compliance. Clan control reduces mechanical compliance. The findings also reveal that outcome and behavior control does not undermine the intrinsic motivation, whereas clan control stimulates intrinsic motivation.

Keywords: Supplier mechanical compliance; Intrinsic motivation; Outsourcing; New product development; Organizational controls

In response to cost pressures, capacity constraints and increasing commoditization of air travel, many airlines set up service triads. This involves outsourcing flight operations, which often comes at the expense of end-customer satisfaction. An experimental study with 456 participants shows that the mere act of outsourcing causes dissatisfaction because customers feel treated unfairly, manifested in a violation of distributive justice perceptions. However, the analysis of customer survey data obtained from 298,744 airline passengers reveals that an airline can mitigate this negative effect inherent to service triads by ensuring that outsourcing partners perform well on key service elements, such as onboarding.

Keywords: Service triads; Outsourcing; Customer satisfaction; Justice theory
**CP 90 - Building customer-centric purchasing and supply organizations: an action research study of an aftersales supplier management team at an automotive manufacturer**
Nadine Kiratli, Diogo Cotta and Marco Dammer
Maastricht University, Netherlands

Taking an inductive approach, this paper investigates the concept of customer centricity and its drivers in servitized supply chains. Using the case of aftersales support services at an automotive manufacturer, the authors conduct action research involving one cycle of planning, implementation, observation and reflection. Analysis of interview data gathered from three supplier management teams of the automotive manufacturer identified two actions. Implementation and subsequent evaluation within one supplier management team reveal that improving processes by means of introducing consolidated reporting tools and influencing corporate culture through revising the team mission statement help to build more customer-centric purchasing and supply organizations.

Keywords: Customer centricity; Purchasing and supply organizations (PSOs); Action research

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**CP 93 - Exploring patterns in sustainable public procurement: an analysis of > 140.000 public procurement notices of Belgian contracting authorities**
Jolien Grandia and Peter Kruyen
1 Erasmus University Rotterdam, Netherlands
2 Radboud University, Netherlands

The nature and extent of sustainable procurement is perceived to vary greatly, but little is known about how this actually varies. Using automated coding techniques over 140.000 procurement contract notices (published between 2011 and 2016) from Belgian public contracting authorities were analysed to assess the current state of sustainable procurement, and identify patterns in the level and nature of attention for sustainability. Most notably we found that attention for sustainability did not increase over time, focused on environmental sustainability, and varied between regions within Belgium.

Keywords: Big data; Sustainable procurement; Public procurement; Automated coding

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**CP 96 - A balancing act: The purchasing boundary spanner as a manager of tensions in buyer-supplier relationships**
Martin Norlyk, Chris Ellegaard and Hanne Kragh
Aarhus University, AU BSS, Department of Management, Denmark

Motivated by the competitive edge well managed supplier relationships can generate, researchers have increasingly adopted a boundary spanning lens and emphasized the importance of purchasing boundary spanners. In the process, this research has touched upon tensions experienced by the boundary spanners. However, a comprehensive understanding of these tensions has not yet been established. With theoretical anchors in classical boundary spanning literature and recent purchasing and supply management (PSM) literature, the present conceptual article reduces this gap by uncovering the detailed nature of three types of tensions 1) informational, 2) relational, and 3) representational.

Keywords: Boundary spanner; Buyer-supplier relationships; Tensions
**CP 106 - Learning to be risk averse: evidence from a multi-echelon supply chain**

Alessandro Ancarani¹, Carmela Di Mauro¹, Giulia Crocco¹ and Florian Schupp²

1 Università di Catania, Italy
2 Schaeffler Industries, Germany

This study investigates the impact of risk aversion on orders and inventory holdings in a multi-echelon supply chain, and explores whether this impact is affected by experiential learning. The methodology applied is that of observational studies, while the multi-echelon supply chain is modelled through the classical Beer Game. Participants in the study are professional purchasing professionals. Results suggest that experience strengthens the impact of risk aversion by leading to higher orders and inventory holdings, consistent with the predictions of the hot stove effect model. Implications for supply and inventory management are derived.

Keywords: Risk Aversion; Supply chain; Supply management; Learning; Beer Game

**CP 107 - Managing supply chains for social impact: insights from migrants work integration**

Annachiara Longoni¹, Davide Luzzini² and Madeleine Pullman³

1 ESADE Business School, Spain
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3 Portland State University, United States

Social enterprises have a relevant role as focal organizations for managing supply chains to address social problems. The presence of misaligned institutional logics between these focal organizations and their supply chain stakeholders generates tensions. Analyzing seven dyadic relationships between a single focal social enterprise and its supply chain stakeholders, we investigate how relationship management mechanisms (relationship governance, power and trust) are used to manage such tensions. We relate different relationship management mechanisms to specific tension management approaches (i.e., integrative, win-win and paradoxical) and offer propositions based on our findings.

Keywords: Social impact supply chain management; Relationship management; Institutional logics; Tensions; Paradoxical approach

**CP 110 - Modern slavery in asymmetric supply chains: Power plays through strategic ambiguity**

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Through the Modern Slavery Act (2015), the UK government has demonstrated its commitment to tackling modern slavery in supply chains. Antithetical analysis of 65 modern slavery statements reveals how large organisations use asymmetrical power (market, social, and political), and strategic ambiguity (goal, authority, and means), as a political and commercial resource to preserve their dominance and limit accountability. We identify three areas of ambiguous power play: reduction, responsibility, and reassurance. An explanatory model is developed to understand organisational strategies, identified as: defensive reassurance, temporal distancing, limit responsibility, and collective action.

Keywords: Modern slavery; Modern Slavery Act; Asymmetric power; Ambiguity
**CP 115 - Types of partnerships for innovation and atmosphere, a symbiotic relationship for performance**
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2 ESSEC Business School, France
3 HEC, France

In collaboration for innovation, links between interactions and performance have been investigated. Nevertheless, there is poor evidences on the role of the atmosphere on these links. Based on the analysis of a cross-industrial sample of 160 French vertical collaborations for innovation, we conducted a mediation analysis to assess how the partnership types affect the performance through the atmosphere. We show that some dimensions of atmosphere are only conducive to performance for some types of partnership.

Keywords: Dyadic relationship; Partnership; Innovation; Performance; Atmosphere

**CP 116 - An industry case study to address the need for a practical sourcing risk assessment**
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2 Universita di Bergamo, Italy

Considerable research has been published on supply chain risk management and specifically on sourcing risk assessment. These publications cover a wide range of theoretical concepts and propose diverse methods that companies can practice. However, the steps and evolution that any given company undergoes prior to reaching an applicable risk assessment solution remains unclear. This paper reports an industry case study conducted on a multinational manufacturing company currently undergoing a transformation in sourcing strategy. The case study brings to light a sequence of events that have brought to the company’s purchasing organization the need to adopt a risk assessment method.

Keywords: Case study; Home appliance manufacturing industry; Supply risk assessment

**CP 124 - Startup Meets Corporate: The Multiple Facets of the Engagement between Corporates and Startups**
Alexander Kinski and Christoph Bode
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The relationship between corporates and startups offers great potentials for both sides. The corporates can benefit from the startups innovativeness and the startups get access to complementary resources in order to scale and further develop their idea. However, startups have multiple facets, which makes the engagement for large firms but also startups challenging. This study uses a qualitative research approach to investigate the dyad between corporates and startups. The findings show differences in the aims of service and manufacturing startups, the corporates challenges, and bring back negotiation power to startups, despite the dominant position of corporate “sharks” in the relationship.

Keywords: Startups; Service Innovations; Entrepreneurship; New Ventures; Collaboration
**CP 130 - Applying different levers for supply chain sustainability: control and governance mechanisms in a cross boundary setting**
Joost de Haan-Hoek, Wim Lambrechts, Janjaap Semeijn and Marjolein Cj Caniëls
Open University of the Netherlands

The rise of global supply chains as well as attention to the Triple Bottom Line (TBL) provides organizations with new conditions and strategy paradoxes to be dealt with. This study of a large multinational organization with TBL focus provides a comprehensible analysis of the use of control and governance mechanisms in supply chain context. Through the Levers of Control framework, the application of these mechanisms both internally and across organizational boundaries is shown. The interplay between levers helps in dealing with the in itself paradoxical nature of TBL goalsetting and to pursue a holistic approach of sustainable supply chain management.

Keywords: Levers of control; Triple bottom line; Sustainable supply chain management; Control; Governance

**CP 131 - Supply chain performance deficiencies in construction projects due to lack of information sharing**
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2 Linkoping University, Sweden

The purpose is to explore the potential of increased supply chain performance by improved information sharing between suppliers and contractors in the construction project. Four suppliers are studied, representing different combinations of supplying materials with few or continuous deliveries during the project. The study shows that, in order to improve performance, suppliers need different information sharing practices depending on if they continuously present at site or have few deliveries. Based on this and information sharing literature, we have developed a framework of information sharing practices differentiating what suppliers need, including how and when to exchange it.

Keywords: Information sharing; Planning; Construction industry; Supplier performance

**CP 140 - Purchasing ambidexterity: how it contributes to firm’s innovation capabilities**
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2 AUDENCIA Business School, France
3 Savoie University, IAE Savoie Mont-Blanc, France

This research investigates the recent concept of purchasing ambidexterity and aims at better understanding how purchasing contributes to firm’s innovation capabilities. We illustrate how the four types of ambidexterity (structural, sequential, contextual and managerial ambidexterity) can explain purchasing ambidexterity. We assess the tensions and the complementarities between different types of ambidexterity that can be found in a purchasing function, through the in-depth examination of a large firm which successfully achieves purchasing ambidexterity, enabling purchasing to contribute to innovation. Among other findings, we describe how contextual and managerial ambidexterity support structural and sequential ambidexterity, and we suggest some managerial implications accordingly.

Keywords: Purchasing; Innovation; Ambidexterity
**CP 142 - Cost versus Innovation Leaders: When do they need Supply Network Mapping? The impact of SNM on purchasing performance**

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2 University of Twente, Netherlands
3 University of applied sciences Münster, Germany

Buying firms lack transparency about supplier relationships in their networks. The application of Supply Network Mapping can help to analyze these relationships. However, the impact of SNM on the purchasing performance has not been explored yet. Moreover, companies with different competitive strategies might use it differently. Therefore, this paper tests the impact of SNM on the purchasing performance. A multi-group analysis compares when cost and innovation leaders use it. We show that information quality and SNM improve the purchasing performance. Moreover, cost leaders use SNM for supplier relationships with sub-suppliers, while innovation leaders use it for relationships with other customers.

Keywords: Supply Network Mapping; Supply Chain Transparency; Competitive Advantage; Multi-Group Analysis

**CP 143 - Knowing your suppliers: people or media as key sources of information?**

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Most companies have realized the high importance of becoming the preferred customers of their suppliers. However, they cannot evaluate their own customer attractiveness properly. In order to make the assessment of the own customer status possible, this paper analyzes the impact of several information sources on the preferred customer status knowledge, supplier satisfaction knowledge and knowledge of alternative supplier relationships with other customers. Testing these hypotheses on a sample of 624 purchasers, we show that people provide more relevant information than media. In particular, the suppliers, competitors and other actors are very important information sources.

Keywords: Preferred customer status; Supply chain transparency; Supplier Relationship Management; Structural Equation Model

**CP 144 - Estimating the Financial Effects of Mitigating Commodity Price Volatility**

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2 Department of Supply Chain Management and Analytics, School of Business, Virginia Commonwealth University, United States
3 Dipartimento di Economia Aziendale, Università degli Studi di Verona, Italy

Many firms have an array of available approaches for reducing financial losses caused by commodity price changes. This paper provides guidance for more accurately estimating the potential financial effects of commodity price risk mitigation approaches. Based upon two prominent methodologies, namely Total Cost of Ownership (TCO) and Real Options Valuation (ROV), this paper illustrates how commodity price risk mitigation strategies can be analyzed with respect to their effect on costs and performance. A practical example illustrates how TCO and ROV can provide useful insight in estimating the costs and benefits related to the use of commodity price volatility mitigation approaches.

