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Advances in Decision Sciences

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Summary of Advances in Decision Sciences (ADS) - 2020

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Abstract

Decision Sciences is concerned with advancing knowledge and instruction in all areas related to decision making and scientific analysis in cognate disciplines in the Sciences and Social Sciences. This editorial note presents a summary of the 423 published papers in *Advances in Decision Sciences (ADS).* The journal was founded in 1997, and 2018 marked the 22nd Anniversary since inception. The purpose of the editorial note is to analyze the development of the 23 papers that have been published in *ADS* in 2020 in terms of the number of papers, number of pages, and mean length of papers.

1. Introduction

As discussed in McAleer (2019, 2020), Decision Sciences is concerned with advancing knowledge and instruction in all areas related to decision making and scientific analysis in cognate disciplines in the Sciences and Social Sciences. These related disciplines include several sub-discipline areas in Social Sciences and Business, Science and Engineering, Climate Change and Energy, Impact Measurement Metrics, and Health and Medical Science.

The disciplines in these five broad areas in Decisions Sciences are given below.

(1) Social Sciences and Business

(2) Science and Engineering

(3) Climate Change and Energy

(4) Impact Measurement Metrics

(5) Health and Medical Science

Advances in Decision Sciences (ADS) was established in 1997. The journal has always sought to publish innovative and original peer-reviewed research articles, as well as critical review articles, in all areas of decision sciences.

The scope of *ADS* is intentionally broad, with a fundamental emphasis on measurement, methods and methodologies, techniques and skills from a broad range of cognate disciplines that emphasize quantitative methods to achieve optimal decision making outcomes.

The 22nd Anniversary of the inception of *ADS* occurred in 2018, and *ADS* published a 22nd Anniversary special issue, denoted 22(A), as a single volume in 2018 (for further details, see Chang, McAleer and Wong (2018a, 2018b)).

ADS has published a total of 423 papers from 1997 to 2020, with this editorial note being included in the data for 2020.

The purpose of the editorial note is to analyze the development of the 423 papers that have been published *ADS* from 1997 to 2020 through the number of papers, number of pages, and mean length of papers. Section 1 has discussed the multidisciplinary nature of decision sciences, while Section 2 evaluates the descriptive statistics, and Section 3 provides a general discussion of future prospects.

2. Descriptive Statistics

For the period 1997-2020, Table 1 provides the descriptive statistics for *ADS* in terms of the number of papers, number of pages, and mean length of papers. Figures 1-3 provide a graphical representation of the number of papers, number of pages, and mean length of papers, respectively.

The number of papers has ranged from 3 to 42, with spikes in 2006 and 2012, at 40 and 42 papers, respectively. Omitting these two outliers, as well as 3 papers in 2017 when the previous publisher had decided to discontinue the journal, the range is from 7 (in 2015 and 2016) to 26 (in 2011). Excluding the two outliers in 2006 and 2012, it is clear that the number of published papers was reasonably steady from 1997 through to 2014,

with a reduction from 2015-2017. The numbers of papers in 2018, 2019, and 2020 are far greater than in each of 2015, 2016 and 2017, which can be seen in Figure 2.

Not surprisingly, the number of pages each year has a broadly similar pattern to the number of papers. The range is from 25 in 2017 to 697 in 2012 and 649 in 2020. The large outliers are in 2006, 2012, 2019, and 2020, while the small outliers are in 2015, 2016 and 2017. Excluding these outliers shows that the range is much smaller, from 125 in 2013 to 394 in 2011. The number of pages has been highly variable throughout the existence of *ADS* from 1997 to 2020, which can be seen in Figures 1 and 2.

The mean length of papers is the descriptive measure that has had the least variability throughout the life of the journal, with the exception of 2016-2020. The range is from 7.00 in 2016 to 29.05 in 2019. The same number of papers was published in 2019 as in 2015-2017 combined, and more pages have been published in 2019 and 2020 than in most of the previous years.

Excluding the large outliers in 2018-2020, and the two small outliers in 2016 and 2017, shows that the range is much smaller, from 10.42 in 2013 to 16.92 in 1998, which can be seen in Figure 3.

