

INDEXING OF RESEARCH JOURNALS BY SCIMAGO: A DECADAL STUDY (2005-2014)

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Citation indexes have assumed a significant role among the academic, research and scientific community across the world. The researchers are making their research results public through the recognized and well accomplished scientific journals. Given the fact, the present study is an attempt to work out the growth of research journals indexed by SCImago, which is purely based on SCOPUS data source citation index, one of the largest and well recognized citation indexing services in different subject fields across the world. Some of the key concepts evaluated include, the indexing growth of research journals SCOPUS citation index, distribution of indexed journals across different subject fields both at global and continental level.

The scope of the study is global in nature, but is limited to one major citation index only, viz. SCImago, which is based on SCOPUS data source. The study has been undertaken by analyzing the secondary data retrieved from the SCImago Journal and Country Ranking, which is totally based on the SCOPUS data source [1]. The journals indexed by SCOPUS stand divided into 27 different major subject fields, covering over 300 sub-subject fields, published all across the globe. On average each year, 3.29% journals are added to the existing lot of journals indexed by SCOPUS. As on date, journal from 102 nation countries were found indexed by the SCOPUS database. A total of 16559 journals were indexed by the SCOPUS databases in 2005 and this number grew to 22878 research journals in 2014, registering a growth of 38.16% during the period of study at an average annual corresponding growth of 0.62%. Europe, North America and Asia emerged as the three leading continents in their standing order of having indexed the maximum number of journals with SCOPUS. While as, as the subject level, Medicine, Social Sciences and Arts & Humanities emerged the leading subject areas of having indexed the maximum number of journals with the database.

The study highlights the importance of popular indexing services and how researchers should be actually careful while choosing journals for publishing their research results, especially, when publishing phishing in different forms has somewhat become the order of the day.

Keywords: SCImago; SCOPUS; Citation Index; World; Continents; Indexing.

INTRODUCTION

Research activities all across the world have increased manifold during the last decade. The number of research articles published each year from each individual country is increasing exponentially and this gets better corroborated by the figures of SCImago Journal and Country Ranking. As per SCImago, a total of 1080721 research articles were published in 1996 across 210 nation states all across the world, while as the number of research articles published in 2014 were 3287871 across 231 nation states, which means a growth of over 204% during the last two decades [1]. This also indicates the fact that scientific output doubles almost every 10 years. This manifold increase in the research output has led to manifold growth in the introduction of new research journals all across the world in every subject field.

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Thereon, the liberal funding made available to the research institutions all across the world has not just promoted the research activities, but has equally driven these research institutions more result oriented. As per the figures retrieved from the National Science Library, New Delhi, the regional center of International Identifier for Serials for India, issued over 15000 ISSN numbers during the last decade [2]. The scenario of introduction of new research journals in other countries is no way different from India.

Journal indexes help researchers in identifying specific, most relevant and well recognized journals to publish their research results. Given the fact, these citation indexes over a period of time have gained a good amount of popularity among the scientific community, especially the way they keep track of the research output published all across the world. What adds to the greater acceptance of these citation indexes is the way they maintain the bibliographical database of research journals, research articles and above all the citations count they maintain for each individual article. SCOPUS, Web of Science, PubMed, SciFinder, Google Scholar, ArXiv, CiteSeer, Scirus, Science Direct etc., are some of the well-recognized citation indexes over which a good number of studies have already been undertaken by a researchers all across the world [3,4,5,6,7,8,9,10,11& 12]. The citation count is being increasingly used to measure the impact factor or h-index of the journals, institutions and the individuals. Higher the impact factor or h-index of a journal, better is supposed to be the quality of the research results published in all such journals.

The SCOPUS and the Web of Science are the two common, but very popular journal indexes closely followed by the scientific and other research community all across the world. Indexing a research journal by these citation indexes is seen as a major achievement by the publishers, editors. Accordingly, the present study is an attempt to undertake the assessment of research journals indexed by the SCOPUS citation index. SCOPUS is one of the largest, leading and the most popular citation index among the academic, research & the scientific community all across the world. The database as on date has more than 22000 journals indexed with it [13], while as its nearest rival Web of Science has around 13000 journals in its index [14].

Nearly 10% journals indexed by SCOPUS are of Elsevier, 8% of Springer, 5% each of Wiley–Blackwell and Taylor & Francis, 2% Sage and 1% each from Wolters Kluwer, Oxford University Press, Emerald, Inderscience Publishers, Cambridge University Press, Bentham Science, IEEE and MacMillan publishers, while as the rest 60% journals are from various other publishers. What is more interesting about SCOPUS citation index is that nearly 20% journals indexed by the data source are open access journals [13].

