

Publication Growth of Open Access Management Journals: A Bibliometric Study

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Abstract – This paper describes about the bibliometric study of publication growth of open access journals in Management subject. The year-wise and length-wise distribution of publication, year-wise distribution of Annual Research output vs research pages, Year-wise pattern of department-wise distribution of publication, year-wise, continent-wise and country-wise concentration of research and year-wise, subject-wise distribution were studied and analyzed.

Keywords: Bibliometrics Study, Management Journals

I. INTRODUCTION

The techniques of bibliometrics have extensive applications equally in sociological studies of science, information management, librarianship, history of science including science policy; study of science and scientists and also in different branches of social scientists.

The bibliometrics is not merely a theoretical discipline, but has an extensive application. It is used to identify the pattern of publication, authorship, citation and behaviour of a subject over a period of time or at a given time and thereby offering insight into the dynamics of the area under study. Considering its contemporary significance, an attempt is made by the researcher to bring out a bibliometric analysis of nine Economic Journals.

Scholarly communication means the study of how scholars in any field (e.g., physical, biological, social and behavioral science, humanities and technology) use and disseminate information through formal and informal channels. The study of scholarly communication includes the growth of scholarly information, the relationships among research areas and disciplines, the information needs and uses of individual user groups, and the relationships among formal and informal methods of communication.

Bibliometric methods are applicable only to the study of the formal channels of scholarly communication that is the written record of scholarship. In combination with data gleaned from other methods, they can provide a large, rich characterization of communication process which is not possible otherwise.

II. REVIEW OF LITERATURE

Thanuskodi (2010) analyzed the research output performance of social scientists on social science subjects. The analysis covered mainly the number of articles, authorship pattern, subject-wise distribution of articles, average number of references per articles, forms of documents cited, year-wise distribution of cited journals etc. Krishnamurthy *et al* (2009) made an attempt to analyze the Diabetes literature indexed in the MEDLINE database for the period 1995-2005. In their findings, Relative Growth Rate (RGR) was decreasing year-wise. During their study they identified that USA was the largest contributor of literature on diabetes research.

Mohammed Nazim and Moin Ahmad (2008) aimed to offer an overview of research trends in the field of nanotechnology and characterized its most important aspects such as, growth of literature, authorship pattern, most productive journals, authors, countries etc. Their yearly analysis showed that there was a rapid growth of nanotechnology research from the beginning of 21st century.

Asha (2007) analyzed articles and citations in Demography India for a period of ten years from 1972 to 2001. She also found out that Lokta's relationship was only valid for authors with more than three publications. She identified most-cited journals and examined bibliographic forms cited documents, average age of citations and rate of citation per article.

Kamal Lochan Jena (2006) carried out bibliometric study in the journal ‘Indian Journal of Fiber and Textile Research’ from 1996 to 2004. His study covered the trend publications such as year-wise distribution of articles, bibliographical distribution of citations, authorship pattern, citation pattern, average length of articles, number of tables and figures used, time lag, geographical distribution of authors, etc. Mahapatra and Padmanav Jeans (2006) described the growth of scientific literature in Orissa published during 1985-2004. They analysed the data by authorship pattern, year-wise growth, subject-wise break of papers, category of journal, place of origin, length of papers and productivity of journals.

III. OBJECTIVES OF THE STUDY

The researcher has undertaken the research with the following objectives.

1. To find out the year-wise and length-wise distribution of publication;
2. To find out year-wise distribution of Annual Research output vs research pages;

3. To find out Year-wise pattern of department-wise distribution of publication;
4. To find out year-wise continent wise and country-wise concentration of research;
5. To find out year wise subject-wise distribution.

IV. METHODOLOGY

The data retrieved from Open-Jgate database for the period 2000-2011 has been done with a view to measure the growth of literature over these years. The literature has been analysed to ascertain forms of publication, authorship pattern, and authorship distribution to find out the distribution of articles in journals. The research output of ten Management subject journals which comes to 2709 publications has been taken as a base to measure the above mentioned parameters. The hypotheses framed on objectives are also proved by using necessary statistical tools.