3. Discussion and Future Prospects

The significance of the number of pages per paper in 2018, 2019, and 2020 as outliers is that the ownership of *ADS* was transferred from the previous publisher to Asia University, Taiwan in early 2018 when the previous publisher decided to discontinue

the journal. Subsequently, a new and talented editorial team has been established (for further details, see https://iads.site/editorial-board/), which augurs well for the future of *ADS*.

As mentioned above, the discipline of decision sciences covers a broad spectrum of disciplines in the sciences and social sciences that are concerned with any aspects of optimal decision making. *ADS* is deeply concerned about publishing the best papers from any of these areas.

ADS will continue to encourage researchers, academics, scientists, social scientists, advanced students, practitioners, and other interested individuals to undertake research in all areas of decision sciences, and consider the journal as an outlet for their research.

This will also afford any interested contributors the opportunity to be well informed of the latest innovations in the analysis of optimal decision making through developments in all technical and cognate disciplines in the decision sciences.

References

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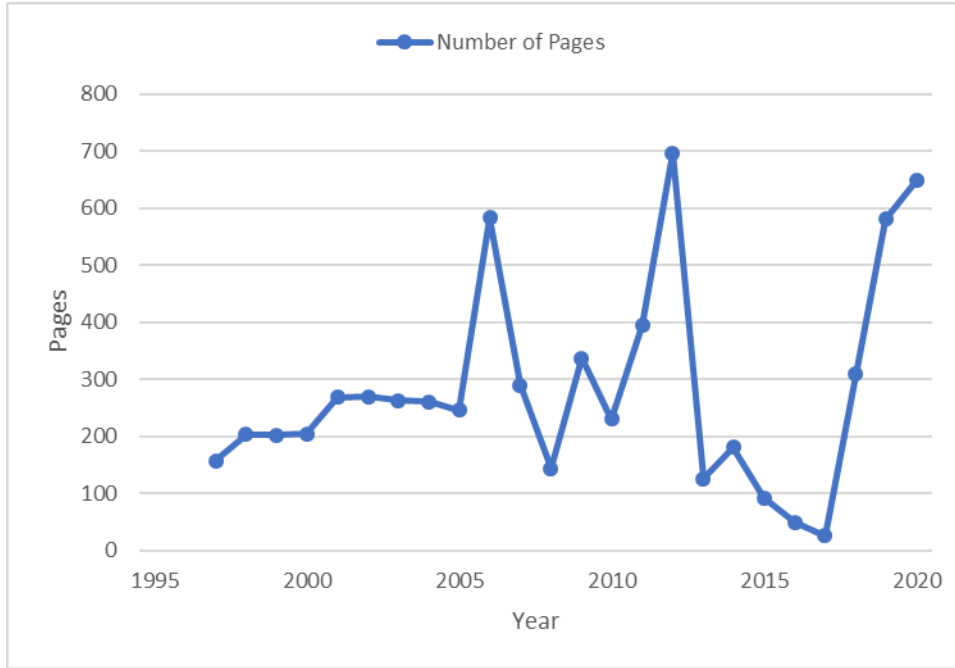https://iads.site/summary-of-advances-in-decision-sciences-ads-2019/

Table 1

Descriptive Statistics for ADS, 1997-2020

Year	Number of Papers	Number of Pages	Mean Length of Papers
1997	13	157	12.08
1998	12	203	16.92
1999	12	202	16.83
2000	15	204	13.60
2001	19	268	14.11
2002	18	269	14.94
2003	20	263	13.15
2004	16	260	16.25
2005	21	246	11.71
2006	40	583	14.58
2007	22	290	13.18
2008	10	143	14.30
2009	21	337	16.05
2010	14	230	16.43
2011	26	394	15.15
2012	42	697	16.60
2013	12	125	10.42
2014	17	181	10.65
2015	7	92	13.14
2016	7	49	7.00
2017	3	25	8.33
2018	13	309	23.77
2019	20	581	29.05
2020	23	649	28.22