Keywords: Supply Chain Risk; Commodity Price Volatility; Risk Mitigation; Total Cost of Ownership; Real Options Approach
**CP 147 - The missing link – strategy implementation in purchasing category teams**
Anders Peder Lysholm Hansen¹ and Morten Munkgaard Møller²
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2 Aalborg University, Denmark

This paper investigates strategy implementation in cross-functional purchasing category teams in a multiple case study in two different companies. The purpose of the paper is to explore how purchasing strategy implementation takes place on the category level of companies, a level which has remained relatively unexplored in literature. The findings suggest that strategy is not implemented on the category level. The performance management system and management activities do not support successful implementation of business and/or purchasing strategy in the teams.

Keywords: Purchasing strategy; Strategy Implementation; Category Management; Case studies

**CP 176 - On the dynamic nature of sustainability signalling, legitimation and sustainable supply chain management: a signalling theory perspective**
Leonardo Marques and Sara Aragão
Coppead Graduate School of Business, Brazil

This study is a study of reputational signalling and its role to SSCM. It is unclear how firms communicate with and influence their stakeholders through reputational signals to drive their sustainability agenda and how this process evolves over time. This paper investigates how a focal firm engages manages corporate reputation to communicate sustainably-sound practices. The study offers three archetypes on how firms address the sustainability agenda: first mover, last minute adopter, and mock complaint. The paper also discusses the links between legitimation and reputation, which is influenced by the fact that sustainability outcomes are harder to manage than financial outcomes.

Keywords: Purchasing strategy; Strategy Implementation; Category Management; Case studies

**CP 182 - The geography of suppliers and retailers in the fashion-textile industry**
Matteo Kalchschmidt, Sebastian Birolini, Mattia Cattaneo, Paolo Malighetti and Stefano Paleari
Università degli Studi di Bergamo, Italy

This paper investigates the relationship between the geographic localization of the supply network and the retail chain of 11 multinationals in the fashion and textile industry. We propose a modelling framework to analyze suppliers’ network geographical distributions in relation to three firms’ characteristics: firms’ size, retailers’ concentration and the degree of leanness. Findings highlight the presence of heterogenous suppliers-retailers geographical settings excluding the existence of a unique pattern across the dimensions investigated. Firms are found to implement differentiated supply strategies across continents, being exposed to different degree of supply risk.

Keywords: Supply network; Supplier localization; Supply geography
CP 183 – The role of purchasing in the diffusion of sustainability in supply networks: A systematic literature review
Toloue Miandar1, Thomas E. Johnsen2 and Federico Caniato1
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2 Audencia Business School, France

One of the most difficult challenges facing companies today is how to control and implement sustainability across entire supply networks. Growing body of research is dedicated to this challenge but the role of purchasing in sustainable supply network development remains under-researched. This paper provides a systematic literature review of the role of purchasing in the sustainability diffusion process. We identified and analysed 106 papers published in 21 peer-reviewed journals of the field. The paper classifies strategies and practices for diffusing sustainability in supply networks, it identifies the role of purchasing and how purchasing interacts with external stakeholders in this process.

Keywords: Supply networks; Sustainability; Purchasing; Diffusion; Stakeholders

CP 185 - The blind spot of supplier involvement in New Product Development: An exploratory study of supplier benefits
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2 TU Berlin, Germany

Fierce competition and fast-paced business environments pressure firms to innovate continuously. Involving suppliers in new product development is therefore a pertinent strategy. The benefits that suppliers can expect from such involvement, however, are virtually unexplored. To fill this void, we systematically review PSM and B2B marketing literature for supplier benefits. By means of reviewing segmentation literature and semi-structured interviews we identify criteria that guide buyers’ decision to allocate specific benefits to different suppliers. Finally, we perform cluster analysis on survey data obtained from 40 suppliers of an automotive OEM to provide a first empirical taxonomy of supplier benefits.

Keywords: Supplier involvement; Supplier benefits; Cluster analysis

CP 188 - Cross-border e-commerce firms as supply chain integrators: A service dominant logic perspective
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2 University of York, United Kingdom
3 Broad College of Business, Michigan State University, United States
4 University of Southampton, United Kingdom
5 International Business School Suzhou, Xi'an Jiaotong-Liverpool University, China

Cross-border e-commerce is becoming more and more popular around the world. With the development of technology, competition has gradually shifted from commodity (cost, quality etc.) to the supply chain service capacity of e-commerce. This paper adopted a multiple case study method and selected four Chinese cross-border e-commerce enterprises. Data were collected from 41 interviews, secondary data and field visits. Adopting Service Dominant Logic in supply chains, four sets of propositions provided answer to how do cross-border e-commerce firms provide services to e-tailors and other platform users from the view of three flows, i.e. information, logistics and capital flows.

Keywords: Cross-border e-commerce; Service dominant logic; Information flow; Logistics flow; Cash flow
**CP 192 - Capturing the value of big data for supply chain performance: the moderating effect of Information Technology dynamic capabilities**
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2 Warwick University, United Kingdom

We explore how information technology dynamic capabilities influence the effects of the use of big data analytics on supply chain performance. We draw on pertinent literature and develop a conceptual framework and hypotheses on how three eminent organizational dynamic capabilities (data management, analytical supply chain process management and supply chain performance management) affect several aspects of SCM performance. Based on a large survey amongst supply chain professionals and the use of the partial least squares method, we generate insights regarding the detrimental effect that these capabilities have on the potential of big data analytics.

Keywords: Big Data Analytics; Supply Chain Management; Dynamic Capabilities

**CP 193 - Buyer-supplier relationships: The implications of destructive personalities and problematic relationships**
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2 Bond University, Australia

The aims of this paper are twofold. Firstly, we consider the literature relating to buyer-supplier relationships (BSRs) giving specific attention to personality, personality traits and personality disorders. We are particularly interested in the impact of toxic personality traits, and their ramifications for BSRs. Secondly, we present an overview of our study into psychopathic personality disorder (PPD) in procurement executives, specifically reporting on our main findings concerning the incidence and significance of PPD in the study population. We conclude by reflecting on the implications of disordered personalities in business relationships given the prevailing assumptions of rational behavior in extant BSR research.

Keywords: Buyer relationships; Personality; Social Exchange Theory; Psychopathy

**CP 194 - Impact of exchange rate on the Russian automotive value chain**
Miia Pirttilä, Veli Matti Virolainen and Timo Kärri  
LUT, Finland

In recent years, the Russian economy has wrestled with the weakened ruble rate. The price of oil has guided the ruble rate for a long. We show the impact of exchange rate on the profitability and working capital of the automotive value chain. The correlation between the Brent oil price and exchange rate was strong. The stronger the ruble rate is, the more profitable are companies in automotive industry. The cash conversion cycle of the value chain was prolonged reaching 65 days. Linear regression models suggest that (DIO), (DSO), and (DPO) lengthen in the value chain when the ruble rate falls.

Keywords: Exchange rate; Working capital of value chain; Return on assets
CP 198 - Don’t build a bridge to nowhere studying gaps in the path to successful supplier enabled innovation
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2 Florida Gulf Coast University, Lutgert College of Business, United States
3 Weber State University, United States

The body of research into supplier enabled innovation has grown over the last few years but is somewhat biased towards the interactions between buying and selling firm. In this study we conduct multiple case studies of the internal upfront preparations that a buying firm needs to go through in order to be capable of successfully engaging in SEI. Findings indicate that there are barriers to avoid clear. This paper presents case study findings, our presentation will include survey and focusgroup findings to triangulate findings but due to length limitations these are not included here.

Keywords: Supplier enabled innovation; Internal preparations; Multiple case studies
Part B: Working and Practitioner Papers by Submission

WP 5 - The impact of climate change and extreme weather conditions on wine growing regions in South Africa: A procurement perspective
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2 University of KwaZulu-Natal, South Africa

Climate change and extreme weather conditions have implications for all agricultural activity (Mozell & Thach, 2014). South Africa falls within a vulnerable region as far as climatic change is concerned due to its geographical location and its lower level of coping capacity. Climate change is predicted to impact directly on South Africa’s mean annual temperature and rainfall ranges, influencing pest and disease distribution, flowering and fruiting seasons and ground water resources (Kuhn, 2017).

Keywords: Climate change; Extreme weather conditions; Wine industry

WP 8 - The impact of institutional pressures, on the adoption of green supply chain management: a configuration approach
Ruoqi Geng¹, Jing Dai² and Helen Walker¹
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2 The University of Nottingham China

As the global production base, China is currently the world’s largest and fastest-growing emerging economy, exporting a wide variety of merchandise and accounting for 40% of the worldwide manufacturing outputs of different products. Environmental issues have been observed to be a critical factor affecting the prosperity of Chinese manufacturing enterprises. Drawing on institutional logic, an extension of institutional theory, this study explores the contingent role of multiple institutional logics in the relationship between customers’ green expectation and firms’ adoption of GSCM practices in China.

Keywords: Green supply chain management; Institutional pressures; China

WP 9 - When Does Buyer Pressure Elicit Supplier Environmental Transparency? The Joint Effect of Internal and External Drivers
Veronica Villena and Suvrat Dhanorkar
The Pennsylvania State University, United States

We study how two key drivers—external buyer pressure and a supplier’s internal climate change mechanisms—affect supplier transparency, both separately and jointly. To test our hypotheses, we gathered data from the Carbon Disclosure Project’s supply chain program (CDP-SCP) and ASSET 4 for a sample of 835 suppliers operating in 41 countries during 2013-2015. The results show that suppliers with climate change strategy and managerial incentives exhibit, on average, greater environmental transparency. Also, the results show that the degree of influence buyer pressure can exert on supplier transparency is significantly weaker (stronger) for suppliers with (without) climate change strategy and managerial incentives.

Keywords: Transparency; Supply chain; Environmental management
**WP 15 - Certification for sustainability in food commodities**
Veronica Leon-Bravo\(^1,2\) and Federico Caniato\(^3\)

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2 Politecnico di Milano – School of Management, Italy

Sustainability certifications are more frequently visible in food products as a guarantee of origin, quality and safety and, as a sign of commitment to responsible sourcing practices. International organizations and industry associations propose a variety of private certification schemes. However, there are some challenges in these certification schemes for commodities to be analyzed. The objectives in this paper are: i) to identify the complexities regarding sustainability certification in commodities’ supply chains, ii) to contrast the main schemes of certification for sustainability, and, iii) to identify the challenges and benefits of certification. This study analyzes two commodities: coffee and cocoa.

Keywords: Sustainability; Certification; Food commodity

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**WP 18 - Measuring procurement process compliance: Cases of Finnish security organizations**
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2 National Defence University, Finland

This paper studies the public procurement process from the compliance point of view. First, the article reviews the public procurement process, its regulation framework and procurement maturity models. In the empirical section, the compliance of public procurement process is studied through Court decisions of bid protests of security organisations in Finland. The Court found security organizations culpable in nine cases, that is 0,26 cases per 100 purchases. The most common errors in the procurement process were related to the tender rules. Compliance and procurement proficiency may be increased by training and knowledge exchange solutions.

Keywords: Public procurement; Security organizations; Procurement process

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**WP 19 - Dyadic negotiation preparation (buyer versus supplier): a roadmap**
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2 Audencia Business School, France

Little research has investigated from a dyadic perspective, how buyers and suppliers should prepare their negotiations and what should be their roadmap according to the product and relationship characteristics. Extrapolating from the Kraljic (1983) matrix and Bensaou contextual relationship profiles (1999), we propose a conceptual and empirical dyadic roadmap to prepare the buyer/supplier negotiations. Our contribution should enrich the literature on negotiation and customer-supplier relationship management.

