Management Science

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

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To cite this article:
David Simchi-Levi (2022) From the Editor—January 2023. Management Science

Published online in Articles in Advance 14 Dec 2022

. https://doi.org/10.1287/mnsc.2022.4644

https://pubsonline.informs.org/journal/mnsc

MANAGEMENT SCIENCE
Articles in Advance, pp. 1–6
ISSN 0025-1909 (print), ISSN 1526-5501 (online)

From the Editor—January 2023

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Published Online in Articles in Advance:
December 14, 2022

https://doi.org/10.1287/mnsc.2022.4644

1. Introduction

With the economic and supply chain challenges in full swing, I am continuously inspired by the *Management Science* community's ability to drive innovations to help tackle today's and future societal problems. Indeed, every issue of the journal brings to the forefront new possibilities and opportunities to help understand and improve individual, business, public sector, or societal decision-making processes.

Although life has changed over the last few years in some unexpected ways, *Management Science*, both the journal and the community, has emerged stronger and more influential. My objective in this editorial is to reflect on the developments of the last few years and the state and the stature of the journal.

2. Statistics and Analysis

Following is my review of the various *Management Science* statistics.

2.1. Submission Volume

The number of new submissions in 2022, including both Regular and Fast Track papers, is expected to be slightly below that of last year and is projected to be around 4,050 submissions this year (Figure 1).

A few observations:

- The largest departments in terms of submission volume include Finance, Behavioral Economic and Decision Analysis, Operations Management, and Accounting.
- When reviewing submission volume in Operations Management, we recognize that the introduction of the three new departments—Data Science, Healthcare Management, and Revenue Management and Market Analytics—cannibalizes submission volume that in the past would have been submitted mostly to the Operations Management department. Looking at the data from this point of view, one observes that the total number of submissions across the four departments (Operations Management plus the three new departments) represents about 16% of the total submission volume to *Management Science*.
- Significant submission volume for Fast Track papers. However, in 2022, we are facing a slight decrease relative to 2021. One possible explanation is that other journals (*Operations Research, Manufacturing & Service Operations Management*) recently introduced similar submission channels.

2.2. Review Cycle Time

Management Science continues to maintain an outstanding cycle time. Indeed, the median time for first decision for regular and fast track papers sent to reviewers (i.e., not including desk reject papers by department or associate editors) is 81 days, whereas the time to final decision is 112 days. These are significantly shorter response times than similar statistics just a few years ago.

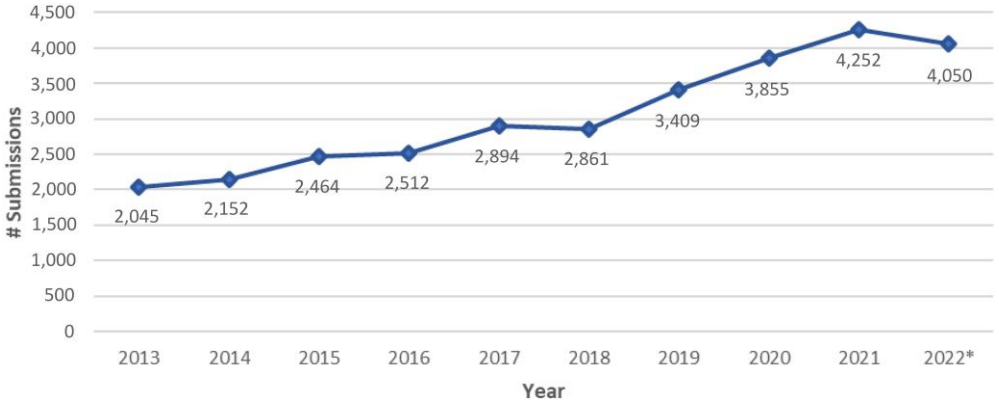
The average time for first decision across all regular papers submitted is 63 days. The data suggest that Fast Track delivers on its commitment to provide authors with a faster review, with initial decisions returned to most authors in less than 30 days.

2.3. Acceptance Rate

Management Science's acceptance rate this year across all submissions (Regular and Fast Track) is about 13.5%, which is slightly above the acceptance rate in the last few years (Table 1). This acceptance rate is not uniform across all departments, with some departments, for example, Organizations, having a lower acceptance rate, whereas other departments, for example, Operations Management, having a higher acceptance rate.

In addition, the bar is significantly higher for Fast Track papers; as a result, the acceptance rate for this submission process is around 7.3%, which is significantly lower than that of Regular papers.