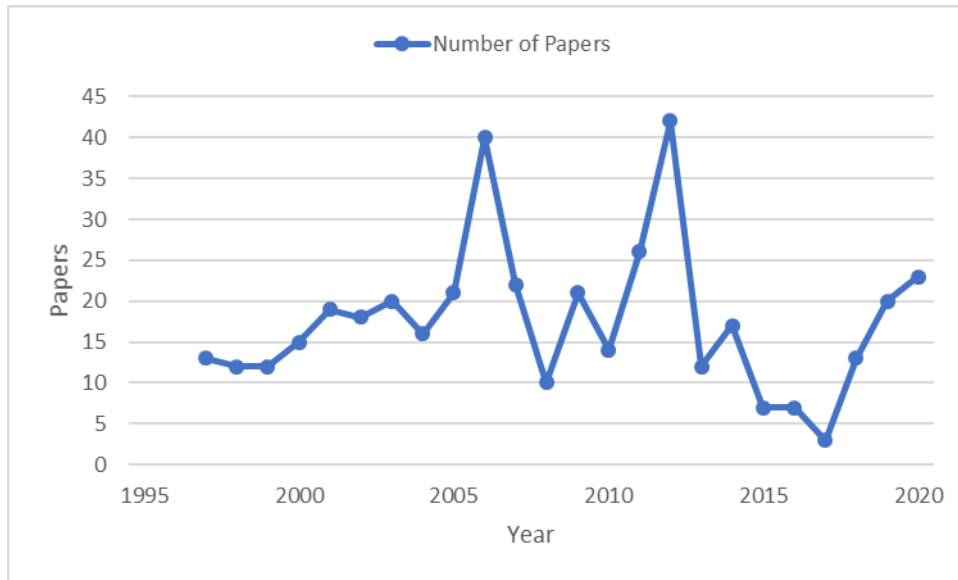**Note:** This editorial note is included in the data for 2020.

Figure 1

Number of Pages for ADS, 1997-2020

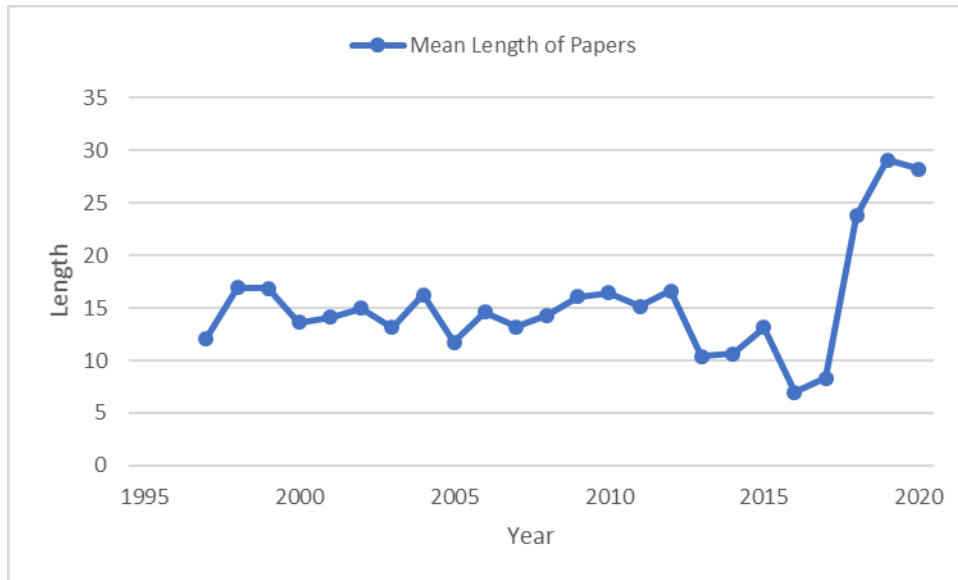**Note:** This editorial note is included in the data for 2020.

Figure 2

Number of Papers for ADS, 1997-2020

Note: This editorial note is included in the data for 2020.

Figure 3

Mean Length of Papers for ADS, 1997-2020

Note: This editorial note is included in the data for 2020.