Keywords: Negotiation preparation; Buyer; Supplier
WP 20 - Sourcing Intermediaries: A Systematic Review and a Research Agenda
Yuan Virtanen
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Intermediaries play an increasingly visible role in global sourcing activities despite the longstanding debate on whether they add value. So far, research on this topic is still very limited. The concept of sourcing intermediary is inconsistent and the term intermediary is often used to describe intermediating organisations in both upstream and downstream supply chain without explicit distinction. The purpose of this paper is to conduct a comprehensive literature review on sourcing intermediaries, discuss issues such as sourcing intermediary definition, classification and activities, and strengths and weaknesses, identify gaps in the literature and propose future research agenda.

Keywords: Sourcing intermediary; Global sourcing; Literature review

WP 21 - Exploring the relationship between sustainability initiatives and supplier viability at the bottom of the pyramid
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Many concurrent procurement initiatives seek to make supply chains more environmentally sustainable. While a positive relationship between economic and environmental performance among large firms from developed countries is well documented, it remains unclear how sustainable initiatives affect lower-tier suppliers in developing, low-income countries. This research project seeks to fill this gap. Specifically, this research shows how sustainability initiatives affect the need of such suppliers to seek additional resources on microlending platforms and whether these initiatives undermine the viability of these suppliers.

Keywords: Sustainable procurement; Bottom-of-the-pyramid; Crowd funding

WP 22 - Developing Education Practices through Participatory Design
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Prominent scholars encourage academics to engage in research with real impact on management practices (Birkinshaw and al., 2014). As educators, we face a challenge due to the time lag between the emergence of contemporary management problems and the diffusion of relevant education content. Our paper suggests that Participatory Design reduces the time needed to develop education practices. We report on a Participatory Design process used to create a framework for developing an innovation culture in Purchasing. We analyse the outcomes and learnings from this exercise. We conclude by discussing when and how Participatory Design could contribute to Education and Research.

Keywords: PSM education; Innovation Culture; Participatory Design
**WP 27 - The process of value creation: connecting purchasing and supply management to strategy**

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2 EADA Business School, Spain

This study tackles the debate regarding how the purchasing function can help buying firms achieve competitive advantage. The main research question is: How does the purchasing function manage the supply base, and buyer-supplier relationships (BSRs) within the supply base, into a resource that generates competitive advantage? Extant purchasing literature is still dissonant in using terms such as resources, capabilities and practices. Thus, with this conceptual study we aim to bring clarity and provide a substantive theoretical framework that links strategy literature to the literature about BSRs and supply management capabilities.

Keywords: Resource-based view; Resource orchestration; Buyer-supplier relationships; Purchasing capabilities

**WP 28 - Supplier sourcing: An exploratory study of the vendor search process**

Sarrah Chraibi and Charles-Henri Fredouet

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Topping the strategic decision-making process, the environmental scanning phase has been widely studied in the academic literature. Conversely, the comparable initial step of supplier sourcing, dedicated to vendor search, has not been granted much attention by authors. The purpose of this paper is therefore, through an interview-/survey-based exploratory study, to analyze the ways firms search their environment for potential suppliers. While showing a relative homogeneity in the implementation characteristics of the vendor search activity, results however point out to some variations, partly correlated with the firms’ respective approaches of the sourcing process.

Keywords: Supplier selection; Vendor search; Sourcing

**WP 31 - Exploring disruptions in financial flows across supply chains: the supply chain financial bullwhip effect**

Georgios Vousinas and Stavros Ponis

National Technical University of Athens, Greece

The purpose of this paper is to explore disruptions in financial flows across supply chains, under crisis conditions, and build on the theoretical background to develop a conceptual framework, which justifies the existence of the Supply Chain Financial Bullwhip Effect (SCFBE). The paper reviews the current literature regarding financial flows, focusing on the financial disruptions along supply chains, in times of crisis, caused by the transmission channels of financial shocks at micro (firm) and macro (economy) level. The authors develop a conceptual framework to support the better understanding and standardization of the SCFBE and guide future relevant research efforts.

Keywords: Supply Chain Finance; Financial Disruptions; Supply Chain Financial Bullwhip Effect; Financial Crisis
WP 33 - Managing risks in the development and implementation of product innovations in construction projects: The case of a movable bio-based composite bridge deck
Bart Lenderink, Hans Boes, Ernst Kleinhuis, Hans Voordijk and Joop Halman
University of Twente, Netherlands

Effective risk management is essential for the development and implementation of product innovations in projects. Within construction there is a trend towards the use of integrated contracts to stimulate incremental innovation. However, for architectural/radical innovations that require more development and testing the allocation of innovation risks to the main contractor is undesirable, whereas he may not be willing or able to manage and/or bare these risks. Using an in-depth case study, this paper provides insights in how the management and allocation of high innovation risks can be directed through the design of the project and procurement strategy in construction projects.

Keywords: Risk management; Innovation; Public procurement; Civil engineering and construction

PP 34 - Conceptualization of a preventive and reactive supply chain risk management approach to manage supply shortages
Wolfgang Buchholz¹, Alina Albersmann², Antonia Kappel¹ and Jian Huang³
¹ University of applied sciences Münster, Germany
² Herbers Büro-Service GmbH & Co. KG, Germany
³ Hella GmbH, Germany

This paper focusses on optimizing preventive and reactive Supply chain risk management (SCRM) approaches based on a case study at an automotive parts supplier. The research intends to create a strategic and holistic SCRM framework to react faster and more efficiently to supply disruptions. The preventive approach (Supply chain risk strategy) is supposed to define strategies to avoid a risk’s occurrence and therefore minimize the efforts of the following reactive approach, the so-called Critical parts management (CPM). CPM reacts to all sorts of supply shortages caused by suppliers who are not able to deliver parts and components.

Keywords: Supply shortage; Supply chain risk management; Critical parts management

WP 35 - The role of purchasers in successful circular purchasing: A comparative case-study
Petra Neessen¹, Marjolein Caniels¹, G.C.J.M. Vos² and Jeroen De Jong¹
¹ Open University of the Netherlands
² Tilburg University, Netherlands

The transition towards circular economy, puts pressure on the purchasers to purchase in a circular manner. However there are many hurdles to overcome. The aim of this research is to investigate the role of the purchasers in the circular purchasing process and investigate the organisational factors that influence the purchaser. The results of this comparative case study show that purchasers that are motivated and have the ability to proactively convince project teams to purchase in a circular manner, increase circular purchasing within the organisation. Also organisational factors influencing the purchasers are identified.

Keywords: Circular purchasing; Purchasing function; Case study research
**WP 36 - Near- vs. back-shoring from China: a French perspective**

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2 University of L'Aquila, Italy

In the last decades, companies have been reviewing their manufacturing off-shoring decisions; in so doing they implemented “reshoring” decisions, including the relocation at the home country and the home region. While back-shoring has been gaining increasing attention among scholars, studies on near-shoring are still scarce. Moreover, the academic literature rarely compared the two phenomena. The proposed paper aims to contribute to the academic debate offering a comparative analysis of their characteristics. This aim is followed analyzing data belonging to French manufacturing companies implemented reshoring decisions from China. Collected evidence was analyzed against findings emerging by the extant literature.

Keywords: Reshoring; Back-shoring; Near-shoring

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**WP 37 - Developing Action Research methodology in light of digital transformation – a view from the inside of pharmaceutical supply chain traceability**

Marco Farinelli, Federico Caniato and Filomena Canterino

Politecnico di Milano, Italy

The purpose of the paper is to develop a new Action Research (AR) framework for supply chain development & change in a digital transformation context. A comparative analysis among AR frameworks in the literature is performed and the most suitable frame is used to perform AR in the context of the implementation of a new product traceability system in the EU pharmaceutical supply chain. We identify the key variables that need to be considered in each step of an AR cycle when performed during digital transformation. Our contribution is to extend the AR methodology to a new context, enabling the effective involvement of stakeholder associations in research.

Keywords: Insider Action Research; Digital; Supply Chain Management

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**WP 38 - Assessing Supplier Innovations: Which side of the scale weighs heavier - the quality or the innovation implementation ability of the supplier?**

Janina Goldberg and Holger Schiele

University of Twente, Netherlands

Since almost all innovations are provided by suppliers, it is surprising that only one qualitative study exists, which suggests an innovation-evaluation-tool including not only the innovation idea, but also the evaluation of the innovative supplier. The goal of this paper is to empirically validate this tool of Goldberg & Schiele (2018). The research questions are: 1. Which side of the scale influences the innovation project success more - the quality of the innovation idea or the project execution quality of the supplier? 2. Which sub-criterions have high correlation to innovation project success and (3.) which ones eventually have none?

Keywords: Supplier innovation assessment; Purchasing; Supplier performance measurement
**WP 39 - “Boosting” Supplier Innovations - Encouraging the implementation success of supplier innovations by introducing new promotor functions**
Janina Goldberg and Holger Schiele
*University of Twente, Netherlands*

In this paper, a benchmarking analysis is conducted to show best practices for the use of innovation promotor roles within the innovation execution and implementation of supplier innovations. The results show, that most case companies do not use explicit innovation promotors and do also not use special methods to handle supplier innovations. To discuss the found results further a World Café workshop was held, in which three new promotor roles were designed: 1. Customer promotor, 2. Vision promotor and 3. Diplomatic promotor. All three contribute to existing literature by providing new innovation execution and implementation support, tailored on supplier innovations.

Keywords: Innovation promotor; Supplier innovation; Innovation implementation

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**WP 40 - Serial manufacturing back-shoring: evidence from an Italian case study**
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2 University of Bologna, Italy
3 University of L’Aquila, Italy

Notwithstanding the increasing scholars’ attention to the back-shoring phenomenon, no previous researches investigated companies adopting “serial” reshoring strategies that is, implement several relocation decisions in a certain period. Consequently, the proposed paper adopts an explorative approach to fill this research gap. More specifically, a longitudinal case study is analysed concerning a leading Italian company operating in the aluminium window sector. The company has back-shored its manufacturing activities from three countries, where it had earlier (partially) off-shored these activities, in order to develop the local markets. The back-shoring decisions were always taken on the base of changes in the external environment.

Keywords: Reshoring; Back-shoring; Case study

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**WP 42 - Applying data analytics for purchasing and supply management**
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*Chalmers University of Technology, Sweden*

The study focuses on applying data analytics in the area of purchasing and supply management (PSM). First, a survey was conducted, after which a case study was carried out with selected companies among the survey respondents. The survey results show that most companies are investing resources into analytics and developing analytics capabilities. Over half of the companies believe that analytics will become an integral part of their PSM decision making, but current implementation phase varies between companies. In the case study, the explanations for the various approaches to data analytics in purchasing and supply management were sought.

Keywords: Purchasing and supply; Data analytics; Big data; Survey; Case study
**WP 44 - Frameworks for collaboration: Improving sustainable procurement in the construction industry**

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The fragmented nature of the construction industry has been seen as an area of concern for a long time. More recently there has been a growing imperative for the industry to reduce its environmental impact. This paper aims to show how building collaborative relationships during the design and procurement stages could help the industry reduce greenhouse gas emissions. A framework for collaboration is proposed, with the client acting as the centrepiece to facilitate change, moving away from the traditional linear procurement frameworks used by the industry, which do not encourage collaborative relationships to develop.

Keywords: Sustainable procurement; Collaboration; Construction industry

**WP 50 – The Role of Digital Supplier Integration - Status Quo in the Literature**

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Supplier integration is frequently discussed in purchasing and supply management literature, however it has not yet been answered which type of buyer-supplier relationship requires a certain type of integration. Digitalization might open the discussion to new or changed forms of supplier integration, as it is expected to improve management, transparency and monitoring at low process costs. While supplier integration is a relatively mature topic in purchasing and supply management, digitalization is rather new. The aim of this article is to identify if and how both topics are related by using a systematic literature review.