Figure 1. Original Submissions: Regular and Fast Track Papers



2.4. Interest in Papers Published in *Management Science* is Growing

Interest in papers published by *Management Science* has increased dramatically; the number of papers downloaded in the first nine months of the year (2022) more than doubled relative to the same period last year and it exceeds 1.2M downloads (Figure 2).

This may be motivated, in part, by the 2022 Economic Report of the US President. The report, published in April 2022, "presents an overview of the nation's economic progress and makes the case for the Administration's economic policy priorities."

I was delighted to discover that the report cites three papers published by *Management Science*.

Kesavan S, Lambert S, Williams J, Pendem P (2022) "Doing Well by Doing Good: Improving Store Performance with Responsible Scheduling Practices at the Gap, Inc." *Management Science*, 68(11). In this paper, the authors estimate the impact of responsible—consistent and predictable—scheduling practices on store financial performance at the U.S. retailer The Gap, Inc. The analyses indicate that implementing responsible scheduling practices increased store productivity by 5.1%, driven by increase in sales (by 3.3%) and decrease in labor (by 1.8%).

Lipsitz M, Starr E (2022) "Low-Wage Workers and the Enforceability of Noncompete Agreements." *Management Science* 68(1):143–170. The study exploits the 2008 Oregon ban on noncompete agreements for hourly paid workers to provide the first evidence of its impact on low-wage workers. The authors find that banning noncompete agreements for hourly workers increased hourly wages by 2%–3% on average.

Fuchs E, Kirchain R (2010) "Design for Location? The Impact of Manufacturing Offshore on Technology Competitiveness in the Optoelectronics Industry." *Management Science* 56(12):2323–2349. The paper presents a case study of the impact of manufacturing offshore on technology competitiveness in the optoelectronics industry. Using the case study, the authors show that manufacturing location influences the relative production economics of competing technologies.

I was also thrilled to find that the U.S. President Economic report refers to supply chain resiliency concepts developed by INFORMS members, including supply chain stress tests, time-to-recover and time-to-survive, and cites two papers in this area written by members of our community: Simchi-Levi (2020) and Simchi-Levi and Simchi-Levi (2020).

2.5. Ranking and Impact Factor

Management Science has been and continues to be one of the most prestigious journals in the field. The journal's two-year and five-year impact factors have both increased significantly, as shown in Figures 3 and 4. Specifically, whereas the two-year impact factor was 4.883 in 2020, it is 6.172 in 2021. Similarly, the five-year impact factor increased from 6.619 in 2020 to 7.772 in 2021.

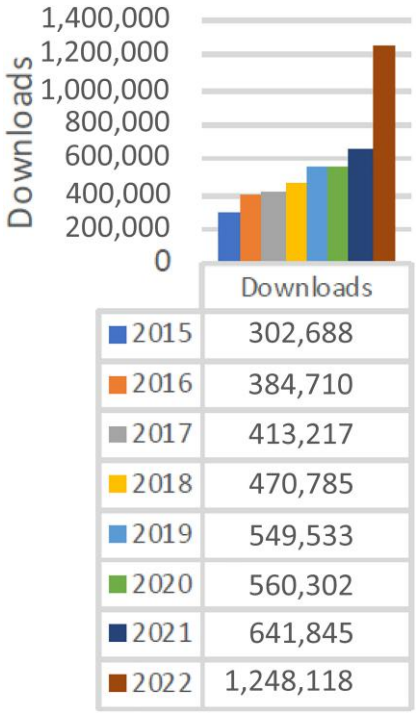
Improvements are also observed by looking at the 2022 Google Scholar Metrics. Indeed, *Management Science*'s h5 index has increased from 103 last year to

Table 1. Acceptance Rate Based on Manuscripts with Decisions in a Specific Year

Manuscripts with final decision 2022 through Q3	2013	2014	2015	2016	2018	2019	2020	2021	2022
Accept	185	235	276	282	252	289	405	393	349
Reject	1,787	1,824	2,030	2,164	2,346	2,547	2,934	3,279	2,240
Total	1,972	2,059	2,306	2,446	2,598	2,836	3,339	3,672	2,589
Overall acceptance rate	9.4%	11.4%	12.0%	11.5%	9.7%	10.2%	12.1%	10.7%	13.5%

Note. Data for 2022 are based on regular and fast track papers with reject/accept decisions between January 1, 2022, and September 30, 2022.

Figure 2. Number of Papers Downloaded in Q1–Q3 for a Given Year



	Downloads
2015	302,688
2016	384,710
2017	413,217
2018	470,785
2019	549,533
2020	560,302
2021	641,845
2022	1,248,118

109 this year, and the h5 median has increased from 145 to 165. These two metrics count citations for papers published in the last five complete calendar years. Importantly, *Management Science* is again ranked very high compared with all 24 journals on the University of Texas Dallas' Naveen Jindal School of Management List of Journals (Table 2).

