



Management Science

Publication details, including instructions for authors and subscription information:
<http://pubsonline.informs.org>

Editorial Statements

To cite this article:

(2018) Editorial Statements. Management Science 64(2):vi-x. <https://doi.org/10.1287/mnsc.2018.3038>

Full terms and conditions of use: <https://pubsonline.informs.org/Publications/Librarians-Portal/PubsOnLine-Terms-and-Conditions>

This article may be used only for the purposes of research, teaching, and/or private study. Commercial use or systematic downloading (by robots or other automatic processes) is prohibited without explicit Publisher approval, unless otherwise noted. For more information, contact permissions@informs.org.

The Publisher does not warrant or guarantee the article's accuracy, completeness, merchantability, fitness for a particular purpose, or non-infringement. Descriptions of, or references to, products or publications, or inclusion of an advertisement in this article, neither constitutes nor implies a guarantee, endorsement, or support of claims made of that product, publication, or service.

Copyright © 2018, INFORMS

Please scroll down for article—it is on subsequent pages



With 12,500 members from nearly 90 countries, INFORMS is the largest international association of operations research (O.R.) and analytics professionals and students. INFORMS provides unique networking and learning opportunities for individual professionals, and organizations of all types and sizes, to better understand and use O.R. and analytics tools and methods to transform strategic visions and achieve better outcomes. For more information on INFORMS, its publications, membership, or meetings visit <http://www.informs.org>

Editorial Statements

<https://doi.org/10.1287/mnsc.2018.3038>

Copyright: © 2018 INFORMS

Big Data Analytics

Hamid Nazerzadeh, University of Southern California
J. George Shanthikumar, Purdue University

Increased computational power and the explosion of data are changing the way and the extent to which organizations capture data, analyze information, and make decisions. These changes provide unique opportunities for researchers in management science to integrate extensive data in our studies and to identify novel ways of modeling to generate new understandings of and drive decisions for businesses.

We look for innovative contributions to the core of management science by integrating big data analytics that would go beyond traditional econometrics analysis, pure (deterministic or stochastic) optimization models, or pure data mining and machine learning algorithms. Though big data enhances prediction power and decision effectiveness of classic models by expanding their variables and feature space, significant contributions to management science research should emphasize how available information provided by data may invoke novel ways of modeling and analysis, leading to new managerial insights, policies, opportunities, and implications. For example, how transportation data can be used to improve efficiency or reduce accidents, how healthcare data can be applied to reduce the spread of a disease, how social network data can be used in microfinancing, how vast amount of data can be applied to model heterogeneity in consumer choice model and what would be the impact on the business, how machine and product sensor data can enable collaborative learning between equipment supplier and product manufacturer, how consumer purchase history data can enable personalized supply chain management strategies, etc.

While demonstrating the practicality of the model and methodology developed using real data is always valuable, use of real data is not a must. We would also welcome submissions of modeling and technical papers with awareness of available data that truly integrate such information to derive new understandings.

Business Strategy

Joshua Gans, University of Toronto

The Business Strategy Department seeks papers with research questions that deepen our understanding of

business performance in competitive contexts. The department is interested in rigorous analyses that show how managerial choices impact performance, broadly construed, with special attention paid to persistent differences amongst competitors. Because we define strategic choices as those with significant competitive implications, the department will eschew papers that focus primarily on internal functions (e.g., finance or marketing), but welcome studies that link firm organization to market performance.

The primary criterion for consideration for publication in *Management Science* is the potential for impact on future study. This means that the research must conform to rigorous standards of quality in both theory development and empirical methodology and execution. We are agnostic as to the disciplinary origins of analysis. Finally, given our primary criterion, this means that significant contributions may very well raise more questions than they answer and generate challenging and controversial findings with respect to the existing literature.

Decision Analysis

Manel Baucells, University of Virginia
Han Bleichrodt, Erasmus University and Australian National University
Yan Chen, University of Michigan
Axel Ockenfels, University of Cologne
Yuval Rottenstreich, University of California, San Diego

The Decision Analysis Department seeks papers that promote the understanding of how decisions are and should be made. Thus, the scope of the department includes topics that are traditional Decision Analysis as well as papers in Judgment and Decision Making, and Behavioral Economics. Papers must meet the rigorous standards of the journal. They must also be relevant to the science of management, by dealing with issues important to managers and executives and having the potential to impact management practice.

Papers may consider individual and group decisions, negotiations, game theoretic analysis of strategic interactions, as well as mechanism and market design. Papers should be theory-based and may develop original theory, address problems of implementation, propose new models or methodologies, present empirical evidence either from the lab or from the field,

and/or involve innovative or important applications. Descriptive theory papers should be integrative and account for both existing findings and new data. We particularly encourage multidisciplinary research that embraces different methodologies in the social and management sciences.

