Factor's Deciding Scientists' Choice for Publishing Papers in E-Journals: A Research Study of Aerospace Scientists and Engineers of Bangalore

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Abstract: Publications are the conduit or channel through which scientists communicate their findings with the rest of the world. Most importantly, the process of publication gives the scientist feedback on his or her work. The process of publishing a scientific paper constitutes a long process. Importantly, publications are vital to a scientist's career for two important reasons, firstly, when Universities or R&D Organizations are looking for new Scientists or Professors, they base their decision on the amount of important papers that he or she have published; and, secondly, research costs money, and the funding agencies or scientific organizations who give a scientist the money to do his or her research work greatly rely on their publications as a measure of how much they have accomplished with the money they've been given. It is also seen that, Publication is vital to science as a whole. One of the corner-stone of the scientific process itself is the free exchange of information. As long as everyone publishes their results, Science progresses forward: if someone publishes a new finding, other scientists can use that information to expand their own work and build upon the new findings, rather than every scientist having to do every experiment independently. Similarly, publication is essential for each scientist, because the review process gives the researcher a broader view of the work, and often suggests fruitful paths that the scientist may not have otherwise taken. Taking this publications process in its entire gamut, there are many factors that play an important role in a Scientists' or an Engineer's choice in publishing papers in journals, **[1].**

A research survey was undertaken to study the 'Factors Deciding Scientists' Choice for Publishing Papers in E-Journals'. The geographic boundary of this research study consists of 16 prominent aerospace organizations of Bangalore. The age-group of this study is between 21-60 years. The broad areas of specialization of the Aerospace Scientists and Engineers have been classified into (a) Thermal and Fluid Sciences, (b) Avionics, Guidance and Control, (c) Aerospace Structures and Allied Mechanical Sciences, (d) Materials and Metallurgy, (e) Flight Operations and other Allied Disciplines, and (f) General Engineering and Support Sciences. The major conclusions of this study are: (i) The χ^2 for 'Impact Factor' and the different types of aerospace organizations have significant association (Chi-Square=95.991, P = 0.000). Hence the percentage of preference for 'Impact Factor' and the different types aerospace organizations are not approximately the same [Not Uniformly Distributed], (ii) The χ^2 for 'Acceptance Criteria' and the different types of aerospace organizations have significant association (Chi-Square=76.536, P = 0.002). Hence the percentage of preference for the 'Acceptance Criteria' and the different type aerospace organizations are not approximately the same [Not Uniformly Distributed], (iii) The χ^2 test for 'Speed of Peer Review' and the different types of aerospace organizations have significant association (Chi-Square=81.694, P = 0.001). Hence the percentage of preference for the 'Speed of Peer Review' and the different type aerospace organizations are not approximately the same

[Not Uniformly Distributed], finally, (iv) The χ^2 for 'Online Submission Facility' and the different types of aerospace organizations have significant association (Chi-Square=67.961, P = 0.015). Hence the percentage of preference for the 'Online Submission Facility' and the different type aerospace organizations are not approximately the same [Not Uniformly Distributed]

1. Introduction

It is crucial that publication of research work is essential in order to advance science. It is also essential for people pursuing a scientific career. Their recognition as researchers depends on their publications and contributions to scientific progress. It is seen that, scientists live in a culture of "publish or perish". Researchers should learn not only how to write a scientific paper, but also how to get it published. Scientific journals have technical requirements, and authors should make themselves familiar with these requirements. Researchers deserve to have the credit for their work, but only if they have contributed intellectually to it. Ethical standards apply to scientific publication and should be observed by authors, and ensured by editors.

For the scientist himself, publication is a way that a scientist or engineer can communicate his findings with the rest of the world. The process of publication gives the scientist feedback on his or her work. Also, publishing brings in two additional gains to a scientists' career for two specific reasons, firstly, any researcher is valued on the amount of papers he has published, and secondly, publication itself is a measure of how much scientists' have accomplished with the funding they have been given. For the entire mankind, science progresses forward if everyone published their results. One of the cornerstones to scientific progress is the free exchange of information. Scientists can use the new finding published by others to expand their own work and build upon the new findings. Knowledge is the property of the entire mankind. Hence, knowledge must be integrated because in that way it becomes greater, open to comparisons, criticism and improvement. Also, it avoids unnecessary research of already known facts **[2].**

2. Need for Scientists to Publish their Research

Much has been said and written on the need for research scientists to publish their results. The reasons for not publishing may change during a scientist's career or may vary with each study and data set. All scientists must publish their work. The research was never really conducted if it is not published.

