

DSJ Department Mission Statements

Analytical Studies in Supply Chain Management (Nicholas Petruzzi & Dilip Chhajed)

The Analytical Studies in Supply Chain Management Department seeks to publish high-quality research that advances the theory and practice of supply chain management through the persuasion of its analytical arguments. In this context, *supply chain management* is broadly defined to include any strategic or operational aspect associated with any stage in the life-cycle of a good or service, regardless of whether the focus of the aspect lies within the firm, at the interface of two or more firms, or between the firm and the competitive or regulatory landscape within which it operates. Within this broad scope, original topics, novel syntheses, and creative lines of inquiry are especially welcome.

Also within this context, *analytical argument* is defined broadly to mean any well-positioned, well-motivated, and well-articulated narrative built from sound economic or decision-theoretic principles and executed through logical reasoning that traces from thesis to conclusion. Translated, this means research objectives that are well defined and well framed, research designs that are crafted to meet those objectives, and research conclusions that are derived from deductive and inductive reasoning applied within the scope of that research design. In this spirit, although consequences should follow from well-honed and internally-consistent antecedents, the antecedents themselves need not necessarily be validated to complete the argument; and although conjecture should be teased from consequence for maximum effect, conjecture is nevertheless welcome as a rhetorical device to flesh out the narrative. In the final analysis, the argument's persuasive impact shall lie in the strength of its conclusion, where a strong conclusion is one that is compelling in the answers it provides and inspiring in the questions it produces.

Behavioral Operations & Supply Chain Management (Enno Siemsen)

The department focuses on research in operations & supply chain management that is behavioral in nature. Behavioral research in these areas is growing, and very important to further our understanding of operations and supply chain management in practice. The department will consider theoretical and methodological approaches to behavioral research that are rooted either in economics or in psychology.

Papers submitted to the department need to demonstrate (a) a micro-focus on the behavior or decisions of individuals or small groups of individuals, (b) a point of view that allows such individuals to deviate from hyper-rational behavior, and (c) a focus on a context in operations and supply chain management.

Hyper-rational behavior has three aspects: (1) individuals are motivated by self-interest, usually expressed in monetary terms, (2) they act in a conscious and deliberate manner, and (3) they behave optimally for a specified objective function. We consider studying any potential violation of these three aspects as behavioral research. For example, studying social preferences and social comparisons is behavioral in nature since it violates the first aspect; studying emotions at work is behavioral since it violates the second aspect.

The department is methodologically agnostic, and will consider high quality submissions that focus on experiments, field research, survey research, modeling, system dynamics and other methodologies. Research that is not particularly focused on operations or supply chain management will only be considered as an exception.

Business Analytics (Michael Ketzenberg)

The business analytics department of DSJ seeks to publish high-quality and methodologically rigorous research that contributes to advancing business analytics knowledge and usage through developing or adapting empirical methodologies in a novel way for an important class of business decision-making applications, or solving an important business decision-making problem by introducing an innovative, generalizable approach that utilizes existing analytics methods. Both types of studies are expected to illustrate their contribution by using real data (when using real data is infeasible, a well justified and carefully constructed simulated dataset/environment are acceptable).

“Analytics” includes any type of empirical method, such as machine learning algorithms, statistical models, and econometric methods. “Problem” refers to significant business (or other organizational) decision-making challenges or opportunities.

A suitable submission, unlike submissions to statistics/data mining/econometric journals, must have relevance to business decision-making. At the same time, unlike submissions to other departments in this journal, the empirical methodologies must be focal.

Guiding questions for reviewing submissions for the Business Analytics department:

- Is the decision making problem important?
- Are the proposed empirical methodology or its usage novel?
- Is the proposed methodology properly benchmarked against existing alternatives?
- Is the theoretical or empirical derivation scientifically rigorous?
- Does the analytics use generalize to contexts beyond the specific dataset?

Empirical Studies in Supply Chain Management (Elliot Bendoly, Sriram Narayanan, & Stephan Wagner)

The Empirical Studies in Supply Chain Management department focuses on studies that investigate inter-organizational, value-chain problems involving the management of products & services, information, and financial flows across organizations and consumers. Studies relevant to this department must use empirically-derived results as a primary basis for making theoretical conclusions and recommendations for decision making. The studies must be grounded in practice and motivated by problems faced by a firm or an industry. Application-based or evidence-based analytical models should be submitted elsewhere. Both qualitative and quantitative methods are welcome.