Keywords: Supplier integration; Digital; Digitalization; Literature review; Buyer-supplier dyad

**WP 51 - Obtaining the best supplier solutions: current behavior and future expectations**

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\(^2\)University of Twente, Netherlands

This study increases current knowledge on the antecedents of preferred customer status. It also investigates the link between preferred customer status and a supplier’s solution provision performance. Survey receiving 480 supplier responses is utilized and analyzed with partial least squares (PLS) technique. Supplier involvement in product development, customer’s dedicated investments in the relationship and supplier evaluation practices are found beneficial for obtaining preferred customer status. The findings also suggest that preferred customer status is important in gaining better solution provision practices from the supplier.

Keywords: Buyer behavior; Preferred customer status; Solution business
**WP 52 - How purchasing can contribute to innovation in Product-Service System offering?**
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\(^1\) Grenoble Technology Institute GSCOP Research Centre, France
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\(^3\) EIPM, France

In the last years, the servitization journey towards a Product Service System (PSS) offering has been growingly supported by digitalization. Adopting a PSS strategy that transform products into solutions requires the development of collaboration across an ecosystem of external partners. The study aimed at developing a more comprehensive understanding of how purchasing can assist PSS innovation. From preliminary data collected with Schneider Electric, our results reveal some correlations between the PSS offering strategy, the presence of downstream complementors and the capabilities and degree of structural differentiation in PSM organisation.

Keywords: Product Service System; Digital servitization; Purchasing involvement

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**WP 53 - Strategic fit in buyer-supplier relationships: A systematic literature review from a supply chain perspective**
Nico Steenstra, Cees Gelderman and Janjaap Semeijn
Open University of the Netherlands

This study examines literature with the aim to determine the various attributes, their definitions and causal relationships of strategic fit. In a Systematic Literature Review 195 articles have been selected all related to buyer-supplier relationships. After data collection various areas of research are distinguished including procurement, production, ICT, development, culture, attractiveness, innovation, sustainability and power dynamics. The outcomes of this research will shows a systematic overview of research, trends within the scientific field of strategic collaboration in buyer supplier relationships, it reveals existing gaps and provides directions for future research.

Keywords: Strategic fit; Strategic alignment; Strategic consistency; Buyer-supplier relationships; Performance indicators; Systematic literature review

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**WP 55 - Transactional and relational trust – a finite dynamized Trust Game**
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\(^2\) Budapest University of Technology and Economics, Hungary

Trust in supplier relationships has a critical role facilitating cooperation including joint innovation efforts. Consequently, it is one of the key triggering factors of competitiveness (Barney – Hansen, 1994). Therefore, the concept of trust has generated a huge body of literature, however there are still gaps in its understanding. One of the research gaps is the difference between transaction and relationship level trusts. We developed a special repeated Trust Game to get a deeper insight into the interplay between these trust types. We carries out our empirical analysis based on a database of 490 transaction.

Keywords: Trust; Dynamic Trust Game; Competition
WP 56 – Supplier selection model based on FAHP method: a case study in the food supply chain
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² Federal University of Technology of Parana (UTFPR), Department of Management and Economy, Brazil

This research proposes to apply a multicriteria decision model based on the FAHP (Fuzzy Analytical Hierarchy Process) method for the selection of suppliers in a food company. To do that, a case study was developed in a food company located in Brazil. According to the FAHP method, S3 is the best evaluated supplier. This practical application provides the company additional information and a systematic approach to supplier selection and evaluation. The model proposed can be adapted to different organizations and can help managers better understand their suppliers’ capabilities and performance by enabling them to identify and reduce purchase risk.

Keywords: Multicriteria decision-making method; Food company; Supplier’s management

WP 57 - News reporting on public procurement
Anthony Flynn and Irina Harris
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This paper gives an overview of ongoing research by the authors into the representation of public procurement in news reporting. The objective of the research is to examine how public procurement has been reported on over an extended period of time and why certain representations or frames have emerged. The context for the study is UK newspaper reporting between 1997 and 2017. The media is an important institutional actor in the public procurement field. However, scholars have yet to consider how the media interprets and reports on public procurement. Our study is an attempt to address this gap in knowledge.

Keywords: Public procurement; News reporting; Content analysis

WP 60 - Order from chaos: a meta-analytic approach to supply chain complexity
Melek Akin Ates, Robert Suurmond and Davide Luzzini

Several firms operate under increasing supply chain complexity (SCC); however, the accumulating evidence is ambiguous regarding the performance effects. In this study, we adopt a meta-analytical approach examining 23,706 observations across 71 independent samples from 89 empirical studies. While SCC has no general relationship with performance, a finer-grained analysis of the relationships between sub-components of both SCC and performance provides meaningful insights. Accordingly, we demonstrate the negative effect of upstream detail complexity on operational performance and the positive effect of internal complexity on financial performance, while downstream complexity is not related to overall performance.

Keywords: Complexity; Performance; Meta-analysis
**WP 64 - Collaborative culture and its impact on supply chain collaboration: an empirical study of Ghana’s downstream petroleum sector**
Innocent Senyo Kwasi Acquah, Micheline Juliana Naude and Sanjay Soni
University of KwaZulu-Natal, South Africa

This study explores the effect of collaborative culture on supply chain collaboration in Ghana’s downstream petroleum sector. Collaborative culture is operationalised using collectivism, long-term orientation, power symmetry and uncertainty avoidance. This is a quantitative study and data was collected through administering a questionnaire to all firms in Ghana’s downstream petroleum sector. The findings from the study reveal that apart from collectivism, which had a positive but not significant effect on supply chain collaboration, long-term-orientation, power symmetry and uncertainty avoidance had a positive and significant effect on supply chain collaboration. This addresses a gap that exists in literature.

Keywords: Collaborative culture; Supply chain collaboration; Downstream petroleum sector

**WP 65 - Total Landed Cost, a quantitative survey: a desirable but still underutilized approach**
Reinhard Baller and Spinler Stefan
Kühne Institute for Logistics Management, Supply Chain Management Group, WHU Otto Beisheim School of Management, Germany

A quantitative survey based on 32 interviews with industry experts indicates that a standardized Total Landed Cost (TLC) approach is not routinely adopted, despite a very broad range of potential applications. This paper analyses the current state of TLC implementation including barriers, relevance and success factors differentiated between the different usage areas. Our findings confirm the success factor groups suggested by the existing literature. We identify and validate detailed success factors for each group as well as barriers to implementation. Our survey suggests that barriers and success factors differ depending on the usage area.

Keywords: Total Landed Cost; Total Cost of Ownership; Supplier selection; Global sourcing

**WP 66 - An investigation of supply chain sensing mechanism: A dynamic capabilities perspective**
Oluseye Odukoya, Richard Oloruntoba and Steve Melnyk
University of Newcastle, Australia

Prior research has underscored the importance of the supply chain in fostering organizational competitiveness but the role of the supply chain in the development of dynamic capabilities has been largely under explored. Using a theory-building approach based on multiple-case study of eight Australian manufacturing firms, this study explores the concept of supply chain sensing through the lens of the dynamic capabilities framework. The study presents a refined model depicting the underlying mechanisms and processes through which the firm can leverage its supply chain for identifying opportunities, threats and developments in the business environment.

Keywords: Supply chain sensing capability; Dynamic capabilities; Case studies
WP 67 - The role of moral disengagement in supply chain fraud
Scott Duhadway¹, Steven Carnovale¹ and Lutz Kaufmann²
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2 Otto Beisheim School of Management, Germany

This manuscript looks at the issue of transitive fraud, or fraudulent behavior which spreads in the supply chain from a supplier through a decision-making firm to impact a customer. The research uses a cassette based experimental design to explore the factors which leads to a decision maker being willing to pass on the risk of fraudulent products in the form of adulterated olive oil to customers.

Keywords: Supply chain; Transitive fraud; Moral disengagement; Experimental study; Risk

WP 70 - Antecedents of supplier satisfaction: the moderating influence of national culture
Bita Mirzaei and Holger Schiele
University of Twente, Netherlands

The resource dependency theory and Hofstede's multi-cultural research are used to emphasize more on the supplier satisfaction. Moreover, this paper also formulates further testable propositions. Cultural aspects are used to explain the resource dependency by linking the antecedents of the supplier satisfaction. The geographical location has an impact on the partner selection since companies that are in the same regional cluster have a rather common goodwill than companies that are outside the cluster. Future research would benefit from empirically testing these hypotheses by doing a multi-comparison research where the supplier satisfaction of different countries is analysed.

Keywords: National culture; Supplier satisfaction; Preferred customer

WP 71 - Assimilation of e-procurement systems in firms: An empirical investigation
Stephan M. Wagner, M. Ramkumar and Seongtae Kim
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Although e-procurement systems are known to enhance competitive advantage, firms still face challenges in assimilating these systems. This study tackles this problem by developing a conceptual model that investigates the aggregate assimilation of e-procurement systems. Specifically, the model explains the mediating role of top management participation and absorptive capacity in the relationship between institutional pressures and e-procurement assimilation. The hypotheses were tested using survey data collected from 132 Indian buyer firms. We found that institutional pressures affect the assimilation of e-procurement systems via the organizational characteristics. The results from the post-hoc analysis also validate our findings.

Keywords: E-procurement; Technology assimilation; Survey research
WP 72 - Providing and procuring IoT services – Case studies towards data services
Matti Rissanen, Lasse Metso, Timo Kärri and Tiina Sinkkonen
LUT University, Finland

This working paper presents two cases that aim to produce business models for specialized IoT service providers. Specialized meaning that the providers do not produce a physical product or service such as maintenance but rather can support both of these processes – as well as other processes such as design and resales. At this stage one case is at data analysis – stage and the other at data gathering. The key recognized at this point is real time monitoring and analytics. The main contribution of this paper is two comparable specialized IoT service concepts.

Keywords: Specialized IoT services; Real time analytics; Maintenance services

WP 73 - Green dialogue-based public procurement - An approach to reduce emissions at construction sites
Hasan Hamdan, Maren Østensen and Luitzen De Boer
Norwegian University of Science and Technology, Norway

This paper aims to understand the potential of dialogue-based public procurement to reduce emissions at construction sites. We investigated the public procurement process in three building projects in Norway, where we drew special attention to the pre-bidding and bidding stages. Our results show that early dialogue with suppliers played a central role in uncovering available solutions that the public buyers were unaware of. They improved the buyers’ knowledge about the supply market and enabled them to transform their initial low-carbon needs into realistic, workable demands. Moreover, market dialogue can be a way to trigger innovation and inter-organizational collaboration.

Keywords: Public procurement; Dialogue; Emission

WP 74 - Beyond the commercial dyad: Exploring value buying in different sectors
Joona Keränen, Bruce Pinnington and Jo Meehan
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2 University of Liverpool, United Kingdom

Buying value is becoming increasingly important purchasing strategy in B2B markets, but current literature offers little insights on how it unfolds in different sectors. The purpose of this study is to unpack how value-buying approaches diverge in private, public, and third sectors, and describe the key dimensions that underlie major differences. Drawing from a qualitative multiple case studies that involve 15 buying organizations in three different sectors, this study develops findings that contribute to current priority areas in contemporary industrial marketing and purchasing research. For managers, this study offers insights on how to conduct value buying in different sectors.

Keywords: Value Buying; Social Value; Public Procurement
**WP 75 - Social capital and collaborative ties in providing new digital service solutions**
Jussi Heikkilä¹, Pasi Rintamaa² and Aki Jääskeläinen¹
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2 Posti, Finland

The purpose of this study is to understand the co-creation of new types of digital services in buyer-supplier relationships and to gain increased understanding about the social capital in this context. The context is further limited to provision of specific solutions, i.e. Artificial Intelligence and Intelligence Process Automation. The social capital theory forms the theoretical frame to this research. Another perspective of the empirical analysis originates from the literature of solution business. This research builds on an earlier research utilizing large-scale survey data and compares the findings to those from explorative studies in the broader contexts of knowledge-intensive business services.