Scientific research is not complete until the results have been published. A scientific paper is an essential part of the research process. The writing of an accurate, understandable paper is just as important as the research itself. In other words, the words in the paper should be weighed as carefully as the reagents in the laboratory. Hence, it is important that the scientist must know how to use words. Therefore, the education of a scientist is not complete until the ability to publish has been established, **[3], [4].**

When scientists share their results via publications, they become part of the scientific community. They benefit from the exchange of ideas and learn about what others have already done. Scientists often can establish valuable collaborations with people on the other side of the planet. If all scientists kept their results and ideas secret, the progress of science would slow down to a crawl. If scientists want to benefit from the work others have done before their work, it's only fair that they contribute their bit too. The truth is, most of the 1.8 million (!!!) scientific papers published each year are fairly trivial in the grand scheme of things. However, the process of scientific publication creates a mindset that is vital for science to progress **[5].**

It is also seen that the usefulness of scientific knowledge is limited if that knowledge is not communicated to other people. Scientists often communicate their research results in three general ways. One is to publish their results in peer-reviewed journals that can be ready by other scientists. Two is to present their results at national and international conferences where other scientists can listen to presentations. Scientists also present their results to certain departments at universities. Third, scientists publish about their work in popular media, such as magazines, newspapers, and blogs.

The main ways that scientists communicate research results is by publishing the results in journals. Journals are archived and can be read by other people in the future. Some journals are peer-reviewed, meaning they only publish articles that pass a certain standard of quality -- peer-reviewed journals are usually for a specific audience, such as other scientists. Publications give scientists the most long-lasting and widespread audience. A recent movement in journal publishing is called open-access. Open-access journals no longer charge readers with subscription fees, meaning anyone with Internet access can read these journals.

The second most common way for scientists to communicate their research results is to present the results at various conferences. Conferences can range from dozen to tens of thousands of attendees. Conferences are places where scientists not only share their latest research findings, but also network with other scientists for the purposes of collaboration, or teamwork. They are also places where scientists share about research mysteries and get advice from each other about how to solve those problems. Conferences bring together scientists of all ages, allowing the younger scientists to connect with older, more established scientists.

Thirdly, scientists not only want to inform their colleagues about their latest results, but may also want to communicate new data to the public. Popular media outlets are read by more people than peer-reviewed journals, and provide a wider audience. Magazines, such as Scientific American, and National Geographic; newspapers, such as The New York Times; and television stations, such as CNN, provide much more exposure than a peer-reviewed journal. Scientists now also publish about their work on blog sites **[6].**

Hence, it is imperative that Scientists must share their findings in order for other researchers to expand and build upon their discoveries. Collaboration with other scientists—when planning, conducting, and analyzing results—are all important for scientific research.

2. Review of Literature

The authors mention that scholarly communication is an essential part of the scientific research process. Not only do scientists want to disseminate the results of their work to the public and their peers but they also need to ensure that their research findings are original. While the highlights of scientific discoveries are often described in mass media, the details of the research studies are largely reported through journal articles, which make up the bulk of scholarly publishing. The other model of scholarly communication and publishing is open access, which is "an alternative to the traditional subscription-based publishing model made possible by new digital technologies and networked communications" (Association of Research Libraries 2004). In the Open access system, full-text scientific papers are available online as soon as they are published, free of charge and most restrictions on access or use, **[7].**

The authors emphasize that scientists must publish. It is said that a good research work is not really finished until you have written and published it, so it is available to a larger audience. This is how science evolves. Results must be communicated and discussed with the rest of the scientific community to be validated or refuted. Moreover, they need to be shared with the rest of society because science should benefit us all. However, the authors point out that, useful research is often locked inside institutions, published as internal reports only. Other interesting results lie in libraries as thesis and monographs, out of the reach of the scientific community. In many cases, this knowledge takes too long come to light, if it is ever published as regular articles **[8].**