Topics relevant to the department include:

- * Supply management
- * Management of sourcing relationships
- * Multi-tier sourcing
- * Inventory management
- * Supply chain financing
- * Transportation management
- * Distribution management
- * In-bound, out-bound, and last-mile logistics
- * Management of supply chain information flows
- * Channel management
- * Contract designs
- * DC design and operations
- * Multi-modal transportation operations

All papers submitted for review will be expected to display levels of scientific rigor, relevance, and exposition that are consistent with the overall mission of the journal

Healthcare and Service Operations (David Dobrzykowski, Susan Feng Lu, & Sriram Venkataraman)

Service supply chains, especially those focused on delivering healthcare, constitute a critical part of most modern economies, both from the perspectives of the firm and its internal and external stakeholders. Most service organizations operate under highly uncertain conditions and have to plan for unforeseen contingencies, and yet need to satisfy or delight their customers. The situation acquires greater criticality in healthcare, where performance measures include clinical quality and patient satisfaction, in addition to the traditional operational, financial, and market measures.

The department considers supply chain and operations broadly. For instance, healthcare operations exist in the broader supply ecosystem that includes pharma, medical device, and EMR system manufacturers, hospitals, nursing homes, and other ancillary delivery-settings, physicians, nurses and patients, as well as insurers, methods of payment, and federal and state governmental agencies. Similarly, other service settings might have their own unique narrow and broad contexts.

The department strives to publish papers which are motivated by real-world problems, utilize theory to better understand the problems, are rigorously investigated, and have theoretical, industry or regulatory implications. The department welcomes papers from diverse industry settings at different units (levels) of analysis. The department will consider high quality submissions that use primary or secondary data, and is agnostic towards how the data were collected (e.g., experiments, surveys, and publicly available datasets) and what research methods were used, as long as both the data and methods are appropriate for the study. Research that is not particularly focused on service or healthcare will only be considered as an exception.

Humanitarian Operations and Supply Chains (Luk Van Wassenhove)

The subfield of humanitarian and health supply chains has grown substantially over the last decade. There is a sharp increase in practitioner and policy-maker interest, as well as a strong uptake from researchers. Of course, the current interest for the United Nations Sustainable Development Goals and the impact of recent natural disasters and pandemics explain this. Clearly, the research interest is not just there because of available funding (which is nice to have), but especially since researchers are looking for purpose and impact, and they realize that our discipline can make a strong difference. Our contributions, by applying available knowledge creatively and by extending existing theory to fit the humanitarian and health supply chain context, can be substantial, and they may overflow to related disciplines or subfields. Today's world is smaller, and it spins faster making problems more challenging. Rapid technological evolution and progress in AI and data analytics open new perspectives to tackle age-old problems related to some of the UNSDGs, and particularly humanitarian action.

This department will take a broad view on these big and impactful issues. It will be open to different methodologies and approaches, and privilege novel insightful study. It will invite more technical and abstract pieces as well as more applied context-dependent studies, provided they inspire readers and invite further research. Given the importance and potential impact of the broad topic area of this department, responsible and relevance-based research will be given special attention. We are specifically looking for real problems, actual contexts, tested solutions and insights, proven results and impact. In short, our ambition is to make a mark by contributing to the further academic development of this important subfield, and to produce knowledge that can substantially improve practice.

Information Systems (Paul Benjamin Lowry and Rajiv Sabherwal)

The Information Systems department invites papers that develop and test empirical models focusing on the creation, adoption, use, and/or implications of information systems in organizational, group, personal, or online contexts. The department welcomes rigorous analytical approaches grounded in either qualitative or quantitative methods. Papers should present models and results clearly and should be well written. Most serious consideration is afforded to papers with findings of practical significance and/or contributions to theory. We welcome theoretical review or meta-analysis articles that propose new theoretical models or groundbreaking foundations for theory building (e.g., construct or taxonomy development). Finally, we are interested in papers that make innovative methodological contributions or develop new instrumentation. Specific examples of topic areas include, but are not limited to the following:

- The role of IS in generating data, information, and knowledge:
 - Big data and analytics as applied in IS contexts (e.g., crowdsourcing, social media sentiment analysis)
 - The use and impact of artificial intelligence and machine learning, especially in organizational contexts
 - Management of knowledge, including through information technologies
- IS platforms and implications:
 - Social media, digital platforms, and digital collaboration
 - Online communities and online shopping
 - Peer-to-peer and crowdsourcing markets
- Human aspects of IS:
 - Security, privacy, deviance, and ethics of IS
 - HCI, design issues, gamification, and design science
 - IS and user behavior, such as resistance, interactivity, engagement
- Broader implications of IS:
 - Strategy, structure, IT governance, and organizational impacts of IS
 - Global and cross-cultural IS Issues
 - E-business and e-government
 - Business value and economics of IS
- Processes associated with IS:
 - IS adoption, diffusion, continuance, and discontinuance
 - IS planning, development, and implementation
 - Management of IS projects
 - Design of IS