Entrepreneurship and Innovation

Ashish Arora, Duke University

Sridhar Tayur, Carnegie Mellon University

Toby Stuart, University of California, Berkeley

This department considers research on entrepreneurship and innovation. Entrepreneurship includes new business creation as well as entrepreneurial activities undertaken within existing businesses or through new market mechanisms. Innovation includes novel and creative ways to create value through new products or services, new business models, or new processes.

Topics of interest to this department include (but are not limited to) new venture formation processes, financing, and strategies; R&D and project management, performance metrics, and portfolio evaluation; regional and global dynamics of entrepreneurship and innovation; university and science-based innovation and technology transfer; continuous improvement and new process development; new product development, development processes, and service design; patents, licensing, and intellectual property; business model innovation (e.g., operations, marketing, or network innovation); open innovation and distributed innovation; and market and financial impact of innovation.

The department encourages submissions of shorter papers with high-quality original high-impact research that is of broader interest, analogous to what might appear in *Science*, *Nature*, or *PNAS*, and to what appeared more frequently in *Management Science* in its first decades. These may be a suitable vehicle to cover emerging (and possibly risky) topics such as artificial intelligence/machine learning applications in personalized cancer therapy, virtual reality and augmented reality applications, cryptocurrencies, or applications of quantum computing (and other moonshots). Field studies are of particular interest, especially on contemporary topics of importance in society such as gender (or other) bias in entrepreneurship. Such papers should be no more than 5,000 words (including references and everything else not provided in a separate supplementary appendix). Such papers will undergo faster review, with initial decisions being returned to the authors within four weeks. Papers will either be accepted with potentially modest revisions, or rejected. Authors invited to revise their work should do so within a matter of weeks; the final decision will follow within one to two weeks.

The principal review criteria for papers in the department are as follows: (i) Does the paper address

a question of managerial importance and relevance? (ii) Does the paper use appropriate methodology to answer the question convincingly and rigorously? (iii) Does it change our thinking on an important topic in entrepreneurship or innovation? (iv) Does it provide improved management principles to operate new ventures or manage innovation?

Most successful papers will be grounded in a phenomenological understanding or built from illustrative examples. Papers that are purely theoretical or conceptual in nature must be well motivated and connected in a substantial and realistic way to a problem of managerial importance. Because most problems in entrepreneurship and innovation are inherently cross-functional or interdisciplinary or both, papers submitted to this department need not adhere to a particular disciplinary or methodological approach.

Healthcare Management

Stefan Scholtes, University of Cambridge

The department invites submissions that advance knowledge of how to better organize and manage the delivery of healthcare services in developed, emerging, or developing economies. Papers will offer rigorously evaluated insights that are of significant practical relevance for healthcare leaders (senior managers, clinicians, policy makers).

Papers should be context-specific and problem-oriented, focusing on significant challenges of healthcare management, including improving patient access, improving outcomes and patient experience, reducing costs, reducing errors, managing demand, optimizing patient flow, measuring and improving population health, optimizing public health programs, leveraging technology, engaging the workforce, developing new business models, improving alignment and coordination between organizations, or improving organizational learning and innovation capabilities.

The department encourages submissions that engage with current industry trends and their managerial challenges, such as the digitization of patient records, genomics and precision medicine, value-based healthcare, integrated care, patient empowerment, behavior and choice.

Papers may draw on theory across disciplines, as appropriate for the problem addressed, and use statistical, modeling or experimental methodologies. The department particularly welcomes papers that exploit large, granular data sets and leverage the emerging field of data analytics.

Criteria for publication are (i) the paper's potential for practical impact, (ii) the strength of its analysis and evidence, and (iii) the originality of its main insight. The department prefers short and focused papers. The submission cover letter must include a brief nontechnical executive summary for senior healthcare leaders,

explaining the paper's main insight and its practical implication (maximum 200 words).

Information Systems

Anandhi Bharadwaj, Emory University
Chris Forman, Cornell University

Digital technologies have become an important agent of change in the economy with transformative implications at the individual, organizational, societal, and macroeconomic levels. Accordingly, the objective of the Information Systems Department is to publish groundbreaking and distinctive research that addresses the design, adoption, use, and the impacts of all forms of digital technologies (broadly defined) with clear managerial and theoretical implications.

Research submitted to the Information Systems Department may draw on a wide variety of disciplines, including economics, mathematics, psychology, sociology, computer science, and statistics. Research methods may include economic modeling; operations research modeling; experiments; and analyses of archival, survey, or field data. We are also interested in the development of predictive analytics that clearly combine a methodological advance with an important and novel managerial application. Regardless of reference discipline or research method, all research published must meet a high standard of rigor and credibility, and the results should be of broad interest to management scholars and represent an advance in the frontier of knowledge.