Before the internet, peer-reviewed journals and researchers had a happy symbiosis: scientists had no way of getting their best scientific results to the largest audience possible, and journals could perform that service while making a bit of profit. Now, that symbiosis has turned into parasitism: peer-reviewed journals actively prevent the best scientific results from being disseminated, siphoning off time and money that would be better spent doing other things. The funny thing is, somehow we've been convinced that this parasite is doing us a favor, and that we can't survive any other way, **[9].**

For many years, publishing the results of scientific research was a symbiotic interaction between researchers and publishers, because the most effective way scientists could disseminate their results was through journals, produced by professional societies and independent publishers. Today the electronic medium and electronic communication has opened up new ways to distribute such results and is forcing researchers and publishers to re-examine the old procedures and consider new possibilities as we unravel the mysteries of the Internet and learn to use it. Now, not only can authors easily disseminate their research results, but networked readers can have cheap and fast access to more scientific literature and that too, have it in a form that facilitates its use in their own research. Because the electronic medium offers many potential improvements to enhance traditional publication, scientists, administrators, and federal science policymakers must reconsider both as to how the results of publicly funded research are best disseminated and how that dissemination is best supported **[10].**

The authors make the underlying assumption that scientific information is an economic commodity, and that scientific journals are a medium for its dissemination and exchange. While this exchange system differs from a conventional market in many senses, including the nature of payments, it shares the goal of transferring the commodity (knowledge) from its producers (scientists) to its consumers (other scientists, administrators, physicians, patients, and funding agencies). The function of this system has major consequences. Idealists may be offended that research be compared to widgets, but realists will acknowledge that journals generate revenue; publications are critical in drug development and marketing and to attract venture capital; and publishing defines successful scientific careers **[11].**

The authors tested their hypotheses in a study based in the US across several disciplines and opine that growing competition and "publish or perish" culture in the academic environment might conflict with the objectivity and integrity of research, because it forces scientists to produce "publishable" results at all costs. They also emphasize that papers are less likely to be published and cited if they report "negative" results (results that fail to support the tested hypothesis). Therefore, if publication pressures increase scientific bias, the frequency of "positive" results in the literature should be higher in the more competitive and "productive" academic environments **[12].**

The authors discuss in detail in their book that, good scientific writing is not a matter of life and death; it is much more serious than that. They argue in saying that the goal of scientific research is publication. Scientists, starting as graduate students or even earlier, are measured primarily not by their dexterity in laboratory manipulations, not by their innate knowledge or either broad or narrow scientific subjects, and certainly not by their wit or charm; they are measured and become known (or remain unknown) by their publications, They further corroborate their study in saying that, a scientific experiment, no matter how spectacular the results, is not complete until the results are published. They emphasize that the cornerstone of philosophy of science is based on the fundamental assumption that original research must be published; only thus can new scientific knowledge be authenticated and then added to the existing database that we all call scientific knowledge, **[13].**

The author inter-alia quotes Robert Merton, **[14],** that good scientific practice includes the sharing of scientific results with others. Scientists have to contribute to the scientific stock of knowledge, since academic science is communal, **[15].** Also, according to Merton's norm of communalism, academic scientists have an obligation to publish their results. He also adds that the peer-review system plays an important part in the scientific endeavour. It confers reliability on scientific knowledge, because independent peers have tested it. He also adds that science rests on organized skepticism, **[16].**

5. CSIR-National Aerospace Laboratories, Bangalore and Allied Aerospace Organizations in Bangalore: The Scope of the Present Study

The National Aerospace Laboratories is India's premier civil aviation R&D aerospace research organization in the country. Its main mandate is the 'Development of aerospace technologies with a strong science content, design and build small and medium – sized civil aircraft, and support all national aerospace programmes. NAL is also required 'to use its aerospace technology base for general industrial applications'. 'Technology' would be its core engine-driver for the future. NAL is also best known for its main sophisticated aerospace R&D testing facilities which are not only unique for this country but also comparable to similar facilities elsewhere in the world.

Sixteen prominent aerospace organizations of Bangalore were selected for this research study (See Table 1), and many of these aerospace organizations come under the broad umbrella of (i) Council of Scientific and Industrial Research (CSIR), (ii) Defense Research and Development Organizations (DRDO), (iii) The Indian Air Force (IAF), (iv) Educational Institutions like IISc, and (v) Major public sector undertakings and (vi) The Department of Space. All of them in their own way have significantly contributed to a large number of Indian aerospace programmes.