Keywords: Social capital; Buyer-supplier relationships; Digital business services

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**WP 76 - Application fields for artificial intelligence in procurement: A structured literature review**
Dennis Meyer, Laura Berger and Michael Henke
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The aim of this structured literature review is to examine the use of artificial intelligence (AI) methods in procurement. The use of AI does and will further change industrial procurement processes (Kleeman and Glas, 2017). Fields of application are for example bots, natural language processing, monitoring of supplier contracts and improvement in decision-making (Buxmann and Schmidt, 2019; Mohanty and Vyas, 2018). The potential of the use of AI methods in procurement can be derived from the digitization of manufacturing systems within the framework of Industry 4.0 as well as from the amount of data generated in procurement processes.

Keywords: Artificial intelligence; Machine learning; Digitalization in procurement

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**WP 78 - Supply Chain Resilience in Co-operative Business Model**
Sirpa Multaharju¹, Zhaohui Wu², Katrina Lintukangas¹ and Anni-Kaisa Kähkönen¹
1 LUT University, Finland
2 Oregon State University, United States

This study examines the governance and decision-making in co-operative business model and supply chain resilience from the social sustainability viewpoint. It is assumed that the supply chains in co-operative business model are highly resilient because their members are both, owners and users of the organization. By utilizing publicly available data sources from Finland and USA, this paper describes the producer pricing and related actions regarding resilience in co-operative supply chains. The results indicate that even though there are differences regarding the producer pricing in challenging conditions, both co-operatives have structures and principles that seem to support supply chain resilience.

Keywords: Resilience; Supply Chain; Co-Operative
WP 79 - Supplier selection criteria of different sourcing categories
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\textsuperscript{1} Lund University, Sweden
\textsuperscript{2} Scania, Sweden

The aim of this paper is to provide an increased understanding on supplier selection criteria in different sourcing categories. Different supplier selection criteria are investigated through a multiple case study of different sourcing categories within an automotive company. The study revealed underlying factors for each of the supplier selection criteria discussed in this paper. There were similarities as well as differences in criteria between different categories. Some criteria were more important for certain categories. Quality, delivery, cost and corporate social responsibility were in general the criteria that were most important to assess across categories.

Keywords: Supplier selection; Criteria; Sourcing category

WP 80 – Towards a taxonomy of public service triads to investigate buyer’s service delivery control
Berna Topak, Nigel D. Caldwell and Umit S. Bititci
Heriot-Watt University, United Kingdom

Along with the economic and operational advantages of contracting services, comes the risk of meeting the service delivery requirements due to several different forms of principal-agent relationships exist in the public service triads (Broekhuis and Scholten, 2018). Therefore, the purpose of this paper is to investigate the buyer’s control mechanisms for contracted service delivery through examination of invitation to tenders (ITTs) impacts on supplier choices and their link between post-contract management phases, addressing the issue of buyer’s separation from the service delivery in public sector context.

Keywords: Public service triad; Public contracting; Invitation to tender

WP 81 – MAPPING DEVELOPMENT PATHS IN PROCUREMENT DIGITALIZATION: Results from a survey of Finnish manufacturing firms
Harri Lorentz and Sini Laari
University of Turku, Finland

The aim of this paper is to map development paths of procurement digitalization in manufacturing firms. A recently introduced framework for mapping procurement digitalization is adopted and operationalised for a web-based survey questionnaire, which allows to observe current state of digitalization, as well as the short-term and long-term plans of the responding firms. The analysis will allow the identification of technology priorities and value driver foci, and also allows the consideration of a stylised and general development paths regarding procurement digitalization in manufacturing firms.

Keywords: Procurement; Digitalization; Survey
WP 82 - A cognitive frames perspective on supplier involvement in product development: a case study
Kari Tanskanen¹, Matti Pihlajamaa² and Mervi Vuori¹
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2 VTT, Finland

In inter-organizational product development (PD) collaboration, people interpret and frame the project differently which may affect its success. To understand PD collaboration from all involved parties’ perspectives, we take the cognitive frames approach and report interim findings of a qualitative in-depth case study of a PD project involving a buyer and two small suppliers. The mental models of the parties are found to relate to product development but additionally to buyer-supplier relationship development, supply chain operations development, learning and the internal development of the buyer. The general experience of PD collaboration is also found a key domain of the frames.

Keywords: Early supplier involvement; Buyer-supplier relationships; Cognitive frames

WP 89 - Managerial cognition and inter-organizational learning: a dynamic managerial capability view
Anne Söderman, Anni Rajala and Anne-Maria Holma
University of Vaasa, Finland

In this exploratory study, the focus is on inter-organizational learning (IOL) in supply chain context. The purpose is to explore the connection of managerial cognition and IOL, thus answering the call for research on dynamic capabilities on the individual managerial level. We examine how IOL emerges in managers’ cognitions, which form a basis for managers’ decisions about company’s resources, processes, and success. The theoretical background of the study lies on dynamic (managerial) capabilities and on different views of IOL. The findings demonstrate that managers recognize IOL as an important success factor for the supply chain relationships and for the company.

Keywords: Dynamic managerial capability; Inter-organizational learning; Cognition

WP 91 - Improving supply chain risk management: Implications for process transformation and global procurement markets via the internet of things
Hendrik Birkel and Evi Hartmann
Friedrich-Alexander University Erlangen-Nuremberg, Germany

The severity of potential risks of today’s global networks emphasizes the need for supply chain risk management (SCRM), to design economically competitive supply chains and provide competitive advantage. The internet of things (IoT) offers the opportunity for a radical change through increasing transparency due to the interconnection of partners, goods and processes. We contribute to this field by conducting a multiple case study, examining how IoT influences SCRM. Our results show IoT positively influences the risk identification, assessment, treatment and monitoring, and improves the external pathway of SCRM. However, the application focuses on few use cases, which entail several barriers.

Keywords: Supply chain risk management; IoT; Supply chain transparency
WP 92 - Supply Chain Management in the Videogames Industry: a systematic literature review evaluating the maturity of the field
Stephen Kelly¹, Vojtech Klezl², John Israilidis³, Neil Malone⁴ and Stuart Butler⁵
1 Edge Hill University, United Kingdom
2 Technical University Ostrava, Czechia
3 Nottingham Trent University, United Kingdom
4 Salford University, United Kingdom
5 Staffordshire University, United Kingdom

The Video Games Industry (VGI) continues to grow dramatically and, as industries mature, they rely more heavily on Supply Chain Management (SCM) to ensure effective operations leading to greater levels of performance. SCM has been widely covered in many industrial areas and there is now a heightened need to establish a structured approach to VGISCM research. This work contributes to the development of VGISCM research by mapping, consolidating and evaluating the extant literature in order to evaluate the maturity of the field and therefore identify gaps and opportunities for future investigation.

Keywords: Video Games; Supply Chain Management; Field Maturity

WP 94 - Proliferating innovative public procurement: A study of purposefully creating isomorphic pressures at the national level
Maren Viktorin Østensen, Elsebeth Holmen and Luitzen de Boer
NTNU - Department of industrial economics and technology management, Finland

Innovative public procurement (IPP) has been suggested as one important new procurement practice that enables the public sector to address the grand challenges society faces. This paper aims to understand the drivers of IPP practices by relying on institutional isomorphism. We use a single case study of an IPP promoting programme and pay attention to how they create isomorphic pressures that enable public organizations to adopt IPP practices. Our findings show that the programme creates mimetic and normative pressures for public organizations to adopt IPP practices, while coercive pressures are less profound.

Keywords: Public procurement; Institutional theory; Innovation

WP 95 - Making the most of game theory-based negotiations: Comparing individualized and standardized negotiation designs
Ines Schulze-Horn, Rabea Löcker and Holger Schiele
University of Twente, Netherlands

Mechanism design theory, a branch of game theory, concerns the design of economic mechanisms to achieve desired objectives. In the field of purchasing and supply management, mechanism design theory proposes that purchasers can act like engineers by designing negotiation rules that incentivize suppliers to offer or accept purchasing prices close or equal to their reservation prices. Based on a scenario-based experimental approach, this study shows that negotiation rules which are adapted to the individual negotiation context lead to higher price reductions than standardized negotiation designs. Additionally, multiple-phase negotiation designs result in lower purchasing prices than first-price sealed-bid auctions.

Keywords: Mechanism design theory; Negotiation; Purchasing
WP 97 - Market knowledge’s impact on global trade channel design and logistics outsourcing: European companies targeting the Chinese food and beverage market
Lorenzo Bruno Prataviera, Sara Perotti and Marco Melacini
Politecnico di Milano, Italy

The present study aims at investigating the influence of market knowledge on designing global trade channels as well as setting the relationships with LSPs, from the perspective of European companies targeting the Chinese food and beverage market. Case study analysis offered different contributions. On one side, in line with the extant literature it was confirmed that increasing market knowledge allows for a higher commitment to the market. On the other side it emerged that, as market knowledge increases, companies tend to internalise logistics decisions - initially fully outsourced to a single LSP - by directly choosing specialised players.

Keywords: Market knowledge; Trade channel design; Logistics outsourcing; Logistics Service; Providers; Chinese Food and beverage market

WP 98 - Prosumers: Coworkers, cocreators or competitors?
Johan Kask¹ and Vojtěch Klézl²
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Through a systematic literature review of 68 peer-reviewed journal articles published in 1986-2018, this paper identifies the main gaps in the contemporary prosumer innovation literature and drafts a typology that covers three prototypical forms of prosumption. The purpose is to theorize and detail the existing understanding of the prosumers role and function in value chain settings, and the contribution in relation to the existing literature helps structure and detail the debate on prosumerism and prosumption forms in value chains.

Keywords: Prosumption; Value chain; Business model innovation; Literature review

WP 99 - Contracting for innovation in public services: Capabilities, institutions and intermediation
Kostas Selviaridis and Martin Spring
Lancaster University, United Kingdom

This paper investigates how innovation intermediaries support UK public buying organisations and suppliers to contract for innovation. We find that intermediaries fill gaps in indirect capabilities related to innovation procurement and adoption by contributing expert knowledge, brokering connections and facilitating cooperation. Intermediaries also leverage their institutional capabilities and engage in institutional work to help shape an institutional environment that fosters public sector innovation. However, there is no conclusive evidence as to whether the deployment of intermediaries’ institutional capabilities makes a difference in terms of the scale and rate of innovation procurement and adoption.

Keywords: Contracting for innovation; Indirect capabilities; Institutional capabilities; Innovation intermediaries
WP 100 - The influence of ICT on supply chain sustainability practices: an exploratory research
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2 Lappeenranta University of Technology, School of Business and Management, Finland

Sustainability is one of major topics in supply chain management (SCM) and Information and communication technology (ICT) has the potential to address the three dimensions of sustainability (social, economic, and environmental). As a result, many companies have embraced sustainability by integrating ICT in their business. Limited research has been conducted on the role of ICT in supporting sustainability initiatives in purchasing and supply management with little empirical investigations. The aim of this exploratory research is to contribute to fill this gap. The paper investigates how ICT influences sustainability practices in purchasing and supply management and its effect on performance.

Keywords: Purchasing and supply management; ICT; Sustainability practices; Questionnaire survey; Finland

WP 101 - Principles of successful design and management of fixed price and unit rate contracts
Anna Nikulina, Finn Wynstra and Suzanne Bikes
Rotterdam School of Management, Netherlands

Recent contracting literature has largely focused on performance-based contracts (PBC) that can align parties’ interests and solve the agency problem. Multiple studies have addressed PBC design, some – their management, and have identified combination of controls that should be applied in these agreements. ‘Traditional’ contracts, although widely applied in practice, have received little attention from researchers. We address this gap by studying which buyer actions and controls make fixed price and unit rate contracts’ for maintenance services financially successful. We find that a mix of behavior and outcome controls, and especially client self-control is important for success of these contracts.