The Table II describes about the year-wise distribution of publication. In the year 2011, there are 412 (15.21%)

V. ANALYSIS AND INTERPRETATION

TABLE I LIST OF JOURNALS TAKEN FOR THE STUDY

S.No.	Journals	Name of the Publisher	Country
1	Asian Academy of Management Journals	Asian Academy of Management & Penerbit Universiti Sains	Malaysia
2	Electronic Journal of Business Ethics and Organization Studies	Business and Organization Ethics Network	Finland
3	Environmental Engineering & Management Journal	Gh. Asachi Technical University of Iasi.	Romania.
4	Journal of Knowledge Management Practice	The Leadership Alliance Inc	Cannada
5	Journal of Interactive Advertising	American Academy of Advertising	USA
6	Investment Analyst Journal	Investment Analysts Society of Southern Africa	South Africa
7	Management: Journal of Contemporary Management Issues	University of Split, Faculty of Economics	USA
8	Research and Practice in Human Resource Management	Curtin University	Western Australia
9	Journal of Electronic Commerce Research	California State University Long Beach	USA
10	Management	University of Primorska	Italy

TABLE II YEAR -WISE DISTRIBUTION OF PUBLICATIONS

Year	Output	Percentage	Cumulative Percentage
2000	87	3.21	3.21
2001	100	3.69	6.90
2002	170	6.28	13.18
2003	113	4.17	17.35
2004	219	8.08	25.43
2005	180	6.64	32.07
2006	237	8.75	40.82
2007	190	7.01	47.83
2008	251	9.27	57.10
2009	363	13.40	70.50
2010	387	14.29	84.79
2011	412	15.21	100
Total	2709	100	

research articles were published and it is the highest among all the years. In the year 2000, 3.21% articles were published and it is the lowest among all the years. From this it is clear

that the number of publications is being increased every year.

The Table III describes about the distribution of publication

TABLE III DISTRIBUTION OF PUBLICATIONS BY LENGTH OF PAPERS

S.No.	No. of Pages	Articles	Percentage	Cum. Total	Cum. Percentage
1	1 - 5	268	9.89	268	9.89
2	6 - 10	1193	44.04	1461	53.93
3	11 - 15	559	20.63	2020	74.56
4	16 - 20	377	13.92	2397	88.48
5	21 - 25	179	6.61	2576	95.09
6	26 - 30	91	3.36	2667	98.45
7	31 - 35	24	0.89	2691	99.34
8	36 - 40	12	0.44	2703	99.78
9	41 - 45	5	0.18	2708	99.96
10	46 - 50	1	0.04	2709	100
11	51 - 55	0	0	2709	100
12	56 - 60	0	0	2709	100
Total		2709	100		

by length of papers. There are 1193 (44.04%) articles have 6-10 pages of length and it is the highest among all the categories. There are 559 papers (20.63%) published with 11-15 pages of length it is the second highest. One Article

has been published with 46-50 pages. From this, it is clear that the length of articles for the most of the publications are 6-10 pages only.

The table IV describes the year-wise distribution of annual

TABLE IV YEAR-WISE DISTRIBUTION OF ANNUAL RESEARCH OUTPUT (ARTICLES) VS RESEARCH PAGES

Year	Annual Research Output (Articles)	Total Pages of Research Output	Average Number of Pages per Contribution
2000	87	871	10
2001	100	1000	10
2002	170	1699	9
2003	113	1131	10
2004	219	2191	10
2005	180	1922	11
2006	237	2370	10
2007	190	1941	12
2008	251	2511	10
2009	363	3630	10
2010	387	3877	11
2011	412	4122	11
Total	2709	27262	

research output vs research pages published. In the year 2011 the total articles are 412 and the total pages published are 4122 and the average number of pages per contribution is 11. It is the highest among all the categories. In the year 2000 the annual research articles are 87 and total pages of

research publication of articles are 871. The average number of pages per contribution is 10 and it is the lowest among all the categories. All the remaining years are in between these two categories.