6. Null Hypotheses

- There is no association between the 'Impact Factor' and its Percentage Criteria, viz. 100%, 75%, 50% and 25% and the 16 aerospace organizations.

- There is no association between the 'Acceptance Criteria' and its Percentage Criteria, viz. 100%, 75%, 50% and 25% and the 16 aerospace organizations.

- There is no association between the 'Speed of Peer Review' and its Percentage Criteria, viz. 100%, 75%, 50% and 25% and the 16 aerospace organizations.

- There is no association between the 'Online Submission Facility' and its Percentage Criteria, viz. 100%, 75%, 50% and 25% and the 16 aerospace organizations.

7. Objectives of the Study

- To determine whether there is significant association of 'Impact Factor', 'Acceptance Criteria', 'Speed of Peer Review' and 'Online Submission Facility' and its Percentage Criteria, viz. 100%, 75%, 50% and 25% among the aerospace scientists and engineers of Bangalore.

- To see whether the 'Impact Factor', 'Acceptance Criteria', 'Speed of Peer Review' and 'Online Submission Facility' as Scientists' Choice for Publishing Papers are uniformly distributed in the present study.

8. Materials and Methods

The present study is restricted to the selected 16 prominent aerospace organizations in Bangalore. A total number of 650 survey questionnaires were distributed amongst the aerospace scientists and engineers belonging to these 16 aerospace organizations. A total number of 612 questionnaires were received back finally 583 (89.7%) were selected for the study which were found suitable for the study. A survey questionnaire has been used to conduct this research study. The total population size of this research study is restricted to the 1220 aerospace scientists and engineers in Bangalore. The distribution of Source Data is indicated in *Table 1*. The investigator also divided the whole population of the study into two major categories: namely, aerospace scientists and engineers. It may be seen from *Table 2*, that out of 583 respondents, 295 (50.6%) are aerospace scientists and the remaining 288(49.4%) are aerospace engineers. A Sample Questionnaire Distribution Pattern used in the Survey is indicated in *Table 3.* And, finally, 'Factor's Deciding Scientists' Choice for Publishing Papers in E-Journals' is illustrated in *Table 4*, with the necessary statistical inferences. Random sampling technique has been used for selection of the sample size.

9. Results and Discussion

Summary of Total Scores for the Frequency of 'Factors Deciding Scientists' Choice for Publishing Papers in E-Journals'.

Impact Factor

It is seen that out of the 583 respondents amongst the 16 aerospace organizations, a total of 249 respondents have chosen 25% as the percentage criteria amounting to 42.7% of the total sample population. This is followed by 158 respondents who have opted for 75% as the factor percentage amounting to 27.1% of total sample population. 103 respondents amounting to 17.7% of the total sample population have chosen 100% as the percentage factor and finally 73 respondents have opted for 50% as the factor percentage amounting to 12.5% of the total sample population.

Acceptance Criteria

It is seen that out of the 583 respondents amongst the 16 aerospace organizations, a total of 227 respondents have chosen 25% as the percentage criteria amounting to 38.9% of the total sample population. This is followed by 210 respondents who have opted for 75% as the percentage criteria amounting to 36.0% of the total sample population. This is followed by 90 respondents who have opted for 50% as the percentage criteria aggregating 15.4% of the total sample population. Finally, 56 respondents have opted for 100% as the percentage criteria representing 9.6% of the total sample population.

Speed of Peer Review

It is seen that out of the 583 respondents amongst the 16 aerospace organizations, a total of 238 respondents have opted for 25% as the percentage criteria amounting to 40.8% of the total sample population. This is followed by 154 who have chosen 75% as the percentage criteria and aggregating 26.40 % of the total sample population. This is followed by 111 respondents who have chosen 50% as the percentage criteria representing 19.0% of the total sample population. Finally, 80 respondents have opted for 100% as the percentage criteria reflecting 13.70% of the total sample population.