Keywords: Fixed price contract; Unit rate contract; Maintenance services

WP 102 - Customer attractiveness in the public sector
David Fridner and Fredrik Nordin
Stockholm University, Sweden

The study explores how public organizations become attractive customers. By using qualitative data, we develop a framework to unlock customer attractiveness in the public sector. The findings indicate the need to work actively with three key mechanisms: fairness, competence and adaptability. In order to do so, public customers are advised to engage in extensive social interactions with the suppliers by shifting from the procurement phase to a less legally restricted playing field.

Keywords: Customer attractiveness; Public sector; Supplier relationship management
WP 103 - Uncovering different sustainability narratives from the stakeholder discourse of the United Kingdom dairy supply chain
Tim Else, Sonal Choudhary and Andrea Genovese
Sheffield University Management School, United Kingdom

Given the multitude of sustainability challenges faced by the UK dairy supply chain, this paper aims to identify the dominant and alternative narratives generated by different stakeholders across the industry, as well as what techniques sustain these narratives. A triple bottom line approach to sustainability is taken, and cultural hegemony will be utilised in identification of the narratives. A qualitative approach to the research is taken through performing critical discourse analysis on grey literature generated in the dairy industry. Initial findings show some preliminary evidence about the existence of general and bespoke approaches, with the voice of farmers being silenced.

Keywords: Sustainability; Supply Chain; Critical Discourse Analysis

WP 104 - Art and Science of Procurement Education: Using Ancient Greek Philosophy to Drive Future Procurement Skills
Klaas Stek1 and Andreas Wieland2
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2 Copenhagen Business School, Department of Operations Management, Denmark

This era of information technology shows that character traits, virtues or intrapersonal skills form the distinction between humans and machines. In the ancient Greek philosophy hides a possible solutions for the future challenges that procurement is facing. Nowadays, higher education mostly focuses on knowledge and skills, whereas the ancient Greek educators also trained virtues. For this research an experiment was performed in a Master’s course in which also inter- and intrapersonal skills were trained. Students were surveyed on thirty soft skills before and after the course. Within a short period skills levels of seventeen inter- and intrapersonal skills increased significantly.

Keywords: Intrapersonal traits; Future education; Greek philosophy

WP 105 - Cleantech: state of art and implications for public procurement research
Robert Davtyan and Wojciech Piotrowicz
Hanken School of Economics, Finland

This paper explores opportunities of broadening research agenda of sustainability in public procurement by contextualizing it to cleantech sector. The objectives include examination of cleantech as a distinct sector by systematic literature review and consequent synthesis of the findings with the main avenues of public procurement research. The results suggest that cleantech is conducive to the delivery of vague sustainability goals to measurable metrics and can be helpful in enhancing research on public procurement of innovations, addressing societal benefits through local development and investigating better access of small and medium-sized enterprises to public contracts through intermediaries, networks and public-private partnerships.

Keywords: Cleantech; Innovations; Public Procurement; Sustainability
**WP 111 - Dynamic Capabilities: A Framework of Key Constructs - A procurement shared services case study within the Irish Public Sector**
Margaret Farrell

Dynamic capabilities (DCs) are a firm's processes that use resources to match market change (Eisenhardt & Martin, 2000). This study empirically investigates DCs and its micro-foundation mechanisms when developing and implementing procurement shared services in the Irish Public Sector following the recession of 2008. A framework of key constructs is developed, reflecting how behavioural attributes, communication and leadership inhibit or enable DC development. This paper advances DC theory, contributes to procurement, strategy and public sector literature, and fills the identified gap in longitudinal (Donada et al., 2016) empirical qualitative research on smaller samples (Ambrosini & Bowman, 2009).

Keywords: Dynamic capabilities; Micro-foundation; Procurement shared services; Public sector

**PP 112 - A framework to define engagement strategies with SMEs: the case of an open Innovation initiative in a large Aerospace & Defense player**
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2 Supply-Chain practitioner in the A&D sector
3 HEC, Polytechnique Paris, France
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B2B Open Innovation recently received an increasing interest. However, very few studies explore how it is managed, in practice, and specifically within large companies. The players of the A&D industry have interesting issues regarding Supply-Chain and Procurement management that are even more amplified in an Open Innovation context. Therefore, we are addressing the following question: how can A&D companies define engagement strategies with key innovative SMEs? This paper investigates a new framework to structure Open Innovation projects, which takes into account the specificity of the A&D sector.

Keywords: Open Innovation; Supplier Relationship; Defense industry

**WP 113 - Social value in public procurement: A multi-level governance perspective**
Jacqueline Davies and Jo Meehan
*University of Liverpool, United Kingdom*

This working paper evaluates how social value is considered in public procurement. The appropriateness of adopting multi-level governance (MLG) as a theoretical lens is explored to assess its potential to bring new insights into social value through an extension of the conceptual boundaries for consideration. Reporting on an initial exploratory phase of data collection, MLG is applied to a major commission by Knowsley Council (a regional UK council) to build a ‘Shakespeare North Playhouse and Rail Interchange’, which has an initial procurement aim of embedding social value to an economically deprived locality.

Keywords: Social value; Public procurement; Multi-level governance
WP 114 - The Role of Data Management and Integration on Value Creation of Supply Chain Systems

Mika Immonen, Jukka Hallikas and Elina Karttunen
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This study investigates the relationship with different supply chain information systems on the performance and value creation. Based on the developed survey instrument, we have collected the responses from 101 supply chain managers. Based on the findings of the study, the results show interesting results connected to the mediating role of product data management and integration between operative information systems and supply chain and innovation performance. Furthermore, the study highlights the importance of product architecture and product data management on performance.

Keywords: Purchasing and supply chain management; Information systems; SCM performance

WP 117 - Procurement of green logistics – The role of environmental sustainability in the procurement of logistics services

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2 Aalto University, Finland

Logistics service providers (LSPs) play central role in making freight transport greener. Although the awareness of sustainability issues has grown during the recent years, a true shift to greener freight transportation is yet to come. What is hindering the shift? Our paper looks closer via case study analyzes and in depth interviews at the inconsistencies of buyer-LSP relationships that neglect the adoption of environmentally sustainable business practices and offers some solutions for the paradoxes. This paper contributes to the recent literature on green logistics services as well as to the transport bidding and transport contract literature.

Keywords: Environmental performance; Green procurement; Logistics; Green logistics

WP 118 - A structural typology of supply chain fraud

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This manuscript explores how different network structures impact supply chain fraud. We theorize that the structural characteristics of a supply chain can serve as both enablers and propagators of fraud. Conversely, these structural factors, if deployed correctly, can also serve to prevent or at least constrain fraudulent behavior. This constitutes a significant practical contribution as our typology can help supply chain professionals understand how their decisions could minimize their exposure to fraud by, for instance, improving transparency or by deploying relationship-based solutions that can curb the desires and the opportunities of other members of the supply chain to conduct fraud.

Keywords: Supply Chain; Fraud; Risk; Triads; Structural Holes
**WP 119 - How can purchasing foster supplier-driven innovation? - Conceptual findings based on case study data**

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2 Schaeffler Group, Germany

This paper presents preliminary research results related to the question which capabilities purchasing currently uses to foster supplier-driven innovation and which ones it aims to develop. In doing so, we analyse literature on early supplier involvement in the NPD and on dynamic capabilities. Based on the literature review, we approached the questions by taking a Grounded Theory approach. Five clusters of dynamic capabilities could be identified whose characteristics vary according to the type of innovation. Whereas purchasing has already developed these capabilities for incremental and for progressive innovation, their development for radical supplier-driven innovation is still in an infant stage.

Keywords: Supplier driven innovation; Dynamic capabilities; Innovation

**WP 120 - Toward a Theory of Supply Chain Culture**

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3 German Graduate School of Management and Law, Germany

Building on the institutional literature, this conceptual paper argues that a supply chain can have a unique culture that fosters consistent practice adoption among its members. We define supply chain culture as the shared values, beliefs, and logics that underlie the business model of the buying firm, and identify examples of supply chain cultures (e.g. TQM or sustainability-oriented ones). We distinguish the attributes and dimensions of a supply chain culture and explicate the diffusion process involving a shift to new logics. Finally, we provide propositions on the institutional change process of culture adoption and propose further research opportunities.

Keywords: Supply chain management; Culture; Sustainability

**WP 122 - Economic and social upgrading in GVCs: The case of a nonwoven textile industrial cluster in China**

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We carried out an in-depth multiple case study of the nonwoven textile industrial cluster in Xiantao, China. By applying the lenses of global value chain (GVC) analysis and industrial cluster from a multi-stakeholder perspective, we identified the economic and social upgrading trajectories of the stakeholders within an industrial cluster in GVCs. GVC analysis and industrial cluster provide the angles of both horizontal and vertical perspectives: horizontally we identify the local institutional factors that influence various stakeholders in the industrial cluster, and vertically we focus on the lead firms in the supply chain networks in order to explore the research questions.

Keywords: Global value chain; Industrial cluster; Economic and social upgrading
**WP 123 - The Effect of Experience on Supply Chain Disruptions and Recovery Time**
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2 Logistikum Steyr, Austria

Prior research on supply chain disruptions focused mainly on organizational antecedents of disruptions and capabilities needed for firm resilience, and put less focus on personal factors of the involved managers. These personal factors can be crucial components in avoiding supply chain disruptions and building resilient supply chains. This study seeks to address this issue with a special focus on personal work experience of supply chain executives. We develop and test hypotheses that predict the impact of executive and employee experience on the number of supply chain disruptions a firm suffers and the recovery time needed to return to normal operations.

Keywords: Supply chain resilience; Personal experience; Disruption management

**WP 125 - Data-Driven Innovation at Critical Infrastructures: Leveraging Data to Enhance Infrastructure Availability**
Tom Aben, Wendy van der Valk and Henk Akkermans
Tilburg University, Netherlands

We seek to understand why data generated by disruptive technologies such as smart sensors are not being leveraged for enhanced maintenance. Our research is framed as a contracting problem, in the context of critical infrastructures (e.g., roads, bridges, etc.), for which maintenance is outsourced to specialist contractors. Preliminary analyses produced three main findings: 1) rigid contracts inhibit the adoption of disruptive technologies and making adjustments to specifications regarding data-sharing; 2) lack of alignment between contractual provisions and the overall objectives of the contracting party; and 3) ineffective incentive schemes which reward the wrong behaviours or are very disproportional in size.

Keywords: Data-driven innovation; Critical infrastructures; Availability

**WP 126 - Competency-destroying Technological Change and its Effect on Incumbent Suppliers and Buyer-Supplier Relationships**
Maximilian Schreiber and Christoph Bode
University of Mannheim, Germany

This study focuses on competency-destroying technological discontinuity and analyzes the incumbent’s behavior from a buyer-supplier perspective. It addresses two research questions: (1) How do the incumbent suppliers respond to the competency-destroying technological change they are facing? (2) What are the implications of this response on the existing buyer-supplier-relationships and, more specifically, for the buyer? An exploratory qualitative methodology is used to to compare the behavior of suppliers of an incumbent technology towards competency-destroying technological change.

Keywords: Technological change; Buyer-supplier relationships; Automotive; Qualitative data
WP 128 - The roles of purchasing and marketing in collaborative product development when involving suppliers and customers
Mohammad H. Eslami1 and Lisa Melander2
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2 Chalmers University of Technology, Sweden

The paper aims to investigate the role of purchasing and marketing in collaborative product development when they involve suppliers and customers. Six collaborative development product development projects at different large high-tech firms are studied. The results show that purchasing and marketing differ in regard to their contributions and roles of managing partner relationships. Purchasing appears to collaborate more with R&D and have well-established routines, processes and strategies for handling both technical and relational issues with suppliers. Marketing, on the other hand collaborate less with R&D and have fewer routines, processes and strategies for managing customers involved in product development.