2.6. Journal Backlog

A challenge faced by the journal is to control the time from acceptance to publication. When the new editorial board was appointed in January 2018, the backlog was 27 months. Collaborating closely with INFORMS, the backlog was continuously reduced, and it is currently about eight months (Figure 5). This is important because it affects authors' satisfaction and citation counts.

3. Updates on Major Initiatives

Here is a report on some of the major initiatives introduced by the journal.

3.1. Data and Code Disclosure Policy

In 2019, *Management Science* introduced a Data and Code Disclosure Policy (https://pubsonline.informs.org/page/mnsc/datapolicy), with the objective to assure the availability of the material necessary to replicate the research published in the journal. Early in 2020, the editorial board appointed a code and data editor whose responsibility is to ensure that accepted papers comply with the Data and Code Disclosure Policy and to verify the ability to replicate results published by the journal.

The code and data editor, Ben Greiner, and his team (Milos Fisar, Christoph Huber, and Ali Ozkes) started reviewing replication packages in April 2020. From April 2020 to October 2022, the code and data editorial team reviewed the replication materials of more than 400 accepted articles, with the number of affected articles increasing over time (because only articles submitted after June 1, 2019, fall under the policy).

3.1.1. Statistics About Reviewed Papers. The distribution of reviewed papers across departments reflects the relative size and data/code intensity in these departments (Figure 6, left). In terms of methodology, the right panel of Figure 6 shows that more than half of all papers in data/code review are papers working with empirical data sets (often obtained from commercial providers, but

Figure 3. *Management Science* Two-Year Impact Factor vs. Year

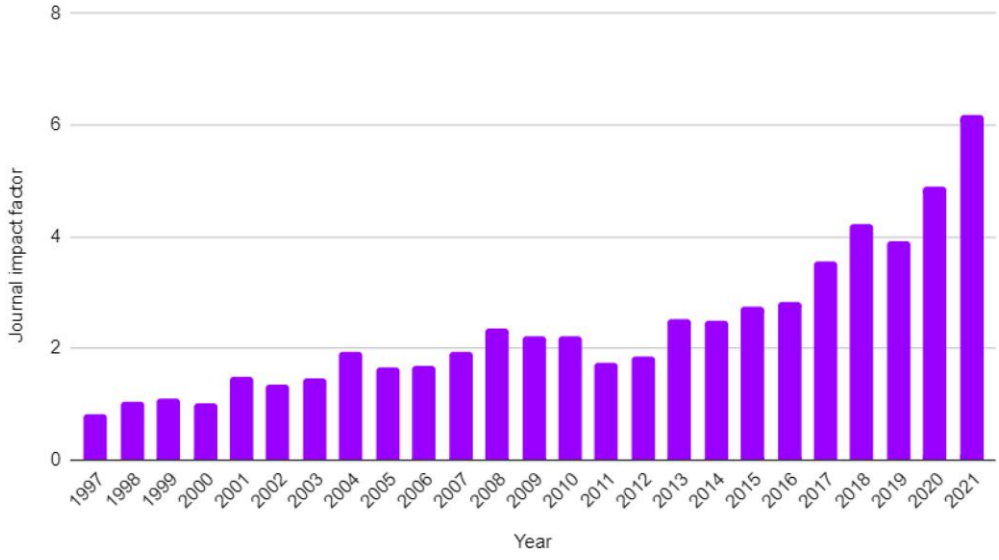
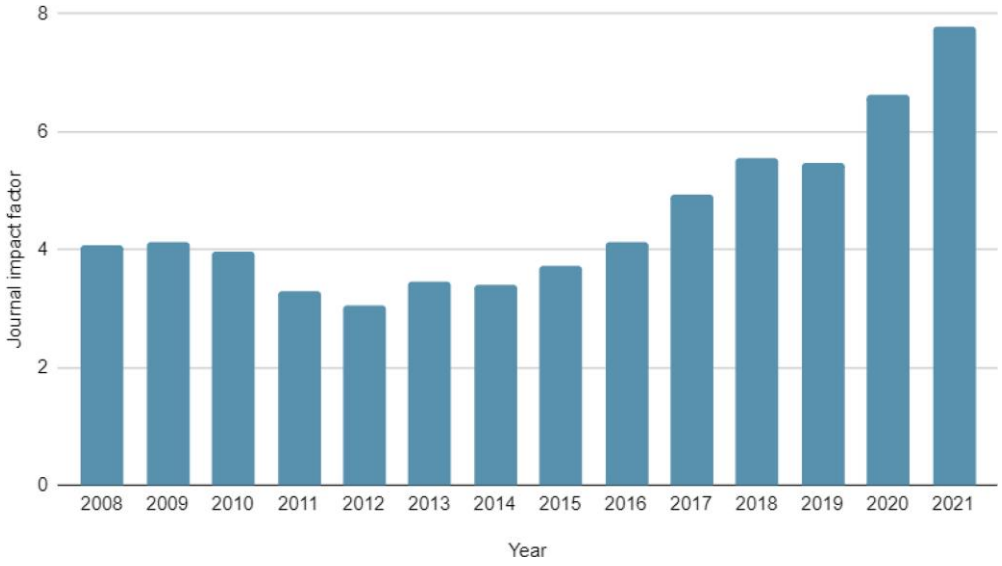