Online Submission Facility

It is seen that out of the 583 respondents amongst the 16 aerospace organizations, a 255 respondents have opted for 25% as the percentage criteria amounting to 43.7% of the total sample population. This is followed by 140 respondents who have chosen 100% as the percentage criteria and scoring 24.0% of the total sample population. A total of 133 respondents have opted for 75% as the percentage criteria and accumulating 22.8% of the total sample size. Finally, 55 respondents have chosen 50% as the percentage criteria and aggregating 9.4% of the total sample size.

10. Conclusions

Publications are the conduit or channel through which scientists communicate their findings with the rest of the world. It appears that the ability to publish rapidly seems to be a primary advantage of the electronic medium for the aerospace scientists and engineers, where research and discovery moves at a rapid pace.

The main conclusions of this research study that the authors would like to present are:

- **Chi Square:** The χ^2 test indicates that the 'Impact Factor' and the different types of aerospace organizations have significant association (Chi-Square=95.991, P = 0.000). Hence the percentage of preference for 'Impact Factor' and the different types aerospace organizations are not approximately the same [Not Uniformly Distributed]

- **Chi Square:** The χ^2 test indicates that the 'Acceptance Criteria' and the different types of aerospace organizations have significant association (Chi-Square=76.536, P = 0.002). Hence the percentage of preference for the 'Acceptance Criteria' and the different type aerospace organizations are not approximately the same [Not Uniformly Distributed]

- **Chi Square:** The χ^2 test indicates that the 'Speed of Peer Review' and the different types of aerospace organizations have significant association (Chi-Square=81.694, P = 0.001). Hence the percentage of preference for the 'Speed of Peer Review' and the different type aerospace organizations are not approximately the same [Not Uniformly Distributed]

- **Chi Square:** The χ^2 test indicates that the 'Online Submission Facility' and the different types of aerospace organizations have significant association (Chi-Square=67.961, P = 0.015). Hence the percentage of preference for the 'Online Submission Facility' and the different types aerospace organizations are not approximately the same [Not Uniformly Distributed]

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TABLES AND FIGURES

Table-1: Distribution of Source Data (Sample Size)

Sl.No.	Organizations	No. of Questionnaires distributed	No. of Questionnaires received	No. of usable questionnaires usable
1.	ADA	67	63	58
2.	AFTC	19	16	15
3.	ADE	14	12	12
4.	ASTE	33	30	29
5.	CABS	16	15	14
6.	CEMILAC	33	30	29
7.	C-MMACS	8	6	6
8.	DARE	11	9	9
9.	LRDE	5	3	2
10.	GTRE	24	22	21
11.	HAL	144	140	134
12.	IAM	40	36	33
13.	ISRO-ISTRAC	25	24	22
14.	IISc	38	37	34
15.	JNCASR	5	3	1
16.	NAL	168	166	164
Total		**650**	**612**	**583 (89.7%)**

Geographical Boundary of the Study (16 Prominent Aerospace Organizations of Bangalore, INDIA).

Key: ADA=Aeronautical Development Agency, **AFTC**=Air Force Technical College, **ADE**=Aeronautical Development Establishment, **ASTE**=Aircraft Systems Testing Establishment, **CABS**=Centre for Airborne Systems, **CEMILAC**=Centre for Military Airworthiness and Certification, **C-MMACS**=Centre for Mathematical Modeling and Computer Simulation, **DARE**=Defense Avionics Research Establishment, **LRDE**=Electronics and Radar Development Establishment, **GTRE**=Gas Turbine Research Establishment, **HAL**=Hindustan Aeronautics Limited, **IAM**=Institute of Aerospace Medicine, **ISRO-ISTRAC**=Indian Space Research Organization, **IISc**=Indian Institute of Science, **JNCASR**=Jawaharlal Nehru Centre for Advanced Scientific Research, **NAL**=National Aerospace Laboratories.