LITERATURE REVIEW

Journals are the age old, but still the most authentic sources of scientific communication. These research journals apart from being the most effective mediums to validate the research results, are also crucial for the growth of disciplines [14]. While comparing the PubMed, Scopus, web of science, and Google scholar citation indexes services, SCOPUS was found to have a more expanded spectrum of journals [5]. To index a journal with SCOPUS, a journal should be having peer-reviewed content, should be having an ISSN number and should be published on a regular basis with a minimum of two years publication history [13]. Thomson and Reuters maintain that they follow a very rigorous review process while indexing a journal with Web of Science. As per the Web of Science, nearly 3000-4000 journals are each year reviewed for indexing purpose, but only 10-12% journals meet their laid down standards [15].

The visibility of Iranian Journals indexed by Journal Citation Reports (JCR) was assessed by Erfanmanesh and Nojavan [16] and found a total of 38 Iranian journals, indexed by JCR during the year 2013. The researchers found 34.8% research articles published in the Iranian Journals were contributed by foreign authors. Garg and Kumar [17] touched the quality parameter issue of the journals by highlighting that despite over 1000 scientific periodicals published across India, only 46 stand indexed by the Science Citation Index Expanded (SCIE). In a similar study Singh & Pandita [18] found 452 research journals indexed by SCImago from India during the year 2014, constituting meager 1.97% of the total research journals indexed by this particular indexing service at the global level. However, the share percentage of Indian journals indexed at the continental level constituted 16.95%.

To assess the visibility of Italian journals in the Journal Citation Reports (JCR) 2000, Ugolini & Casilli[19] took impact factor of journals as a parameter and found 74 journals indexed in the JCR, of which 14 journals were having impact factor more than one. The researcher found that Italian journals were having fairly good visibility, but blamed the low research and development expenditure of the country affecting the research output of Italy to that of other countries.

The research journals published in Latin American and Caribbean countries indexed in WoS recoded manifold growth during 2006 to 2009 [20]. The number of research journals indexed by WoS increased from 69 in 2006 to 248 research journal in 2009. The researcher termed this growth as unprecedented and owed the reasons to the editorial policy of the WoS rather any change in the scientific community of Latin American and Caribbean countries. Brazil was found as the largest scientific journal publishing country, as one-fourth of the indexed journals were from Brazil. Esther Baldinger [21] found 3419 journals indexed by the Index Medicus by December 1999. The researcher found four different formats of journal title hosting on the website of Index Medicus viz. by abbreviated titles, full titles, by subject field and by country, with indexed list made available for both online and print journals. The author identified 9334 serial titles indexed on LSIOW (list of serials indexed for online users), of which 4302 titles were indexed with MEDLINE. Indexing of journals help them to improve the visibility of the content they publish, which otherwise goes unnoticed by a large user base [22]. The researchers observed that due to a very less percentage of Indian journals indexed with Index Medicus, nearly 98% of the medical literature produced in India goes unnoticed among the global medical community.

The study undertaken by Rodrigues and Stubert [23] identified 84 research journals indexed by Web of Science in the field of Information Science in the year 2012. The researchers also found that of the total journals indexed, 9 were open access, of which only 6 were indexed by DOAJ. Scientific productivity or the research productivity has a direct co-relation with the number of journals indexed by a particular indexing service [24]. The researcher owed the India's declining research productivity to the fall in journals indexed by

SCOPUS and observed a fivefold increase in the journals indexed during the last 20 years. The author also discussed about the Journal Packing Density (JPD), whereby the researcher found that the JPD of Chinese journals was double as compared to the JPD in the rest of the world. The researcher found that on an average each Chinese journal publishes about 100 research articles per annum, resulting into China's unusual rise in the scientific productivity.

Rodrigues and Abadal [25] undertook a study to assess the Ibero-American journals indexed by SCOPUS and the Web of Science. The researchers identified 879 journals indexed in both the databases with Spain having maximum 35.6% share, Brazil 28.5%, while as, 35.9% journals were indexed from the remaining 11 countries. At the subject level, Medicine had a maximum share of indexed journals, followed by Agriculture. The researchers also found that 95% of the indexed journals were available in digital format, of which 82% were found as open access journals.