IS/OM/Finance/Accounting Interface (Susan Kulp)

The IS/OM/Finance/Accounting department promotes the investigation of topics that answer questions at the intersection of IS/OM and Finance/Accounting. Research is often performed in silos, holding implications from other streams of research constant. Some of the most interesting and applicable findings are learned as a result of crossing traditional boundaries and bringing in research from other disciplines. In this section, we seek papers that answer questions that span across these fields and may include topics such as the incentive and information sharing implications of inter-organizational relationships, the financial effects of OM initiatives, and the market implications of supply-chain management techniques, among others.

This section is open to papers using a variety of methodologies, including analytical, empirical, behavioral, and field studies. We seek to publish papers that make a contribution to the literature, answer an interesting question, are rigorously implemented and are well written.

Logistics (Christopher W. Craighead)

The Logistics Department seeks to develop and publish papers that significantly enhance the logistics body of knowledge. Papers focusing on traditional logistics topics such as transportation, logistics providers, distribution, shipper-carrier exchanges, and warehousing (among others) are certainly a good fit. Furthermore, papers centering on the physical flows in the supply chain (that may not necessarily fit neatly within a single traditional logistics topic) are appealing to the department. Within this domain, research may examine key phenomena that drive (e.g., omni-channels, responsiveness, agility), enable (e.g., technology), protect (e.g., continuity), hinder (e.g., disruptions), or reverse (e.g., recalls) product flow. Regardless of the topics, successful papers within the department offer significant theoretical and pragmatic impact.

Marketing with OM or IS Interface (Haipeng (Allan) Chen and Bikram Ghosh)

We consider a wide range of topics at the interface of marketing and OM/IS. Submissions are strongly encouraged to address new and emerging issues related to pricing, product design, and promotion in the areas of marketing communications, channel of distribution, competition, revenue management, and information and recommendation systems.

Research should draw upon foundational theories and significant empirics concerning firm and consumer behaviors in marketing, OM/IS and allied fields (e.g., economics, psychology) to shed light on theoretically important and managerially relevant questions. Methodologically, we are open to submissions that use game-theoretical, econometrical, experimental or meta-analytical techniques, and strongly encourage submissions that take an inter-disciplinary, multi-method approach.

Methodologies (George Marcoulides)

The aim of this department is to serve as an outlet for researchers to publish their empirical and methodological work related in general to the decision sciences. The types of articles we have in mind for this department of the journal are characterized by their focus on novel analytic and methodological developments, on original uses of modeling techniques, on new and innovative approaches to the analysis of data to address a particular substantive topic, or on issues related to the assessment of experimental and/or theoretical perspectives (although this list is intended to merely be illustrative and not exhaustive). The main criteria for manuscripts in this department is that they are methodologically rigorous and utilize one or more real data examples that will be of general interest to researchers in the decision sciences.

Product, Service, and Process Innovations (Janice Carrillo, Anant Mishra, and M. Johnny Rungtusanatham)

An innovation is an “iterative process initiated by the perception of a new market and/or service opportunity for a technology based invention which leads to development, production, and marketing tasks striving for the commercial success of the invention” (Garcia and Calantone 2002, p.112). Innovations may be incremental or radical in nature. The Product, Service, and Process Innovations (PSPI) Department encourages submissions concerning innovations in:

- (i) Products (e.g., wireless, remote-controlled thermostats) and/or services (e.g., digital banking) organizations offer for sale.
 - Liu, Z., Lin, Z., Wang, X., & Wang T. 2020. Self-Regulation Deficiency in Predicting Problematic Use of Mobile Social Networking Apps: The Role of Media Dependency. *Decision Sciences*. Early View.
- (ii) Processes organizations deploy to create existing or new products and services (e.g., mRNA technology for vaccine development).
 - Chambers, C. G., Snir, E.M., & Ata, A. 2009. The Use of Flexible Manufacturing Capacity in Pharmaceutical Product Introductions. *Decision Sciences*, 40(2), 243-268.

(iii) Processes that affect innovations in product or service delivery (e.g., socio-technical changes in new product/service/development processes).

- Alblas, A., & Notten, M. 2020. Speed is Significant in Short-Loop Experimental Learning: Iterating and Debugging in High-Tech Product Innovation. *Decision Sciences* . Early View.