Keywords: Purchasing; Marketing; Collaborative product development

WP 133 - The impact of Supply Chain Complexity on Organization of the Supply Chain Department: an exploratory study
Antonella Moretto and Filomena Canterino
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Supply chain complexity increased significantly in the last decade. In order to address this complexity, organizations in general and supply chain department in particular need to be structured coherently. However, contributions studying the organization of the supply chain function are limited. The present study aims at investigating the organization of the supply chain department and its relationship with the supply chain complexity, through 10 exploratory case studies involving Italian companies of different industries. Findings illustrate five main supply chain department archetypes - pure functional, integrated functional, integrated formalized divisional, integrated flexible divisional, matrix - offering insights for theory and practice.

Keywords: Purchasing organization; Skills and competences; Supply chain complexity

WP 134 - Supply Chain Finance and Public Healthcare Procurement: the Equipment Finance opportunities
Antonella Moretto1, Federico Caniato1, Andrea Patrucco2 and Stefano Ronchi1
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2 The Pennsylvania State University, United States

Supply Chain Finance has emerged as a key topic for both literature and managers, but mainly with a focus on working capital management, neglecting the perspective of fixed assets, and on private companies, neglecting public domain. This paper aims at investigating a specific solutions - Equipment Finance - focused on fixed asset, adopted specifically in public contexts. Through the analysis of 133 tender notices in the Italian healthcare section and 8 case studies with both vendors and customers, the paper identifies 4 different archetypes of Equipment Finance, characterized in terms of drivers and benefits for both customer and vendor.

Keywords: Supply Chain Finance; Public Procurement; Fixed Assets
PP 135 - Digitization 4.0: Computer Aided Procurement for practitioners is just beginning
Jean Potage
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Companies must face the disruptive phenomenon of digitization brought by a mix of technologies which are changing the game: Big Data, Product Data Management (PDM), Product Life Management (PLM), IoT, but also, Cloud Computing and M2M. If consequences on the business itself may produce disruptions in some sectors, Procurement is also concerned by its digitization. In order to identify the impact of digital technologies on Procurement function, this paper proposes a grid for analysis, establishes the link between digitization and effectiveness / efficiency (maturity) and suggests four priorities for Purchasing managers and practitioners facing the digitization of their job.

Keywords: Procurement and Purchasing Digitization; Purchasing Effectiveness; Purchasing Efficiency

WP 136 - Observing working capital models: industry comparison
Lotta Lind¹ and Sari Monto²
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2 Stora Enso, Finland

In this paper working capital models of different industries are studied. We test a generic framework for working capital models introduced by Lind et al. (2018) with the approach by Farris and Hutchison (2003), who analyzed working capital management in years 1986–2001 with their three-dimensional cash-to-cash map. Our paper provides a view to cash-to-cash development in years 2002-2017. We observe how both frameworks fit to the analysis of working capital management. Following RQs are set: How different industries position against each other in terms of working capital models? How working capital performance has changed during the observation period?

Keywords: Supply chain finance; Working capital management; Financial supply chain management

WP 137 - Industrial restructuring: The evolving geography and drivers of offshoring
Matteo Podrecca¹, Guido Orzes², Marco Sartor¹ and Guido Nassimbeni¹
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2 Free University of Bozen-Bolzano, Italy

Offshoring emerged as a major business practice since the 90s. Recently the phenomenon seems to be affected by the decrease in cost advantages of developing economies, the consequences of the 2008/09 economic crisis and the advent of new technologies (Industry 4.0). This paper investigates how offshoring geographies and drivers have changed over the last fifteen years. Based on a longitudinal analysis, we identified three different phases. Specifically, while the number of offshoring cases progressively decreases, we observed that location decisions are less driven by cost-related motivations and more by technological and market-related drivers.

Keywords: Offshoring; Reconfiguration; Drivers
**WP 139 - Blockchain impact in supply chains: A transaction costs perspective**
Leonardo Marques  
*Coppead Graduate School of Business, Brazil*

This study investigates the impact of blockchain technology to transaction costs. Because blockchain is a decentralized ledger where one cannot change information after inserted, it can overcome trust issues, reducing risk of opportunistic behavior, and therefore having a huge impact on transaction costs. The main contribution is to bring the discussion to a more granular level. By disaggregating different constructs and analyzing their relationships we offer a road map for firms aiming to explore blockchain to improve supply chain management, while discussing which cost drivers help each type of transaction cost, ranging from supplier selection, supply management and monitoring costs.

Keywords: Blockchain; Supply Chain; Transaction cost

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**WP 141 - Purchasing role and performance measurement in context of supplier innovation: The case of Volkswagen**
Christian Felix Müller  
*Technische Universität Dortmund, Germany*

Purchasing and supply management (PSM) does not only contribute to the financial performance of a company. There is an extensive body of literature providing evidence for the influence of PSM especially on the company’s innovation performance. Because of the multidimensional impact scholars and practitioners demand a multidimensional purchasing performance measurement. As the analyzed literature shows a lack of concrete approaches and methods how to measure PSM’s contribution to innovation performance this paper tries to answer the following research questions: What is the role of purchasing in context of supplier innovations? How is this role considered in the purchasing performance measurement?

Keywords: Supplier Innovation; Performance Measurement; Case Study

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**WP 148 - Making sense of purchasing – how sensemaking explains the presence and absence of a team perspective in cross-functional sourcing teams**
Anders Peder Lysholm Hansen  
*Dania Academy, Denmark*

The purpose of the paper is to introduce the concept of sensemaking into the purchasing literature and to use the sensemaking theory to explain how and why purchasing category teams do or do not make sense together and obtain a holistic team perspective on the category. The findings suggest that the performance management system and the presence or absence of activities which enable sensemaking can explain whether or not the teams are able to create shared meaning. Managers should work deliberately on sensegiving in ways which enable sensemaking in the teams.

Keywords: Sensemaking; Category Teams; Cases Studies
WP 149 - Is it just a feeling? Rational of intuitive global sourcing decisions-making in SMEs
Nina Lidegaard¹, Ulla Normann² and Chris Ellegaard¹
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2 Via University College, Denmark

Intuitive decision-making is effective in situations with high uncertainty and time pressure and the intense speed of time-to-market in the fashion industry present an industrial setting enabling the study of intuitive purchasing decision-making. A qualitative study of how and when intuitive decision-making within the area of purchasing and SCM is being used in SMEs in the fashion industry has been made and is still ongoing. Preliminary findings show the SMEs use of different variations of intuitive decision making processes.

Keywords: Intuition; Buyer supplier relationship; SMEs

WP 150 - The development process of financial services offered by logistics service providers
Christiaan de Goeij, Luca Gelsomino and Michiel Steeman
Windesheim University of Applied Sciences, Netherlands

Logistics service providers (LSPs) can create a more strategic position in supply chains for themselves or increase margins, by offering or supporting financial instruments. There is a scarcity of literature in Supply Chain Finance (SCF) on how financial instruments are developed before they are adopted, and on the LSP perspective. Via exploratory research using case studies we aim to give insights on how financial services are developed by LSPs, and what the enablers and inhibitors are in different phases of development.

Keywords: Logistics service providers; Supply chain finance; New service development

WP 151 - How multinational buying firms take multi-stakeholder initiatives: A study of Bangladesh ready-made garments industry
Nandita Farhad Frögren, Jakob Rehme and Donna Marshall
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2 LiU, Sweden
3 University College Dublin, Ireland

This paper highlights the importance of multi-stakeholder initiatives for social sustainability after the Rana Plaza incident. The study provides insight into efforts of multinationals and the collaborations that they initiate. We have also had a supplier perspective in order to understand the consequences of these initiatives. This adds to the sustainable sourcing research by bringing legitimacy theory to uncover whether or not such initiatives can strengthen suppliers’ social sustainability performance. Our findings suggest that multi-stakeholder initiatives are effective in influencing suppliers for implementing social sustainability, at least in a context with weak governmental regulation and enforcement.

Keywords: Multi-stakeholder initiatives; Social sustainability; Ready-made garments
**WP 152 - The Influence of Financial Flows on Sustainability**

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2 Copenhagen Business School, Denmark  
3 University of Tennessee, United States  
4 Windesheim University of Applied Sciences, Netherlands  
5 Technical University Dortmund, Germany

Supply chain members in the early tiers of the supply chain and/or in bottom of the pyramid (BOP) contexts can struggle to access capital to invest into their own sustainability (e.g. more up-to-date manufacturing equipment). Early indications of this study are that the financial flows in the supply chain can support better sustainability outcomes. Specifically, the paper 1) introduces the concepts of ‘enabling’ and ‘rewarding’ use of SCF tools by linking them to social and environmental goals; 2) highlights that these programs, in order to have the intended TBL impact, need to also occur beyond tier-1 suppliers.

Keywords: Sustainable Supply Chain Management; Supply Chains and Networks; Supply Chain Finance; Financial Supply Chain

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**WP 153 - In search for a ‘winning’ solution: relational contracting in a managed competition system**

Madelon Wind and Niels Uenk  
Public Procurement Research Centre, Netherlands

This research analyzes if and how relational contracting can be applied in a managed competition system (MCS). Generally, it is assumed that the two concepts cannot be applied jointly. This while relational contracting may mitigate problems faced in an MCS. The Dutch municipal procurement of the 380 Dutch municipalities has in that light been collected and analyzed. The results show that relational contracting can be applied during various phases of tendering – prior, during, and continued after concluding a contract – in an MCS, at various levels of intensity and for both complex as well as more simple services.

Keywords: Public procurement; Managed competition; Relational contracting; Youth care

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**WP 154 - THE ESTABLISHMENT AND DEVELOPMENT OF A PURCHASING ORGANISATION IN LARGE INFRASTRUCTURE PROJECTS: Proposing a new procurement capability model**

Marika Tuomela-Pyykkönen and Kirsi Aaltonen  
University of Oulu, Oulu Business School, Finland

This paper introduces a procurement capability model for supporting the strategic decision-making in establishing and developing purchasing organisations during the early development phase of large infrastructure projects. Large infrastructure projects have traditionally emphasised the production-related technical competences as the core of their organisational capabilities, and have therefore sometimes adopted a rather limited perspective on the development and of their purchasing organisations. To increase the understanding of procurement function’s strategic importance also in large infrastructure project contexts, and to identify the business opportunities competent purchasing organisation may offer, we are proposing a new procurement capability model.

Keywords: Procurement capability model; Large infrastructure projects; Purchasing organization
This study investigated which supplier capabilities affect buyers’ innovation performance. We examined supplier capabilities through three dimensions: product capabilities, service delivery capabilities, and buyer-supplier relationship capabilities. In addition to direct effects of the supplier capabilities on buyers’ innovation performance, we investigated the moderating effect of buyer operations. We found that buyer operations play a different role on the differential effect of product capabilities, service delivery capabilities, and buyer-supplier relationship capabilities on innovation performance.

Keywords: Supplier capabilities; Buyer-supplier relationship; Innovation performance

The aim of this study was to investigate the mediating effect of smart technologies in the connection between digitalization and relationship performance. The research examined how utilization of digitalization can fuel smart technologies, leading to improvement in both internal and external relationships performance.

Keywords: Relationship performance; Digitalization; Smart technologies

The Supplier Selection Problem (SSP) is a complex problem characterizing the customer-supplier relationships which requires multiple suppliers to allocate orders to multiple decision criteria and having multiple stakeholders to satisfy. To cope with such complexity, various approaches and methodologies have been developed. A database of 1190 scientific articles from 1960 until 2015 about SSP was analyzed with two main aims: i) to deepen the characters of the increasing relevance of the SSP in the literature and its historical evolution; b) to propose an interpretative framework of this evolution to support the definition of proper future researches and practical directions.