Chemistry is one of leading subject fields, which has recorded the maximum growth of research journals during the last century. In a study undertaken by [26] found that around 435 journals were covered by 'Chemical Abstract' in 1910 and this number grew to over 14000 journals in 1975-76. A similar surge in chemistry journals was observed by [27]. Sen & Lakshmi [28] suggested that a good number of journals with slight improvement in their publishing standard can help them find place in good indexes. Research journals in Library and information Science doubled approximately every after 13.8 years [29].

Language plays equally an important role in the scientific communication and so do plays periodicity part in making timely public the scientific results [30, 31]. Visibility of contents published in a research journal helps in growing its popularity among the scientific community and indexing of research journals with popular indexes is not the only way to increase the visibility of published content. There is a growing trend toward publishing the research results in Open Access (OA) journals. Open Access journals do not pose any kind of restriction in accessing and distribution of the content they publish, which helps in gaining popularity by these research journals hence are easily indexed by the popular journal indexes. Given the popularity of OA journals, more than 4200

OA journals are indexed by SCOPUS in its database [32]. Korean Medicos are being encouraged to publish their research results in the OA journals [33], this has helped Korean journals to be indexed by popular journal indexes.

OBJECTIVES OF THE STUDY

The specific objectives of the study are:

- To assess the growth of research journals indexed by SCOPUS during the last decade (2005-2014) at the global level.
- To present an overview of the research journals indexed by SCOPUS at the continental level.
- To reflect the indexing scenario of research journals by SCOPUS citation index at the subject level.

METHODOLOGY

The present study has been undertaken on the secondary data retrieved from the SCImago Journal and Country Ranking. The data was retrieved on March 31, 2016 at 1459 hrs IST and can be accessed at: http://www.scimagojr.com/countryrank.php?area=0&category=0®ion=all&year=all&order=it&min=0&min_type=it. The study has been undertaken with the view to understand the pattern and growth of research journals indexed by the SCOPUS. To undertake the study, data was retrieved from the SCImago for the period 2005-2014 [1], which is based on SCOPUS data source. Annual corresponding growth of research journals indexed by SCImago has been computed for each individual

year along with the number of contributing countries. Also, the distribution of journals has been calculated for each individual continent and at the subject area level.

LIMITATIONS OF THE STUDY

During the structuration of the data, it emerged that the data retrieved from the SCImago journal and the country ranking website, apart from including journals, also includes book series and conference proceedings. Of the total indexed titles, 992 constitute book series and 405 conference proceedings. The figures in the table-1 and table-2 show variation to that of figures reflected in table-3. Upon working out the reasons for the mismatch it emerged that 13468 journals are of multidisciplinary nature and as such have been repeated under different subject fields. Since, more than 96% titles in the database constitute journal titles and given the objectives of the study, the analysis under all the tables has been undertaken without segregating book series and conference proceedings title.

RESULTS

No complex mathematical techniques have been applied to analyze the data. The retrieved data upon structuration has been tabulated as per the objectives of the study. Computation at most of the places has been undertaken up to two decimal places. Some of the common computations performed include, addition, subtraction, division, drawing percentage etc.

Table 1: Year-Wise Growth of Journals Indexed with SCImago

S.No.	Year	No. of Journals	ACG% of Journals	No. of Countries	ACG% of Countries	Avg. Journals Published from each Country
1	2005	16559	-	96	-	172.59
2	2006	17110	3.26	98	2.08	174.59
3	2007	17670	3.27	97	-1.02	182.16
4	2008	18140	2.65	97	0.00	187.01
5	2009	19007	4.77	95	-2.06	200.07
6	2010	20200	6.27	99	4.21	204.04
7	2011	21198	4.94	99	0.00	214.12
8	2012	22263	5.02	102	3.03	218.26
9	2013	22668	1.81	102	0.00	222.23
10	2014	22878	0.98	102	0.00	224.29
Avg			3.29	98.7	0.62	199.93