Marketing

Eric Anderson, Northwestern University
Matthew Shum, California Institute of Technology
Juanjuan Zhang, Massachusetts Institute of Technology

The Marketing Department seeks to publish papers that address both substantive and theoretical marketing issues. We are very interested in current topics, such as consumer search, mobile marketing, and digital marketing, as well as core marketing issues such as marketing strategy, product line management, new product development and launch, design and management of distribution channels, sales-force management, pricing, advertising, promotions, buyer behavior, and demand estimation. Because of the journal's cross-functional readership, the Marketing Department particularly welcomes interdisciplinary work on the interface between marketing and other functional areas.

We are open to a diverse set of methodologies and paradigms including surveys, experiments, econometric and statistical data analyses, structural econometric models, analytical models, machine learning

tools and algorithms, and applications. While we are open to a broad set of methodologies, we look for manuscripts that apply the chosen methodology rigorously.

The best manuscripts address problems that are both important and faced by a broad segment of marketing practitioners. Furthermore, they make an original and significant contribution to the marketing literature. A theoretical manuscript should add to our understanding of consumers and firms, but also have clear relevance to marketing practice. A methodological manuscript should provide new methods leading to superior actions relative to existing methods. An empirical manuscript should provide either new empirical generalizations or new insights that can improve marketing practice. An applications-oriented manuscript should describe implementation of leading-edge methods or models that can have significant managerial consequences.

Operations Management

Charles Corbett, University of California, Los Angeles
Vishal Gaur, Cornell University
Victor Martínez de Albéniz, University of Navarra
Jayashankar Swaminathan, University of North Carolina at Chapel Hill

The Operations Management Department publishes research in established areas of operations management such as inventory management, process design and improvement, production planning, quality management, service operations, supply chain management, and workforce staffing. The department seeks to promote research on emerging topics such as additive manufacturing, automation, digital technologies, e-commerce, emerging country operations, homeland security, humanitarian operations, innovative business models, self-guided vehicles, the shared economy, and sustainable and responsible operations. Research papers could address operational questions from diverse perspectives, such as those of line workers, operations managers, C-suite executives, third-party providers, or policy makers. We encourage studies related to private and public sectors, as well as industry-specific research.

The department encourages all types of research methodologies: analytical, empirical, and behavioral. Successful analytical papers will use sound modeling techniques or creative algorithms drawn from the fields of mathematical optimization, stochastic processes, statistics, simulation, and game theory. In empirical research, the range of methodologies and data sets has been expanding rapidly. A successful empirical paper will have an appropriate research design, use

sound statistical analysis, and relate its research questions and methods to operations management theory of interest. A successful behavioral operations paper will have theory and experiments or field-based research drawing on operations management and applications of behavioral economics and decision analysis in operations. Rigorous execution is necessary, but is not sufficient for publication. Research papers should seek to provide substantive academic contributions and practically relevant insights and algorithms. Ideally, authors should aspire to validate the models, the insights, and the algorithms. Independent of its methodology, we expect manuscripts to be of interest to a broad audience in operations management and, ideally, beyond. Specifically, the contribution of a manuscript will be evaluated based not on how the results were obtained, but on whether it delivers novel and relevant insights to theory and practice or solves important operational problems.

The department also welcomes interdisciplinary research that spans operations management and another department of *Management Science*. Those manuscripts would be judged based on their contributions to the field of operations management. For example, a paper on healthcare operations would be expected to have a significant operations relevance and implication for it to be considered by the department.

The department also encourages Fast Track submissions; see the editor-in-chief's January 2018 "From the Editor" statement for more information on that format.

Optimization

Chung Piaw Teo, National University of Singapore

The Optimization Department seeks contributions on all aspects of optimization and its applications, especially papers that bridge the gap between different fields and connect the dots to bring new tools and perspectives to bear on classical problems. All accepted papers are therefore expected to score high in at least one of the following questions: (i) How realistic and significant is the application studied? (ii) How original/creative is the approach adopted? (iii) How original/creative is the optimization methodology? (iv) How significant is the impact in practice?

As in all other major optimization journals, a nonexclusive list of methodologies that the department covers is as follows: convex optimization (including linear optimization); general-purpose nonlinear optimization; discrete optimization (combinatorial, integer, and mixed-integer programming); optimization under uncertainty (dynamic programming, stochastic programming, robust optimization, simulation-based optimization); infinite-dimensional optimization; online optimization; equilibrium problems and game theory.