TABLE V YEAR-WISE PATTERN OF DEPARTMENT-WISE DISTRIBUTION OF PUBLICATIONS

Discipline	Dept.	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Total	%
Management	Finance	24	20	22	22	18	19	17	14	26	17	21	14	29	263	15.78
	Production	4	3	3	3	2	3	3	7	3		6	7	10	54	3.24
	Marketing	3	13	8	10	4	16	19	9	18	15	14	15	14	158	9.48
	Entrepreneurship	1		1	1	1	1		2		1	1	2	2	13	0.78
	Systems	2	9	15	30	24	28	30	27	26	33	27	48	37	336	20.16
	HR	34	41	51	53	36	62	68	66	53	72	95	99	113	843	50.57
Total		68	86	100	119	85	129	137	125	126	138	164	185	205	1667	100
Environmental	General		1		16	8	15	20	36	14	11	46	46	59	272	24.73
	Ecology				1	1	3				1		12	19	37	3.36
	Chemistry				31	19	70	21	72	49	92	153	132	113	752	68.36
	Psychology				1										1	0.09
	Energy				2		2	2	4	1			11	16	38	3.45
Total			1		51	28	90	43	112	64	104	199	201	207	1100	100

The Table V describes about the year-wise pattern of department-wise distribution of publications. The management discipline there are 6 departments and the HR has 843 articles with 50.57%. It is the highest among all the categories. In Environmental discipline, there are 5

departments and chemistry subject had 752 articles and the percentage is 68.36%. It is the highest among all the categories. The year-wise in departments the articles are gradually increasing.

TABLE VI YEAR-WISE CONTINENT-WISE CONCENTRATION OF RESEARCH PUBLICATIONS

Continent	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Total
AFRICA	15	9	12	10	11	10	13	12	14	15	16	11	10	158
ASIA	17	16	25	16	19	24	32	31	32	38	41	54	55	400
EUROPE	21	31	26	96	51	128	80	162	104	137	156	177	307	1476
N. AMERICA	16	21	28	38	26	39	41	24	28	41	38	30	26	396
S. AMERICA						1	1		3			2		7
OCEANIA	1	10	9	10	6	17	13	8	10	20	12	12	14	142

The Table VI describes about the year-wise, continent-wise concentration of research publication. The Europe continent has 1476 articles published and in the year 2011 has published 307 articles and it is the highest among the other

entire continent. The South America has contributed only 7 articles and in the year 2008 only 3 articles were published and in they are the lowest among all the continent in research publications.

TABLE VII YEAR-WISE PATTERN OF COUNTRY-WISE DISTRIBUTION OF PUBLICATIONS

Continent	Country/Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Total	
AFRICA	Nigeria							1		1	3	1	2	2	10	
	Egypt										1	1			2	
	Mauritius							1	1						2	
	Zimbabwe									1	1				2	
	South Africa	15	9	12	10	11	10	10	10	10	11	10	10	7	6	131
	Algeria								1	1						2
	Botswana												3	1		4
	Kenya													1		1
	Sudan														1	1
	Malawi										1		1		1	3
ASIA	malaysia	3	5	9	5	6	6	10	10	9	14	13	13	21	124	
	Singapore	5	6	7	1	2	1	1	4	2	2		1		32	
	China	7	1	2		3	1	3	4	3	1	2	8	3	38	
	Philippines	1													1	
	Vietnam		1		1								2	1	5	
	Korea		1		2	1	2	2		2	1		1		12	
	Indonesia		1					1	1			1			4	
	India			2	4	3	6	5	6	6	8	6	11	13	70	
	Thailand			3			1	3		1			2	2	12	
	United Arab Emirates				1	1	1		1	3		2	2	1	12	
	Bangladesh						1	1	1			1			4	
	Kuwait							1	1						2	
	Pakistan											2	3	1	6	
	Sri Lanka													1	1	
	Taiwan		1	1	1	3	2		1	1	3	3	2	7	25	
	Turkey						2	1		2		2	2	1	10	
	Russia									1					1	2
	Iran								1	1		2	5	2	11	
	Jordan										1	2	2		5	
	Japan	1							2	1		1	1	2	1	9
	Saudi Arabia											1				1
	Israel			1					1		1	1	1			5
	Oman												1	1	2	4
Guinea											1		1		2	
Bahrain														1	1	