ACG-Annual Corresponding Growth

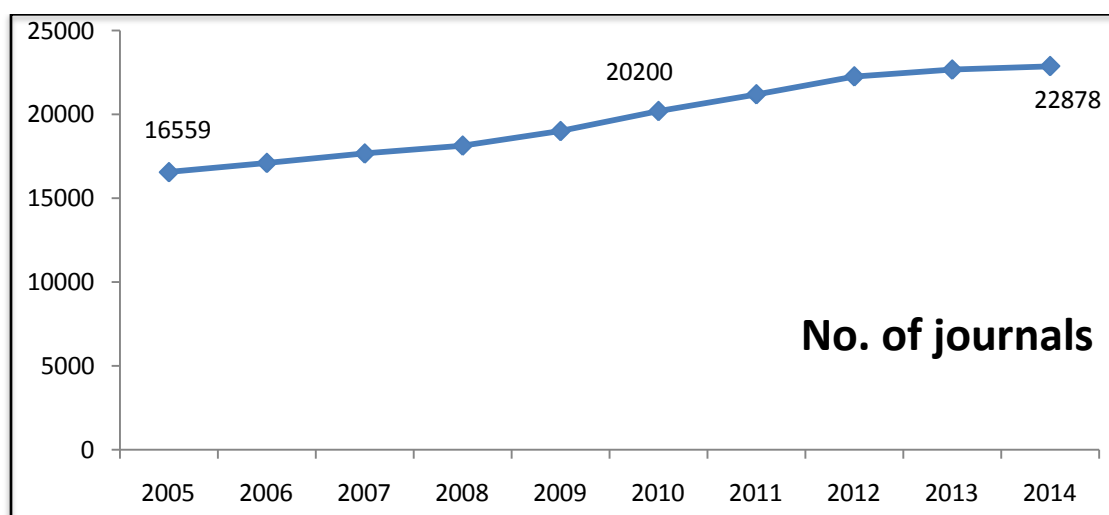


Fig.1: Year Wise Growth Curve of SCImago Indexed Journals

During the last decade, 38.16% growth was recorded in the indexing of journals with SCOPUS citation index across the globe, while as, the number of contributing countries rose from 96 to 102, recording a growth of 6.25%. A maximum, 6.27% annual corresponding growth was recorded in the indexing journals during the year 2010, while as minimum 0.98% growth was recorded in the year 2014. On average, 3.29% journals were added each

year to the SCOPUS citation indexing database during the last decade at an average annual corresponding growth of 0.62%. On average 199.93 journals are indexed by the data source from each individual country. Negative growth was recorded in the contributing countries in 2007 and 2009, as the number of contributing countries slipped from 98 to 97 and from 97 to 95 respectively in the respective years.

Table 2: Year-Wise Indexing of Research Journals at Continental Level with SCImago

Continent		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total Avg
Asia	Journals	1511	1585	1650	1743	1934	2175	2364	2563	2634	2666	2082
	ACG%	-	4.89	4.10	5.63	10.95	12.46	8.68	8.41	2.77	1.21	5.91
	GS%	9.12	9.26	9.33	9.60	10.17	10.76	11.15	11.51	11.61	11.65	10.53
Africa	Journals	79	82	81	88	109	126	135	138	140	143	112
	ACG%	-	3.79	-1.21	8.64	23.86	15.59	7.14	2.22	1.44	2.14	6.36
	GS%	0.47	0.47	0.45	0.48	0.57	0.62	0.63	0.61	0.61	0.62	0.56
Australia	Journals	182	190	204	208	261	325	364	390	392	385	290
	ACG%	-	4.39	7.36	1.96	25.48	24.52	12.00	7.14	0.51	-1.78	8.15
	GS%	1.09	1.11	1.15	1.14	1.37	1.60	1.71	1.75	1.72	1.68	1.46
Europe	Journals	8891	9330	9689	10073	10481	11055	11541	12213	12472	12625	10837
	ACG%	-	4.93	3.84	3.96	4.05	5.47	4.39	5.82	2.12	1.22	3.58
	GS%	53.69	54.52	54.83	55.52	55.14	54.72	54.44	54.85	55.02	55.18	54.81
North America	Journals	5627	5667	5701	5613	5694	5946	6185	6311	6335	6343	5942
	ACG%	-	0.71	0.59	-1.54	1.44	4.42	4.01	2.03	0.38	0.12	1.21
	GS%	33.98	33.12	32.26	30.94	29.95	29.43	29.17	28.34	27.94	27.72	30.05
South America	Journals	269	256	345	415	528	573	609	648	695	716	505
	ACG%	-	-4.83	34.76	20.28	27.22	8.52	6.28	6.40	7.25	3.02	1.08
	GS%	1.62	1.49	1.95	2.28	2.77	2.83	2.87	2.91	3.06	3.12	2.55
World	Journals	16559	17110	17670	18140	19007	20200	21198	22263	22668	22878	19769
	ACG%	-	3.32	3.27	2.65	4.77	6.27	4.94	5.02	1.81	0.92	3.29