(iv) Factors that enhance or impede organizational capability to effectively create or implement such innovations. Examples of innovation effectiveness can include both financial and non-financial measures.

- Choo, A., Chandrasekaran, A., & Chinaprayoon, C. 2019. The Role of Domestic and Foreign Knowledge Inflows on the Relationship between R&D Portfolio Mix and Innovation Outcomes: An Empirical Study of Manufacturing Firms in an Emerging Economy. *Decision Sciences*, 51(2), 349-394.

An incomplete listing of exemplary topics of interest to the PSPI Department includes:

- Innovation-driven organizational change
- Product, service, or process design architecture
- Knowledge management
- Innovative business models such as sharing economy and crowd-based platforms (e.g., crowdfunding and crowdsourcing)
- Value chain innovation in non-traditional settings such as the public sector and emerging economies

The PSPI Department welcomes submissions employing diverse research methods and combinations of different methods. Given that product, service, and process innovations are typically cross-functional endeavors, the PSPI Departments also welcomes interdisciplinary papers addressing important topics relevant to innovations.

Retail Operations (Michael Galbreth and Guangzhi Shang)

The complex and fast-evolving nature of the retail industry gives rise to a broad range of operational challenges. The retail operations research area has expanded in recent years to reflect the continued growth of online retailing and the advent of omnichannel retailers. It has also begun to address the emerging role of analytics in retail activities that were traditionally managed in a less data-driven manner.

This department seeks research that addresses problems and issues in the retail sector with an operations management angle. Topics of interest include but are not limited to (examples in parenthesis):

- Forecasting in the retail context, including consumer demand and returns forecasting (Shang et al 2020)
- Targeted promotion, markdown pricing, advance selling, and other innovative retail pricing strategies (Wu et al 2020; Yin et al 2009)
- Store operational planning issues such as product display, shelf space allocation, and assortment planning (Pak et al 2019; Wan and Dresner 2015)
- Labor productivity issues such as workforce scheduling, staffing, buyer assistance, and salesforce training (Chuang et al 2016)
- Retail inventory issues such as inventory record inaccuracy, vendor-managed inventory, order fulfillment strategies (e.g., ship to store, buy online and pickup in store), inventory information revelation, and inventory turnover (Park et al 2020; Rekik et al 2019)
- Product return/exchange management, including the impact/value/design of return policies, return drivers, consumer behavior, and return reduction/disposition strategies (Rao et al 2017; Shang et al 2019)
- Usage/management of technology in retail such as RFID, virtual fitting, shopping path tracking, and live-chat customer support (Gallino and Moreno 2019)
- Omni-channel retail issues such as showrooming and online-offline conversion (Zhang et al 2020)
- Location, chain network, and retail store design issues (Zhao et al 2019)
- Shipping and logistics issues such as the value of fast shipping, on-time delivery, return logistics, and the design of shipping policies (Leng and Becerril-Arreola 2010)

All research methodologies are welcome, including analytical, empirical, experimental, case study, and field/action-based research. Manuscripts should be of a high academic standard and should adhere to the format, style, and other established guidelines for DSJ submissions.

Due to the wide range of potential research questions in the retail sector, it is natural for a paper to fit within more than one DSJ department. When the authors are not certain whether the Retail Operations department is the best fit, especially relative to Marketing with OM or IS Interface, Analytical Studies in SCM, or Empirical Studies in SCM, please consult the co-Editors-in-Chief.

References

- Chuang, H.-C., Oliva, R., and Perdikaki, O. (2016), Traffic-Based Labor Planning in Retail Stores. *Production & Operations Management*, 25: 96-113.
- Gallino, S., and Moreno, A. (2018) The Value of Fit Information in Online Retail: Evidence from a Randomized Field Experiment. *Manufacturing & Service Operations Management* 2018 20:4, 767-787.
- Leng, M., and Becerril-Arreola, R. (2010) Joint Pricing and Contingent Free-Shipping Decisions in B2C Transactions. *Production & Operations Management*, 19: 390-405.
- Pak, O., Ferguson, M., Perdikaki, O., and Wu, S. (2019) Optimizing stock-keeping unit selection for promotional display space at grocery retailers. *Journal of Operations Management*. 2019; 1-33.

Park, S., Rabinovich, E., Tang, C.S., Yin, R. and Yu, J.J. (2020), Technical Note: Should an Online Seller Post Inventory Scarcity Messages?. *Decision Sciences*.

Rao, S., Lee, K.B., Connelly, B. and Iyengar, D. (2018), Return Time Leniency in Online Retail: A Signaling Theory Perspective on Buying Outcomes. *Decision Sciences*, 49: 275-305.