Figure 4. *Management Science* Five-Year Impact Factor vs. Year



partly also self-collected). About one fifth of the papers report results from laboratory, online, or field experiments; 3% are based on surveys; and 21% of papers mainly feature theoretical models, simulations, or computations. These latter papers often only include code but no data or use data only for simulation and/or demonstration purposes.

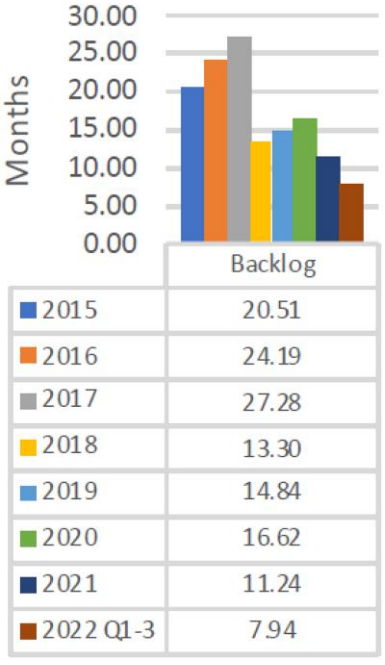
When considering all papers that work with data (i.e., excluding papers that are code-only), 52% of all eventual replication packages rely on proprietary data, 11% of the papers provide at least partial data, and 37% include all data necessary to replicate. Importantly, among those papers with proprietary data, 47% use data sets that are publicly accessible or require a subscription to services

Table 2. Google Scholar Metric for Journals on the UTD List

Journal	h5 index	h5 median
Journal of Financial Economics	120	197
The Review of Financial Studies	115	195
Management Science	**109**	**165**
Journal of Finance	103	171
Strategic Management Journal	92	147
Academy of Management Journal	87	134
Journal of International Business Studies	73	117
MIS Quarterly	70	113
Academy of Management Review	69	112
The Accounting Review	68	101
Journal of Consumer Research	66	116
Journal of Marketing	64	106
Journal of Accounting and Economics	57	97
Administrative Science Quarterly	56	102
Manufacturing and Service Operations Management	55	86
Journal of Marketing Research	54	88
Production and Operations Management	53	86
Organization Science	52	79
Journal of Accounting Research	51	94
Operations Research	51	76
Information Systems Research	50	81
Marketing Science	49	91
Journal of Operations Management	41	67
Journal on Computing	32	51

Source. Google Scholar Metrics, updated in June 2022 (https://scholar.google.com/citations?view_op=top_venues).

Figure 5. Issue Backlog



	Backlog
2015	20.51
2016	24.19
2017	27.28
2018	13.30
2019	14.84
2020	16.62
2021	11.24
2022 Q1-3	7.94

like WRDS or Compustat (25%), and 4% provide disguised data sets. About 23% of papers with proprietary data provide at least sample or synthetic data sets that allow them to rerun the code but without producing the exact same results as reported in the paper.

3.1.2. Statistics About the Review Process. For those accepted papers that fell under the code and data policy and thus underwent review, the data and code review stage took on average about 26 days, spending 11 days with the data editor and 14 days with authors (median numbers are 14, 7, and 3 days, respectively).

About 29% of submitted replication packages could be accepted without further revisions. About 53% of packages needed one revision, 15% went through two revisions, and 3% of packages required three rounds or more until the package was accepted.

Finally, about 6% of data and code reviews required authors to make changes in their paper. Because the review does not include comparing code output to the paper, in all cases, the authors detected these necessary changes themselves when reviewing their replication package. In all cases, these changes were minor, and the respective department editor was involved to confirm their acceptance decision in face of the changes.

