



## Management Science

### MANAGEMENT SCIENCE



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## From the Editor

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## From the Editor

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The introduction of a new editorial board is a unique opportunity to evaluate the reputation, stature, and health of the journal. It is also an opportunity to examine its mission, scope and coverage areas, the types of papers submitted and published, as well as the level of satisfaction of authors and readers. Indeed, this is the time to identify what works well, what needs to be improved, and what requires significant change in direction and emphasis. Similarly, it is an opportunity to reflect on changes in the profession and society that should influence the journal. This is exactly the objective of my editorial.

To help in this process, I reviewed the results of an online survey of subscribers to *Management Science* conducted by INFORMS, and I complemented this data with interviews and discussions with numerous people in academia and industry. The message I received is clear: *Management Science*, one of the two flagship journals of our profession, has an outstanding reputation with high impact factor, short review cycle time, and a large volume of papers submitted and published in the journal.

Nevertheless, important opportunities and challenges exist.

- **New research areas.** Increased computing power and the explosion of data are changing the way organizations capture data, analyze information, and make decisions. These changes provide opportunities for our community to analyze extensive data and identify new models that drive decisions and actions. In many cases, these models bring together machine learning and deterministic or stochastic optimization methods to suggest new insights and actions. But, with the emergence of big data and analytics, other disciplines, e.g., computer science and marketing, are tapping into the promise of this opportunity and compete with our journals on the best and most innovative papers. A second emerging area of research is Revenue Management and Marketplace Analytics. Research in revenue management has expanded from traditional industries

such as airlines and hotels to a variety of new industries and, more recently, has been applied to emerging (online) marketplaces and platforms. Indeed, marketplace analytics, capturing models associated with the shared economy or those associated with personalization and customization of advertisement, to name a few examples, provide exciting research opportunities that have attracted many in our community. Finally, healthcare is taking a central role in our community, emphasizing innovative applications of our collective set of techniques to improve healthcare policy, operations, and treatment. Thus, the scope of *Management Science* must be broad enough to serve as the leading journal in the field, providing an outlet that builds on traditional research and allows for quick dissemination of the new, big ideas and high impact papers.

- **Papers should be relevant to the INFORMS community.** Indeed, the data I received from INFORMS suggests that in certain areas, e.g., Accounting, Behavioral Economics, Entrepreneurship and Innovation, Finance, and Judgment and Decision Making, most (in some cases, all) papers are published by people who are not members of our community and, upon closer inspection, I doubt many of these papers are of interest to our community. To be clear, I am not suggesting that we should not publish papers written by nonmembers, but what we have now is not healthy for our community. Indeed, in some of these areas there is significant research done by people in our community, but this research is rarely published in *Management Science*. This implies that a major shift is necessary to change the editorial structure so that papers published in *Management Science* represent a healthy mix of authors from our community and other disciplines and so that the papers published in *Management Science* can be judged and appreciated by our community.

- ***Management Science* should embrace diverse methodologies.** Undeniably, a major shift that *Management Science* took in the last decade in areas such as Operations Management was to move away from

methods associated with solving problems, i.e., operations research methods, to embracing and emphasizing economics, and more generally, social-science-based research. This shift had a tremendous impact on the type of research published, with less focus on algorithms and data and more focus on insight and strategic behavior. While this shift has been healthy, it has gone too far. That is, a flagship journal should represent the entire community and should be open to a variety of quantitative methodologies. Consequently, I believe there should be a healthy mix between social science and operations research approaches so that the journal is truly interdisciplinary, focusing on solving managerial problems and becoming more relevant to management practice.

- **Increase impact on practice.** With the recent emphasis of the journal on insights and strategic behavior, I do not believe—and this is consistent with the concern raised in the INFORMS online survey—that the journal is making an impact on practice. I suggest that there is a need to change direction so that publications in *Management Science* are not only important for hiring, tenure and promotion decisions, but are also making an impact on management practice.