Especially welcome are contributions studying new and significant applications of optimization methods

in important fields such as business analytics, data-driven optimization, automation, artificial intelligence in supply chain and manufacturing, Internet economy and financial technology, to name a few. Accepted papers should seek to provide substantive academic contributions and practically relevant insights and algorithms. Importantly, authors should aspire to validate the models, the insights, and the algorithms.

Authors are expected to write succinctly, with a clear articulation of their contributions and main results so as to address a broad audience of scholars interested in optimization methods and applications.

The department will also consider fast track publication of shorter papers with high-quality, original high-impact research that is of broader interest. Papers in this track will ask and answer original questions by rigorous but simple methods. Traditional technical notes, with a limited focus and narrow appeal, will not be considered for this track.

Organizations

Greta Hsu, University of California, Davis

Olav Sorenson, Yale University

The Organizations Department welcomes submissions relevant to the internal operations and organization of firms. Papers of interest would include those that examine the dynamics of groups and teams, those that elaborate the importance of formal and informal structures within firms, as well as those that study the ways in which organizations draw on and respond to their environments, such as through hiring processes. We welcome a broad range of methodological approaches and theoretical perspectives and particularly appreciate papers that connect multiple approaches or perspectives.

Manuscripts will be assessed in terms of the extent to which they (i) are of broad interest to the community of management scholars, (ii) advance our theoretical or empirical understanding of organizations, (iii) exhibit high standards of rigor, and (iv) have useful implications for decisions being made by practitioners. Advances to our understanding of organizations might come from identifying novel mechanisms or processes, resolving theoretical or empirical puzzles, or using novel data, methods, or research designs to adjudicate between competing perspectives or to challenge established beliefs. Rigor implies that manuscripts should have applied their methods according to best practices and that alternative explanations or interpretations of the results should have been carefully considered. Manuscripts should also explicitly consider the

relevance of their results to the decisions being made by managers or policy makers.

Revenue Management and Market Analytics

Kalyan Talluri, Imperial College London

Gabriel Weintraub, Stanford University

Revenue management has traditionally been concerned with managing scarce capacity by using pricing mechanisms and demand management as an operational tool. The practice of revenue management is taking hold in many industries and takes various forms: capacity allocation controls, dynamic pricing, dynamic bundling, bargaining and negotiated pricing, customized pricing, assortment optimization, auctions, and so on. Initially applied to industries such as airlines, hotels, and rentals, today we also see such practices in e-commerce, taxis, energy, railways, and road pricing.

The rise of platforms is another new phenomenon. Recent trends point to an unprecedented level of control over the design, implementation, and operation of markets: more than ever before, we are able to engineer the platforms governing transactions among market participants. As a consequence, market operators or platforms can control a host of variables such as pricing, liquidity, visibility, information revelation, terms of trade, and transaction fees. Given these variables, market participants often face complex problems when optimizing their own decisions. Operational study of these platforms and their design is still in their infancy and we encourage submissions studying these markets, both from the perspective of the market operator and the market participants.

We seek well-written papers that are connected to reality, improve our understanding of the application domain at-hand, and ideally have the potential to be implemented. We look for a mix of approaches, including modeling, theoretical, empirical, or computational. The paper should score high on most of the following criteria: (1) How realistic and significant is the application studied? (2) How original/creative is the approach adopted? (3) How significant would be its impact on practice?

Stochastic Models and Simulation

Baris Ata, University of Chicago

The Stochastic Models and Simulation Department seeks to publish work that contributes to the modeling, analysis, or simulation of stochastic systems, broadly construed, through advances in methodology and/or application. These advances may stem from the development of new methods and models and/or creative applications of existing ones. The department seeks to attract papers that contribute to the science or practice of management through stochastic modeling.

In terms of methodological areas, the department is interested in a broad range of topics that pertain to the management of stochastic systems and more broadly address decision making under uncertainty. Examples of relevant problem areas include manufacturing, inventory and production management, delivery of healthcare services, service operations, revenue management, financial engineering, and information services. Methodological contributions to these areas may take the form of novel analytical, computational, simulation-based, or statistical methods. The department is also interested in contributions that emphasize new applications of stochastic methods. We are particularly eager to attract papers in emerging application areas with a strong stochastic modeling content, for example, sharing economy markets, management of online matching platforms, socially responsible operations. Furthermore, we welcome papers that focus on the synergies between traditional operations research methods and adjacent fields, such as statistics, economics and public policy, and their implications on the design and analysis of stochastic systems.

The department places particular emphasis on the originality and breadth of the approach as well as the quality of the results. Ideally these should transcend the specifics of the motivating problem but at the same time should remain grounded and avoid focusing on abstract theory per se. Although rigor plays an important role in assessing submissions, it is by no means sufficient, and a greater premium is placed on the novelty of the problem being studied and its overall importance and value to the management science community.