Table-2: Profile of the Respondents (Category-Wise Distribution)

Sl. No.	Organizations	Categories		Organization Wise, Total No. of Respondents	% of Total Sample
		Aerospace Scientist	Aerospace Engineer		
1	ADA	39	19	58	9.9
2	AFTC	0	15	15	2.6
3	ADE	12	0	12	2.1
4	ASTE	2	27	29	5.0
5	CABS	13	1	14	2.4
6	CEMILAC	26	3	29	5.0
7	C-MMACS	2	4	6	1.0
8	DARE	7	2	9	1.5
9	LRDE	2	0	2	0.3
10	GTRE	12	9	21	3.6
11	HAL	3	131	134	23.0
12	IAM	30	3	33	5.7
13	ISRO-ISTRAC	5	17	22	3.8
14	IISc	21	13	34	5.8
15	JNCASR	1	0	1	0.2
16	NAL	120	44	164	28.1
Total for all Organizations		295	288	583	100.0
Percent for all Organizations		(50.6)	(49.4)	(100.0)	
Chi-Square		278.811			
P Value		0.000			

(Numbers in brackets indicate percentages)

Table-3: Which of the following factors decide your choice for publishing your paper in e-journals?

Sl.QW No.	Factor	100%	75%	50%	25%
(1)	Impact factor				
(2)	Acceptance criteria				
(3)	Speed of Peer review				
(4)	Online submission facility				
(5)	Any other, Please Specify:_________________ ________________________				

Table-4: Factors Deciding Choice for Publishing Papers in e-Journals

SN	Organizations	Percentage Criteria					Organization Wise, Total No. of Respondents	% of Total Sample
		Factors	**100%**	**75%**	**50%**	**25%**		
1	ADA	**Impact Factor**	7	17	12	22	58	9.9
			(12.1)	(29.3)	(20.7)	(37.9)		
		Acceptance Criteria	7	18	10	23	58	**9.9**
			(12.1)	(31.0)	(17.2)	(39.7)		
		Speed of Peer Review	8	16	11	23	58	**9.9**
			(13.8)	(27.6)	(19.0)	(39.7)		
		Online Submission Facility	15	13	7	23	58	**9.9**
			(25.9)	(22.4)	(12.1)	(39.7)		
2	AFTC	**Impact Factor**	1	3	2	9	15	**2.6**
			(6.7)	(20.0)	(13.3)	(60.0)		
		Acceptance Criteria	0	4	3	8	15	**2.6**
			(0.0)	(26.7)	(20.0)	(53.3)		

SN	Organizations	Percentage Criteria					Organization Wise, Total No. of Respondents	% of Total Sample
		Factors	100%	75%	50%	25%		
		Speed of Peer Review	0	4	5	6	15	**2.6**
			(0.0)	(26.7)	(33.3)	(40.0)		
		Online Submission Facility	2	1	3	9	15	**2.6**
			(13.3)	(6.7)	(20.0)	(60.0)		
3	ADE	Impact Factor	1	4	1	6	12	**2.1**
			(8.3)	(33.3)	(8.3)	(50.0)		
		Acceptance Criteria	1	4	1	6	12	**2.1**
			(8.3)	(33.3)	(8.3)	(50.0)		
		Speed of Peer Review	3	2	2	5	12	**2.1**
			(25.0)	(16.7)	(16.7)	(41.7)		
		Online Submission Facility	3	3	0	6	12	**2.1**
			(25.0)	(25.0)	(0.0)	(50.0)		
4	ASTE	Impact Factor	5	6	2	16	29	**5.0**
			(17.2)	(20.7)	(6.9)	(55.2)		
		Acceptance Criteria	3	5	3	18	29	**5.0**
			(10.3)	(17.2)	(10.3)	(62.1)		
		Speed of Peer Review	0	5	4	20	29	**5.0**
			(0.0)	(17.2)	(13.8)	(69.0)		
		Online Submission Facility	2	4	3	20	29	**5.0**
			(6.9)	(13.8)	(10.3)	(69.0)		
5	CABS	Impact Factor	1	6	2	5	14	**2.4**
			(7.1)	(42.9)	(14.3)	(35.7)		
		Acceptance Criteria	0	7	3	4	14	**2.4**