Keywords: Supplier evaluation; Purchasing; Customer-supplier relationships
WP 160 - Unlocking responsible luxury
Hakan Karaosman³, Donna Marshall² and Alessandro Brun¹
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2 University College Dublin, Ireland

The supply chain revolution of the 1990s resulted in an increasing dependence on outsourced manufacturers and sub-contractors. However, the most critical environmental and social risks are located at lower tiers in globally dispersed supply networks. Guidance is therefore needed to unlock responsibility across globally dispersed supply networks. By building upon advanced supply chain sustainability practices observed in the luxury fashion context, the study illustrates a radar and advice for companies to enhance their supply chain sustainability based on their strategic focus. Four principles are suggested to integrate ethical and environmental stewardship into supply chains.

Keywords: Supply chain management; Sustainability; Responsible luxury

WP 161 - Does reshoring affect firm performance? An empirical investigation
Guido Orzes¹, Beatrice Bais², Marco Sartor² and Guido Nassimbeni²
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2 University of Udine, Italy

The reshoring phenomenon has gained momentum among managers, scholars and policy makers. Literature has mainly focused on reshoring motivations/drivers, locations, and activities. Only a few papers have studied its performance impact and they are characterized by significant limitations. Our study seeks therefore to present the first systematic analysis of the impact of reshoring on operational performance based on balance sheet data. Our analyses show that reshoring does not allow a better profitability, nor an increase in sales or in labour productivity. It seems however to allow an improvement in operating margins thanks to the increase in value per unit.

Keywords: Reshoring; Backshoring; Firm performance

WP 162 - Tracing the route in the strategic sourcing journey: development and implementation of a hybrid framework
Marco Formentini¹, Marco Boem², Pietro Romano³ and Lisa Ellram⁴
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2 Novalia Srl, Italy
3 Dipartimento Politecnico di Ingegneria e Architettura, Universita' degli Studi di Udine, Italy
4 Miami University, Farmer School of Business, Department of Management, United States

This study presents a novel “hybrid” strategic sourcing framework, designed and developed in collaboration with a leading international company through an action research process. We present the main insights related to the structure of this new framework, its key constitutive components and we discuss the implementation in the company in order to highlight the main academic contributions and the managerial implications. This study contributes to the Purchasing and Supply Management theory and practice by discussing the novel “hybrid” strategic sourcing framework able to support and guide managers in developing coherent decisions to manage suppliers and allocate coherently incentives.

Keywords: Strategic sourcing; Framework; Implementation; Action research; Performance measurement
**WP 163 - Digitally driven sourcing flexibility**  
Barbara Ocicka  
*Warsaw School of Economics, Poland*

Main purpose of the paper is to explore the role of digital technologies in improving dynamic and structural sourcing flexibility within supply chain management. Taking into account the exploratory nature of this paper and the need to obtain an in-depth knowledge of the drivers, exploitation and influence of digital technologies on sourcing flexibility, the author adopted the case study methodology. This study contributes to the existing body of knowledge by (1) suggesting an approach for using digital technologies in supply chain management aiming at increasing sourcing flexibility and (2) identifying good practices in supply networks reconfiguration driven by digital technologies.

Keywords: Supply chain risk; Sourcing flexibility; Digitalisation

**WP 165 - Review of non-compliance in public procurement procedures**  
Tünde Tátrai and Gyöngyi Vörösmarty  
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Our article deals with the issue of non-compliance in public procurement, by analysing the results of the procurement literature and the interviews with national public procurement experts. Our research questions concern how the compliance risk combats innovativeness. In this context we identify non-compliance types. The proposition is that the compliance problems during the procurement process may arise from the purchasers' innovativeness (sustainability aspects) or the lack of knowledge will be examined.

Keywords: Compliance; Public procurement; Remedy procedure

**WP 167 - The impact of centralization, standardization and information systems on procurement performance in local governments: a comparative study between Italy and USA**  
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¹ The Pennsylvania State University, United States  
² Politecnico di Milano, Italy

There is broad recognition of the potential contribution of procurement within local governments, as efficient and effective management of these activities has a crucial impact on the achievement of objectives at a local level. Despite an extensive literature on public procurement centralization, process standardization, and e-procurement usage, it is still not clear which is the impact that these factors have on procurement performance. The primary purpose of this work is to analyze more in detail how these levers contribute to improving procurement performance, and the role played by contingent factors in driving decisions regarding their configurations.

Keywords: Public Procurement; Organizational design; Performance
Supply chain finance (SCF) is becoming a popular method to improve suppliers’ sustainability performance. However, it is unclear whether and how SCF can really influence suppliers’ sustainability. This paper answers the question: How do SCF practices for sustainability affect suppliers’ social and environmental sustainability performance? A coffee-exporting company with suppliers throughout South-America is chosen to explore the question. The Motivation-Opportunity-Ability framework is used to structure the findings. Preliminary findings show that by creating the opportunity, SCF can impact social sustainability. Environmental sustainability appears to be influenced mainly by motivation and ability, despite a lack of opportunity observed in some cases.

Keywords: Supply chain finance; Supplier sustainability performance; Supply chain collaboration; Social sustainability; Environmental sustainability; Coffee supply chain; Supplier perspective
**WP 173 - Incentives, dependency, trust, satisfaction and performance: A social exchange perspective on buyer-driven incentives**

Paul Ghijsen, Wim Lambrechts and Gert-Jan Van der Pijl  
*Open University in the Netherlands/ Faculty Management, Science and Technology, Netherlands*

The objective is to analyse the influence of buyer-driven competitive and cooperative incentives on supplier trust, satisfaction and performance from the supplier’s point of view applying Social Exchange Theory. Based on a survey held among sales and key account managers of Dutch manufacturing companies yielding 167 responses, competitive incentives appear to have a negative influence on behavioural trust, competence trust, buyer attractiveness and supplier satisfaction but not on performance. Cooperative incentives seem to have a positive influence on all, but behavioural trust. They do not seem to influence supplier’s trust in buyer’s behaviour in contrast to hypotheses based on SET.

Keywords: Competitive incentives; Cooperative incentives; Social exchange theory (SET); Supplier performance; Supplier trust

**WP 174 - e-supply chain collaboration: a review**

Camillo Loro, Riccardo Mangiaracina, Alessandro Perego and Angela Tumino  
*Politecnico di Milano, Italy*

Supply Chain Collaboration (SCC) can be defined as the collaborative activities between buyers and suppliers, including production and procurement planning, new product development, supply chain monitoring and control. In SCC, the importance of information integration using electronic tools is widely recognised, thus we can talk of eSCC (eSupply Chain Collaboration). The low diffusion of these practices indicates that among companies there is a lack of perception of their potential benefits. This paves the way for this study that concerns a literature review to present the extant knowledge on the topic of eSCC and to provide an agenda for future works.

Keywords: E-supply chain collaboration; Supply chain; Digitalisation

**WP 175 - Analysing knowledge management alignment in supply firms facing digital transformation**

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² University of Naples Parthenope, Italy

This paper proposes a novel fuzzy logic methodology to evaluate the misalignment between an enterprise’s knowledge and knowledge management systems (KMSs). The proposed methodology is implemented by means of a field analysis based on semi-structured face-to-face interviews involving a sample of supply firms operating in high tech and/or complex industries. The paper highlights that there is a high level of misalignment of an enterprise’s knowledge with KMSs, and an ample variety of behaviours emerges. The paper highlights the difficulties that supply firms have in adopting KMSs aligned with the enterprise’s knowledge and proposes a methodology able to improve such alignment.

Keywords: Decision-making; Fuzzy Logic; Knowledge Management; Suppliers
**WP 177 - Evaluating the transition towards a circular economy in agri-food supply chains**

Meletios Bimpizas-Pinis¹, Andrea Genovese¹, Sonal Choudhary³, David Evans¹ and Estrella Luna-Diez²

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² University of Birmingham, United Kingdom

The post-industrial socio-economic regime of linear production model has reached its limits. Circular economy has emerged as the alternative that could re-establish and maintain the circular flow of nutrients and energy between human society and the environment. Drawing upon the concept of supply networks, resource-dependence theory and resource-based view theory, a conceptual framework is developed to evaluate the feasibility of the transition towards a circular economy in agri-food supply chains. Hypotheses are based on the relationship between external integration and adoption of circular economy practices under the moderating effect of supplier/customer dependence.

Keywords: Food supply chain; Circular economy; Sustainable development; Supply chain integration; Conceptual framework

**PP 179 – The Development of a buyer-supplier collaboration index**

Tobias Schoenherr

Michigan State University, United States

In this practitioner paper we focus on the consumer packaged goods (CPG) industry and develop a comprehensive buyer-supplier relationship index. With this index, the working relationship between buyers and suppliers can be assessed and benchmarked against industry averages. This will help companies identify areas for improvement to take their buyer-relationships to the next level. Specifically, the index will enable companies to develop an objective perspective on the level of collaboration as compared to peers, to identify and understand major challenges to closer supplier collaboration, and to quantify the impact of collaboration on company performance.

Keywords: Buyer-supplier relationships; Consumer packaged goods industry; Survey and case study research

**WP 180 - Purchasing Practices of the Informal Enterprises in emerging economies**

John Manso Frimpong

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In Ghana, the informal enterprises are largely owned and operated by individuals with little or no formal education and are mostly not registered. One critical business process practiced by both large and small firm but yet to harness its full benefits by informal enterprises is the purchasing of inputs. These enterprises face the challenge of how to organize their purchasing activities of sourcing, negotiation, and building and maintaining good working relationships with their suppliers, etc. This study is aimed at exploring an understanding of the purchasing practices of the informal enterprises focused on the manufacturing, commerce and the services subsectors.

Keywords: Informal enterprises; Purchasing practices; Ghana; Informal sector; Ashanti region
WP 186 - Toward triadic supply network relationships in collaborative new product development: An investigation on supplier-supplier relationship

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This paper investigates the inter-organizational relationships in supply networks during collaborative new product development (NPD). Build on the social network theory (SNT) and information processing theory (IPT), it investigated the underlying coordination mechanism of supplier-supplier relationship in the supply network triad under collaborative NPD context, and explored the impact of product features on the coordination mechanism. Empirical evidence from 16 cases supports the explanatory power of SNT and IPT in the realm of multi-actor product co-development process. While this initial study explored limited variables, future research can enrich the framework with a wider set of theory constructs.

Keywords: Supplier-supplier relationship; Supply network relationship; Triads; Triadic relationship; New product development

WP 195 – Supply chain finance in not for everyone - Are logistics service providers willing to advance supply chain finance?

Viktor Elliot and Johan Woxenius
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The purpose is to investigate from a financial, logistics and legal standpoint whether logistics service providers (LSPs) can deliver enhanced supply chain finance (SCF) solutions by acting as validators that increase visibility of supply chains (SCs). Preliminary case research indicate that some LSPs may decide to actively avoid getting involved in the financial supply chain.

Keywords: Supply Chain Finance; Trade and transport facilitation; Logistics Service Providers

WP 197 - Unblocking the chain? A multi-method study of blockchain implementation in PSM

Remko van Hoek
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This paper present findings from a focusgroup, three case studies and a survey studying implementation considerations and drivers of blockchain in purchasing and supply management. Findings confirm the early stage of blockchain implementation and the wide consideration given to blockchain, in particular in the procurement part of the supply chain. Based upon the in depth study of three of the few companies that are actually implementing blockchain we uncover key differences with other emerging and older technologies. Using a survey we begin initial statistical generalization and advance literature by going beyond theoretical or high level study of use cases.

Keywords: Blockchain; Implementation; Multi-method
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