To explore the new opportunities and to overcome existing challenges while maintaining the journal's reputation and stature as a flagship journal of INFORMS, the board is implementing a few departmental structural changes and new initiatives. The new departmental structure and initiatives all imply a change in direction so that the journal better serves and promotes research conducted by the entire INFORMS community and is true to its name, a journal dedicated to the science of management, with the ability to impact practice and the ability to serve as the top outlet for new big-idea, high-impact papers.

## Editorial Mission

As INFORMS' flagship journal focusing on the practice and science of management, papers published in *Management Science* should adhere to the following guidelines:

- They should deal with issues and problems important to managers and executives.
- They must be interesting to a wide range of people in our community.
- They should have the potential to impact management practice.

Because *Management Science* is focused on the practice of management, authors should attempt to validate the model, the insights, and the algorithms described in their papers. While not every scientific research on the practice of management needs to or can be validated, the aspiration to make an impact on practice highlights the importance of validation, when possible,

through field implementation, laboratory experimentation or simulation, and scenario analysis, to name a few examples.

Similarly, papers published in *Management Science* should attempt to include behavioral data since we analyze systems that involve people and hence we need more realistic models that capture human behavior. While not every paper in *Management Science* can or should include behavioral data, those that do will foster the development of new scientific methods that explain, predict, and hopefully help change behavior.

Of course, being a flagship journal of INFORMS implies that *Management Science* is (or should be) the most important outlet for papers in a specific field or department. This is true for example in departments such as Operations Management or Information Systems but, unfortunately, this is not the case for all the journal's departments. This situation is not appropriate for a flagship journal! Indeed, the initiatives described in this document are designed, in part, to make sure that every department either maintain its leadership position as the best outlet for papers in the field or is shaped in a way that makes it the flagship outlet for some important papers in the area.

Ultimately the Editorial Board is responsible for the journal's ability to achieve its mission and, in particular, to test whether a specific paper has the "potential to impact management practice." I am pleased to report that *Management Science* has an editorial board consisting of world-class researchers who have significant practical experience and broad vision.

## Department Structure

From my perspective as the editor, the call for structural changes in the Editorial Board is driven by the responsibility associated with being a flagship journal of INFORMS. This observation has important implications. First, it requires that every department covered by the journal must be viewed as the top outlet for papers in that area. Second, it demands that *Management Science* publishes papers that are of interest to a wide range of audience in our community. And last, it entails that the editorial structure will emphasize and capture recent technology and management trends.

For these reasons, I am implementing the following changes in *Management Science*:

1. The departments of Behavioral Economics, and Judgment and Decision Making have been eliminated. Papers submitted to these areas come almost exclusively from outside our community. At the same time, the editorial board is expanding the scope of the department of Decision Analysis so that it also covers Behavioral Economics and Judgment and Decision Making papers that are relevant to the science of management and meet the rigor standards of the journal.

2. The departments of Finance, and Entrepreneurship and Innovation are refocused so they publish more papers of interest to our community. More on this will be provided in the Department Editors' statements.

3. Because of its importance to business and long history with the journal, the editorial board will maintain the current structure and focus of the Accounting department.

4. The Editorial Board is introducing three new departments: Big Data Analytics, Revenue Management and Marketplace Analytics, and Healthcare Management.

To summarize, the journal now has the following 14 departments:

- Accounting
- Big Data Analytics
- Business Strategy
- Decision Analysis
- Entrepreneurship and Innovation
- Finance
- Healthcare Management
- Information Systems
- Marketing
- Operations Management
- Optimization
- Organizations
- Revenue Management and Marketplace Analytics
- Stochastic Models and Simulation

Taken together, these areas represent all aspects of management, including strategy, entrepreneurship, innovation, information technology, and organizations, as well as all functional areas of business, such as accounting, finance, marketing, and operations.