SN	Organizations	Percentage Criteria					Organization Wise, Total No. of Respondents	% of Total Sample
		Factors	100%	75%	50%	25%		
			(0.0)	(50.0)	(21.4)	(28.6)		
		Speed of Peer Review	1	6	3	4	14	**2.4**
			(7.14)	(42.86)	(21.43)	(28.57)		
		Online Submission Facility	4	4	2	4	14	**2.4**
			(28.6)	(28.6)	(14.3)	(28.6)		
6	CEMILAC	Impact Factor	3	7	1	18	29	**5.0**
			(10.3)	(24.1)	(3.4)	(62.1)		
		Acceptance Criteria	2	11	4	12	29	**5.0**
			(6.9)	(37.9)	(13.8)	(41.4)		
		Speed of Peer Review	1	6	3	19	29	**5.0**
			(3.4)	(20.7)	(10.3)	(65.5)		
		Online Submission Facility	2	7	1	19	29	**5.0**
			(6.9)	(24.1)	(3.4)	(65.5)		
7	C-MMACS	Impact Factor	3	2	0	1	6	**1.0**
			(50.0)	(33.3)	(0.0)	(16.7)		
		Acceptance Criteria	1	3	1	1	6	**1.0**
			(16.7)	(50.0)	(16.7)	(16.7)		
		Speed of Peer Review	2	2	2	0	6	**1.0**
			(33.3)	(33.3)	(33.3)	(0.0)		
		Online Submission Facility	4	2	0	0	6	**1.0**
			(66.7)	(33.3)	(0.0)	(0.0)		
8	DARE	Impact Factor	2	3	0	4	9	**1.5**
			(22.2)	(33.3)	(0.0)	(44.4)		

SN	Organizations	Percentage Criteria					Organization Wise, Total No. of Respondents	% of Total Sample
		Factors	100%	75%	50%	25%		
		Acceptance Criteria	0	1	4	4	9	**1.5**
			(0.0)	(11.1)	(44.4)	(44.4)		
		Speed of Peer Review	2	1	2	4	9	**1.5**
			(22.2)	(11.1)	(22.2)	(44.4)		
		Online Submission Facility	1	3	2	3	9	**1.5**
			(11.1)	(33.3)	(22.2)	(33.3)		
9	LRDE	Impact Factor	0	1	1	0	2	**0.3**
			(0.0)	(50.0)	(50.0)	(0.0)		
		Acceptance Criteria	1	0	1	0	2	**0.3**
			(50.0)	(0.0)	(50.0)	(0.0)		
		Speed of Peer Review	1	1	0	0	2	**0.3**
			(50.0)	(50.0)	(0.0)	(0.0)		
		Online Submission Facility	1	1	0	0	2	**0.3**
			(50.0)	(50.0)	(0.0)	(0.0)		
10	GTRE	Impact Factor	3	8	3	7	21	**3.6**
			(14.3)	(38.1)	(14.3)	(33.3)		
		Acceptance Criteria	2	8	5	6	21	**3.6**
			(9.5)	(38.1)	(23.8)	(28.6)		
		Speed of Peer Review	3	11	1	6	21	**3.6**
			(14.3)	(52.4)	(4.8)	(28.6)		
		Online Submission Facility	6	6	3	6	21	**3.6**
			(28.6)	(28.6)	(14.3)	(28.6)		
11	HAL	Impact Factor	8	26	19	81	134	**23.0**

SN	Organizations	Percentage Criteria					Organization Wise, Total No. of Respondents	% of Total Sample
		Factors	**100%**	**75%**	**50%**	**25%**		
			(6.0)	(19.4)	(14.2)	(60.4)		
		Acceptance Criteria	6	34	19	75	134	**23.0**
			(4.5)	(25.4)	(14.2)	(56.0)		
		Speed of Peer Review	12	25	25	72	134	**23.0**
			(9.0)	(18.7)	(18.7)	(53.7)		
		Online Submission Facility	23	26	10	75	134	**23.0**
			(17.2)	(19.4)	(7.5)	(56.0)		
12	**IAM**	**Impact Factor**	7	8	2	16	33	**5.7**
			(21.2)	(24.2)	(6.1)	(48.5)		
		Acceptance Criteria	2	11	8	12	33	**5.7**
			(6.1)	(33.3)	(24.2)	(36.4)		
		Speed of Peer Review	3	7	8	15	33	**5.7**
			(9.1)	(21.2)	(24.2)	(45.5)		
		Online Submission Facility	6	8	2	17	33	**5.7**
			(18.2)	(24.2)	(6.1)	(51.5)		
13	**ISRO-ISTRAC**	**Impact Factor**	3	6	3	10	22	**3.8**
			(13.6)	(27.3)	(13.6)	(45.5)		
		Acceptance Criteria	2	10	3	7	22	**3.8**
			(9.1)	(45.5)	(13.6)	(31.8)		
		Speed of Peer Review	7	4	5	6	22	**3.8**
			(31.8)	(18.2)	(22.7)	(27.3)		
		Online Submission Facility	8	4	3	7	22	**3.8**
			(36.4)	(18.2)	(13.6)	(31.8)		