ACG: Annual Corresponding Growth, GS-Global Share

Distribution of journals indexed by the SCOPUS reflects altogether a different story. If we look at the latest figures, viz., for the year 2014, then of the total journals indexed by SCOPUS, 55.18% come alone from the Europe, which is followed by North America with 27.12% share percentage and Asia with 11.65% contribution is the third largest contributing continent. South America, Australia and Africa are the other three contributing continents with their individual share percentage of 3.12%, 1.68% and 0.62% journals respectively. Scenario of

Annual Corresponding Growth (ACG) in journals indexed by SCOPUS at the continental level is slightly different from their overall contribution. Australia and Africa are the two promising continents which have registered the maximum 8.15% and 6.36% ACG respectively. With 5.91% ACG Asia is the third largest growing continent, followed by Europe, North America and South America with their individual ACG of 3.58%, 1.21% and 1.08% respectively.

Table 3: Year-Wise Indexing of Journals at Subject Level with SCImago

Subject		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Agriculture and Biological Sciences	Journals	1256	1306	1396	1483	1610	1714	1756	1811	1854	1874
	ACG%	-	3.98	6.89	6.23	8.56	6.45	2.45	3.13	2.37	1.07
	GS%	4.87	4.88	5.03	5.17	5.33	5.33	5.21	5.12	5.15	5.15
Arts and Humanities	Journals	1940	1999	2044	2131	2253	2470	2657	3056	3198	3317
	ACG%	-	3.04	2.25	4.25	5.75	9.63	7.57	15.01	4.64	3.72
	GS%	7.52	7.47	7.36	7.43	7.46	7.68	7.88	8.65	8.88	9.12
Biochemistry, Genetics and Mol. Biology	Journals	1393	1438	1509	1564	1639	1725	1806	1853	1880	1878
	ACG%	-	2.86	4.93	3.64	4.79	5.24	4.69	2.60	1.45	-0.10
	GS%		5.37	5.44	5.45	5.43	5.36	5.36	5.24	5.22	5.16
Business, Management and Accounting	Journals	564	681	739	787	874	977	1019	1061	1080	1106
	ACG%	-	20.74	8.51	6.49	11.05	11.78	4.29	4.12	1.79	2.40
	GS%	2.18	2.54	2.66	2.74	2.89	3.04	3.02	3.00	3.00	3.04
Chemical Engineering	Journals	460	454	448	456	461	491	505	522	523	527
	ACG%	-	-1.30	-1.32	1.78	1.09	6.50	2.85	3.36	0.19	0.76
	GS%	1.78	1.69	1.61	1.59	1.52	1.52	1.44	1.47	1.45	1.44
Chemistry	Journals	694	697	712	726	748	775	798	808	815	813
	ACG%	-	0.43	2.15	1.96	3.03	3.60	2.96	1.25	0.86	-0.24
	GS%	2.69	2.60	2.56	2.53	2.47	2.41	2.36	2.28	2.26	2.23
Computer Science	Journals	947	1005	1048	1102	1173	1284	1341	1402	1430	1445
	ACG%	-	6.12	4.27	5.15	6.44	9.46	4.43	4.54	1.99	1.04
	GS%	3.67	3.75	3.77	3.84	3.88	3.99	3.98	3.96	3.97	3.97
Decision Science	Journals	172	189	207	224	241	261	273	291	288	293
	ACG%	-	9.88	9.52	8.21	7.58	8.29	4.59	6.59	-1.03	1.73
	GS%	0.66	0.70	0.74	0.78	0.79	0.81	0.81	0.82	0.80	0.80
Dentistry	Journals	117	121	127	134	139	151	155	166	165	167
	ACG%	-	3.41	4.95	5.51	3.73	8.63	2.64	7.09	-0.60	1.21
	GS%	0.45	0.45	0.45	0.46	0.46	0.46	0.46	0.47	0.45	0.45
Earth and Planetary Science	Journals	903	939	938	979	999	1022	1038	1043	1064	1070
	ACG%	-	3.98	-0.10	4.37	2.04	2.30	1.56	0.48	2.01	0.56
	GS%	3.50	3.51	3.38	3.41	3.30	3.18	3.08	2.95	2.95	2.94
Economics, Econometrics, Finance	Journals	462	506	555	599	685	730	764	804	821	836
	ACG%	-	9.52	9.68	7.92	14.35	6.56	4.65	5.23	2.11	1.82
	GS%	1.79	1.89	2.00	2.08	2.26	2.27	2.26	2.27	2.28	2.30
Energy	Journals	304	307	291	305	311	326	342	359	365	368
	ACG%	-	0.98	-5.21	4.81	1.96	4.82	4.90	4.97	1.67	0.82
	GS%	1.17	1.14	1.04	1.06	1.03	1.01	1.01	1.01	1.01	1.01
Engineering	Journals	2155	2164	2107	1993	2060	2199	2276	2374	2415	2429
	ACG%	-	0.41	-2.63	-5.41	3.36	6.74	3.50	4.30	1.72	0.57
	GS%	8.35	8.09	7.59	6.95	6.82	6.84	6.75	6.72	6.70	6.68
Environmental Sciences	Journals	824	840	879	930	986	1043	1083	1127	1149	1174
	ACG%	-	1.94	4.64	5.80	6.02	5.78	3.83	4.06	1.95	2.17
	GS%	3.19	3.14	3.16	3.24	3.26	3.24	3.21	3.19	3.19	3.23