## Fast Track Publications

In addition to publishing papers that follow the traditional journal process, *Management Science* will also consider shorter papers with high-quality, original, and 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. Such papers should be no more than 5,000 words (including references and anything else not provided in a separate supplementary appendix). These papers will undergo faster review, with initial decisions being returned to the authors within no more than 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 two weeks. Papers accepted through this track will be made available in "Articles in Advance" within weeks after acceptance, and will be labeled as "Fast Track" articles in the journal.<sup>1</sup>

Two examples of past *Management Science* papers that if shorten illustrate the editorial board vision for Fast Track papers include the early papers on the "bull-whip effect" (see Lee et al. 1997) or on process flexibility (see Jordan and Graves 1995).

Of course, the motivation for this track is the need to be aggressive and attractive in emerging areas so that the journal serves as a platform for the most innovative and impactful papers and is able to disseminate them in a timely manner.

The previous OM Department Editors of *Management Science* implemented the Fast Track policy and the response we received from senior people in the field was highly supportive. The new editorial board is now implementing the Fast Track publication across the entire journal.

Fast Track or no Fast Track, the challenge is to identify these big-idea, big-impact articles. These are the papers that motivate new lines of research and are extended or built upon by others. Typically, these are highly cited papers, but often their importance and impact is recognized only a few years after publication. For this purpose, I offer the editorial board the following guidelines: take risk when necessary and be flexible when appropriate. That is, I prefer the editorial board identify, encourage, and help papers that have potential to make a big impact on the field, rather than reject papers prematurely. This implies that the role of the editorial board is not only to control the process, but most importantly, to look for papers that make important contributions to the practice and science of management.

## Encourage New Areas of Study

I believe the field and the journal have the opportunity to significantly impact new areas that have not traditionally been explored. I already highlighted some of the areas of research where the board is establishing new departments: Big Data Analytics, Revenue Management and Marketplace Analytics, and Healthcare Management. Other areas that can attract the attention of academia, industry, and government, and where the journal can play an important role include the following:

- Risk management strategies associated with emerging business challenges such as counterfeits or cybersecurity;
- New business models driven by data, analytics and automation;
- The impact of emerging technologies such as Blockchain and the Internet of Things (IoT) on the management of operations and supply chain;
- New research opportunities associated with global and societal challenges such as climate change, food and energy security, humanitarian efforts, and income inequality.

Of course, the challenge is to provide a vehicle that helps attract new research areas. For this purpose, I am planning two activities:

1. *Publish special issues and surveys* that will serve as a source for defining and highlighting the state-of-the-art in emerging areas;
2. *Develop a Web-based discussion forum* that will feature an important paper and facilitate comments from readers of the journal.

### Outreach Efforts Outside Academia

The goal of the outreach efforts is twofold:

1. Motivate analytics and operations research professionals from government, industry, and more specifically research labs, e.g., Amazon, Facebook, Google, IBM, and Microsoft, to submit their best work associated with the science of management to the appropriate areas of the journal. In particular, exciting opportunities exist in the new departments: Big Data Analytics, and Revenue Management and Marketplace Analytics. For this purpose, I have invited a few leading researchers from industry to serve on the editorial board. Of course, this initiative is designed to motivate them and their colleagues to consider *Management Science* as an outlet for publication.
2. Reach outside the INFORMS community to the general public so that decision makers in government and industry are exposed to some of the most exciting work published by the journal. The challenge is to

translate scientific research to the general public in a way that is meaningful and insightful for that audience. More on this in the near future.

### Final Words

*Management Science* has an outstanding reputation due to the work of many people, but above all, former Editor-in-Chief Teck-Hua Ho and the Editors-in-Chief who preceded him. I am honored to follow in their footsteps and build on what has already been achieved through hard work and commitment to the journal. The initiatives described in this document suggest an important change in direction to help the journal better serve our community and management practice.<sup>2</sup>

### Endnotes

<sup>1</sup> This idea and the paragraph are from the recent *Management Science* Operations Management department statement (November 2017) where I served as a Department Editor together with others.

<sup>2</sup> Some paragraphs in this document, describing my management philosophy, are from my *Operations Research* 2006 editorial statement (Simchi-Levi 2006).

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