Rekik, Y., Syntetos, A., and Glock, C.H. (2019) Modeling (and Learning from) Inventory Inaccuracies in E-retailing/B2B contexts. *Decision Sciences*, 50: 1184-1223.

Shang, G., Ferguson, M.E. and Galbreth, M.R. (2019), Where Should I Focus My Return Reduction Efforts? Empirical Guidance for Retailers. *Decision Sciences*, 50: 877-909.

Shang, G., McKie, E. C., Ferguson, M. E., and Galbreth, M. R. (2020). Using transactions data to improve consumer returns forecasting. *Journal of Operations Management*.

Wan, X. and Dresner, M.E. (2015), Closing the Loop: An Empirical Analysis of the Dynamic Decisions Affecting Product Variety. *Decision Sciences*, 46: 1141-1164.

Wu, M., Zhu, S.X. and Teunter, R.H. (2020), Advance Selling and Advertising: A Newsvendor Framework. *Decision Sciences*.

Yin, R. Aviv, Y., Pazgal, A., and Tang, C. (2009) Optimal Markdown Pricing: Implications of Inventory Display Formats in the Presence of Strategic Customers. *Management Science*, 55:8, 1391-1408

Zhang, T., Li, G., Cheng, T.C.E., and Shum, S. (2020), Consumer Inter-Product Showrooming and Information Service Provision in an Omni-Channel Supply Chain. *Decision Sciences*.

Zhao, X., Lim, A., Guo, H., Ding, C., and Song, J.-S. (2019) Retail Clusters in Developing Economies. *Manufacturing & Service Operations Management*. 21:2, 452-467

Revenue Management and Pricing (Metin Cakanyildirim and Ozge Sahin)

The Revenue Management and Pricing Department promotes the use of operations research, econometrics, behavioral and analytics tools to study how to better match the supply of a good or service with its demand over time. While research in revenue management has traditionally emphasized issues related to pricing and capacity control decisions, recent developments in the field also allow the control of many other variables. Examples include information structure, liquidity, matching mechanism, etc. The scope of revenue management research encompasses a wide range of applications, including traditional transportation and hospitality industries, as well as many non-traditional and emerging applications, such as web advertising, online matching markets, retail analytics, etc.

This department welcomes papers based on innovative research and applications, which enhance our understanding of increasingly complex market conditions and promote the spread of best practices. These may include economical modeling of existing and emerging applications, methodological contribution to the solutions of existing problems, as well as behavioral and empirical studies that validate existing theory or examine market phenomena. In line with the editorial mission of *Decision Sciences*, the department emphasizes practical relevance of submitted papers.

Socially Responsible Operations and the Circular Economy Department (Gilvan C. Souza)

The department invites research papers that address strategic, tactical, and operational issues in supply chains, where there is a significant analysis of environmental (e.g., environmental impact) and/or social implications (e.g., stakeholder analysis), in addition to the usual economic implications in the particular research questions. If a manuscript does not contain an analysis of environmental and/or social impacts, it is not considered to be a fit, and it should be submitted to another department. All manuscripts must address the managerial relevance of the insights and findings.

Examples of topics include, but are not limited to:

- The circular economy
- Closed-loop supply chains, including remanufacturing, recycling, and reuse of products post-consumer use. Manuscripts addressing consumer returns should be submitted to the “Retail Operations” department.
- Interface between supply chain management and industrial ecology, including life-cycle assessment
- Implications of “Design for Environment” approaches for supply chain management
- Socially responsible operations, including responsible sourcing
- Energy efficiency, renewable energy, and energy storage
- Servicizing and the sharing economy
- Shared value creation

Theories in Decision Making (Dave Ketchen and Giuseppe “Joe” Labianca)

The department publishes high-quality research that advances the theory and practice of decision making through the persuasion of its conceptual arguments. In this context, high quality research is work that develops important new theory about decision making and decision makers, skillfully calls existing theory about decision making and decision makers into question, or synthesizes existing insights about decision making and decision makers in order to develop new insights. Decision making is broadly defined to include any strategic or operational aspect associated with how individuals, groups, organizations, and/or supply chain members gather information, analyze information, make choices, implement choices, and evaluate the outcomes of choices. Conceptual arguments refer to descriptions, explanations, and predictions that are grounded in an existing theoretical perspective and/or are efforts to break new theoretical ground. Manuscripts that offer insights that are compelling to researchers and managers alike are more likely to succeed than those that only offer value to one group or the other. Manuscripts on decision making that build theory using formal theory or that test or build theory using qualitative or quantitative empirical methods are outside the department’s domain.