SN	Organizations	Percentage Criteria					Organization Wise, Total No. of Respondents	% of Total Sample
		Factors	100%	75%	50%	25%		
14	IISc	Impact Factor	16	11	2	5	34	**5.8**
			(47.1)	(32.4)	(5.9)	(14.7)		
		Acceptance Criteria	5	17	4	8	34	**5.8**
			(14.7)	(50.0)	(11.8)	(23.5)		
		Speed of Peer Review	7	14	5	8	34	**5.8**
			(20.6)	(41.2)	(14.7)	(23.5)		
		Online Submission Facility	14	7	2	11	34	**5.8**
			(41.2)	(20.6)	(5.9)	(32.4)		
15	JNCASR	Impact Factor	0	0	0	1	1	**0.2**
			(0.0)	(0.0)	(0.0)	(100.0)		
		Acceptance Criteria	0	1	0	0	1	**0.2**
			(0.0)	(100.0)	(0.0)	(0.0)		
		Speed of Peer Review	0	1	0	0	1	**0.2**
			(0.0)	(100.0)	(0.0)	(0.0)		
		Online Submission Facility	0	0	0	1	1	**0.2**
			(0.0)	(0.0)	(0.0)	(100.0)		
16	NAL	Impact Factor	43	50	23	48	164	**28.1**
			(26.20	(30.50	(14.0)	(29.3)		
		Acceptance Criteria	24	76	21	43	164	**28.1**
			(14.6)	(46.30	(12.8)	(26.2)		
		Speed of Peer Review	30	49	35	50	164	**28.1**
			(18.3)	(29.9)	(21.3)	(30.5)		
		Online Submission Facility	49	44	17	54	164	**28.1**
			(29.9)	(26.8)	(10.4)	(32.9)		

SN	Organizations	Percentage Criteria					Organization Wise, Total No. of Respondents	% of Total Sample
		Factors	100%	75%	50%	25%		
(A)	**Impact Factor**	**Total for all Organizations**	103	158	73	249	**583**	**100.0**
		Percent for all Organizations	(17.7)	(27.1)	(12.5)	(42.7)	**(100.0)**	
	Chi-Square	**95.991**						
	P Value	**0.000**						
(B)	**Acceptance Criteria**	**Total for all Organizations**	56	210	90	227	**583**	**100.0**
		Percent for all Organizations	(9.6)	(36.0)	(15.4)	(38.9)	**(100.0)**	
	Chi-Square	**76.536**						
	P Value	**0.002**						
(C)	**Speed of Peer Review**	**Total for all Organizations**	80	154	111	238	**583**	**100.0**
		Percent for all Organizations	(13.70)	(26.40	(19.0)	(40.8)	**(100.0)**	
	Chi-Square	**81.694**						
	P Value	**0.001**						
(D)	**Online Submission Facility**	**Total for all Organizations**	140	133	55	255	**583**	**100.0**
		Percent for all Organizations	(24.0)	(22.8)	(9.4)	(43.7)	**(100.0)**	
	Chi-Square	**67.961**						
	P Value	**0.015**						

(Numbers in Brackets indicate Percentages)

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Dr Ramachandran Guruprasad received his MLIS degree from Annamalai University (1994), MSc in Information Technology from Karnataka State Open University (2006) and a Ph.D. Degree in Library and Information from the University of Mysore (2010). He has two international books to his credit, several book chapters, international conference presentations and national and international journal publications. His areas of interest and specialization include: analyzing the 'Use Patterns of Electronic Information Resources among Scientists, Engineers and Technologists', 'Digital Content Management', 'Digital Video Archiving'. He is the recipient of three national awards, namely: (a) Education ExpoTV (EET-CRS), Special Mention Certificate in the Category of 'Excellence in Research', (b) 'Scientist of the Year 2013' from the National Environmental Science Academy (NESA), New Delhi and (c) Education ExpoTV (EET-CRS) 'Award for Excellence in Technology Research' in the category of Technology Leadership Awards.

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