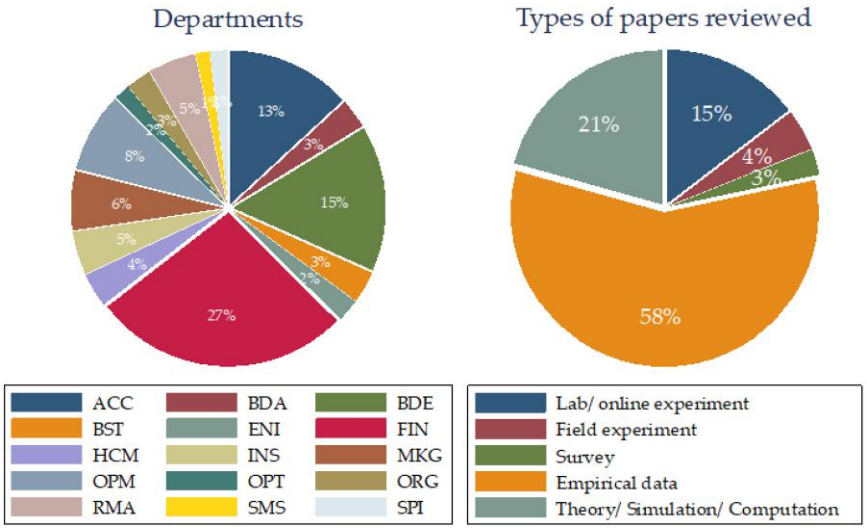
3.2. Replication Project

As you may recall, the editorial board initiated a replicability project with the objective to report replicability of laboratory experiments published by *Management Science*.

A team of eight academics with significant experience in behavioral operations committed to addressing the replicability challenge. The team includes members from five institutes with established labs, which allowed us to conduct each replication in multiple locations. The faculty involved include Andrew Davis, Cornell University; Blair Flicker, University of South Carolina; Kyle Hyndman and Elena Katok, The University of Texas at Dallas; Samantha Keppler and Stephen Leider, University of Michigan; and Xiaoyang Long and Jordan Tong, University of Wisconsin.

The team collected survey results from the community in which they asked participants to vote for the papers they would like to see replicated. The papers were in the following five areas: Inventory Management, Supply

Figure 6. Departments and of Papers in Data and Code Review: April 2020–October 2022



Chain Contracts, Queueing, Forecasting, and Sourcing. The team chose 2 papers with the highest number of votes from each category, for a total of 10 papers. Each paper was scheduled to be replicated at two different sites.

I am pleased to report that the results of the replication study are now available on https://msreplication.utdallas.edu. As you can see, of the 10 papers, 6 were completely replicated, 1 did not replicate at all, 2 were partially replicated (only one site was able to confirm the results), and 1 paper requires additional experiments.

3.3. New *Management Science* Reproducibility Project

You may remember that in my July 2022 editorial, I introduced a new challenge to the community as follows:

> "The editorial board would like to publish a paper, likely a Fast Track paper, that evaluates the impact of the Data and Code Disclosure policy by attempting to replicate a sample of the archived papers. We are looking for volunteers who will attempt to replicate papers and track their replication efforts and results."

I am pleased to report that the code and data editor, Ben Greiner, has teamed up with Elena Katok, department editor, Operations Management, and the code and data editorial team members Miloš Fišar, Christoph Huber, and Ali Ozkes to coordinate a large-scale *Management Science* Reproducibility Project (ManSciReP). The goal of the project is to assess the computational reproducibility of studies published in the journal. Since the introduction of the Data and Code Disclosure Policy in 2019 and the establishment of the role of a code and data editor in April 2020, the replication materials from about 450 accepted articles have been reviewed by the code and data editorial team. However, in their review, the code and data editor and his team only verify the provision of replication materials but do not attempt reproduction of the paper's results.

The ManSciReP project will aim to assess the reproducibility of a large sample of *Management Science* papers from both before and after the 2019 Data and Code Disclosure Policy took effect. We will invite *Management Science* reviewers and members of the larger *Management Science* community to volunteer to review an article from their own research field and to attempt to reproduce the main results reported in that article. Through a structured survey, reviewers then report back on the extent to which they were able to reproduce the tables, figures, and other main results in the manuscript, and what obstacles they experienced in this endeavor. Reviewers who submit a report will become coauthors of the final publication in the form of a consortium coauthorship as the "*Management Science* Reproducibility Collaboration."

4. Thanks

I hope you agree that the journal's state and stature is strong! Let this update serve as an opportunity to thank those who have helped in this long journey. I am grateful to Toni Riley, the managing editor, and the entire staff at INFORMS for the strong support the journal has been receiving. The changes and initiatives reported here would not have been possible without the support of INFORMS and the *Management Science* community.

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