EUROPE	UK	1	2	3	9	7	7	5	8	11	5	3	4	8	73
	Norway				2				3		2		2	2	11
	Greece		1		1	1	1	1	3	4	2	2	4	2	22
	Romania				52	27	74	38	98	51	101	216	200	243	1100
	Sweden				3	2			8	6			1	3	23
	France	1	3	3	2	4	8	3	9	1	7	12	15	11	79
	Netherlands	2		1	3			1				1	3	3	14
	Moldova				2		6	1	1	3	1				14
	Germany	2		1	2	1	1	3	3	4			5	1	23
	Denmark				2		2			1		1	1	1	8
	Italy		1				3	5	5	1	1	1	8	2	27
	Belgium			1			1		1				1	3	7
	Austria		1				2		2				1		6
	Hungary						1								1
	Finland	2	5	5	3	1	5	3	9	3	3	8	6	8	61
	Spain	3	1		3	1	4	6	2	3	5	4	7	8	47
	Ireland	1					1	1						1	4
	Georgia									1	1				2
	Serbia									1			2		3
	Portugal									2		1	6		9
	Ukraine												1		1
	Switzerland		1	2	1					1				1	6
	Czech Republic			2	1	1				1		1			6
	Slovenia	2	9	3	7	2	5	7	7	5	4	3	5	2	61
Croatia	6	5	3	3	3	4	4	2	5	5	3	5	6	54	
Poland	1	1				1							2	5	
Lithuania		1												1	
Bosnia and Herzegovina			1			1								2	
Slovakia			1				1	1						3	
Albania						1								1	
OCEANIA	Australia	1	7	6	7	5	15	11	6	9	16	9	11	11	114
	New Zeland		3	3	2	1	2	2	2	1	4	3	1	3	27
SOUTH AMERICA	Brazil						1	1		2			2		6
	Chile									1					1
NORTH AMERICA	USA	13	17	25	33	25	34	36	21	25	38	32	27	24	350
	Trinidad													1	1
	Canada	3	4	3	7	2	5	5	3	3	3	5	3	1	47
	Mexico							1				1			2

The Table VII describes about the year-wise pattern of country-wise publications. Among all the country the Romania has published 1100 articles during the study period and it is the highest among all the categories. In the year

2011 Romania has published 243 articles and it is the highest. There are 11 countries like Kenya, Sudan, Philippines, Sri Lanka, Saudi Arabia, Bahrain, Hungary, Ukraine, Lithuania, Albania, Chile and Trinidad has published only 1 articles and this is the lowest among all the countries.

TABLE VIII YEAR-WISE DISTRIBUTION OF ANNUAL RESEARCH OUTPUT (ARTICLES) VS RESEARCH PAGES

Year	No. of Articles	Cumulative Total	RGR	Doubling Time
2000	87	87		
2001	100	187	0.765	0.906
2002	170	357	0.647	1.072
2003	113	470	0.275	2.521
2004	219	689	0.383	1.812
2005	180	869	0.232	2.986
2006	237	1106	0.241	2.874
2007	190	1296	0.159	4.372
2008	251	1547	0.177	3.915
2009	363	1910	0.211	3.288
2010	387	2297	0.185	3.757
2011	412	2709	0.165	4.202

The Table VIII describes about the year-wise distribution of annual research output and the doubling time. In the year 2007 the doubling time is 4.372 and in the year 2011 is 4.202 and it is the highest among all the categories. In the year 2001 is 0.906 and in the year 2004 is 1.812 and it is the lowest among all the other categories. From this it is clear that the doubling time that the articles are increased every five years.

VI. CONCLUSION

The present research is focused on the Research productivity of Management studies journals published in open access. A bibliometric study attempts to evaluate the journal output in terms of content and coverage, growth rate and areas of research concentration in articles, the year-wise and length-wise distribution of publication, year-wise distribution of Annual Research output vs research pages, Year-wise pattern of department-wise distribution of publication, year-wise continent-wise and country-wise concentration of research, and year-wise, subject-wise distribution. The analysis reflects a wider notion gradual increasing in the present study.

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