PANDITA & SINGH: Indexing of Research Journals by SCImago

Health Professions	Journals	339	355	380	385	406	423	453	464	466	462
	ACG%	-	4.71	7.04	1.31	5.45	4.18	7.09	2.42	0.43	-0.85
	GS%	1.31	1.32	1.37	1.34	1.34	1.31	1.34	1.31	1.29	1.27
Immunology & Microbiology	Journals	400	408	422	433	440	461	504	512	521	520
	ACG%	-	2.00	3.43	2.60	1.61	4.77	9.32	1.58	1.75	-0.19
	GS%	1.55	1.52	1.52	1.51	1.45	1.43	1.49	1.44	1.44	1.43
Material Sciences	Journals	868	880	871	896	921	976	1009	1027	1034	1038
	ACG%	-	1.38	-1.02	2.87	2.79	5.97	3.38	1.78	0.68	0.38
	GS%	3.36	3.29	3.14	3.12	3.05	3.03	2.99	2.90	2.87	2.85
Mathematics	Journals	852	888	932	994	1069	1152	1192	1264	1276	1284
	ACG%	-	4.22	4.95	6.65	7.54	7.76	3.47	6.04	0.94	0.62
	GS%	3.30	3.32	3.36	3.46	3.54	3.58	3.53	3.51	3.54	3.53
Medicine	Journals	5331	5393	5597	5700	5848	6056	6327	6498	6514	6450
	ACG%	-	1.16	3.78	1.84	2.59	3.55	4.47	2.70	0.24	-0.98
	GS%	20.67	20.17	20.18	19.87	19.37	18.84	18.78	18.39	18.09	17.74
Multidisciplinary	Journals	65	68	74	77	78	98	102	108	111	109
	ACG%	-	4.61	8.82	4.05	1.29	25.64	4.08	5.88	2.77	-1.80
	GS%	0.25	0.25	0.26	0.26	0.25	0.30	0.30	0.30	0.30	0.29
Neuroscience	Journals	353	367	383	406	422	449	483	502	510	509
	ACG%	-	3.96	4.35	6.00	3.94	6.39	7.57	3.93	1.59	-0.19
	GS%	1.36	1.37	1.38	1.41	1.39	1.39	1.43	1.42	1.41	1.40
Nursing	Journals	398	420	517	543	565	578	592	591	592	588
	ACG%	-	5.52	23.09	5.02	4.05	2.30	2.42	-0.16	0.16	-0.67
	GS%	1.54	1.57	1.86	1.89	1.87	1.79	1.75	1.67	1.64	1.61
Pharmacology, Toxicology & Pharmaceutics	Journals	502	515	552	561	592	659	710	736	749	738
	ACG%	-	2.57	7.18	1.63	5.52	11.31	7.73	3.66	1.76	1.46
	GS%	1.94	1.92	1.99	1.95	1.96	2.05	2.10	2.08	2.08	2.03
Physics & Astronomy	Journals	839	873	885	904	929	970	988	1005	1001	1005
	ACG%	-	4.05	1.37	2.14	2.76	4.41	1.85	1.72	-0.39	0.39
	GS%	3.25	3.26	3.19	3.15	3.07	3.01	2.93	2.84	2.78	2.76
Psychology	Journals	754	783	817	852	900	949	998	1031	1048	1044
	ACG%	-	3.84	4.34	4.28	5.63	5.44	5.16	3.30	1.64	-0.38
	GS%	2.92	2.92	2.94	2.97	2.98	2.95	2.96	2.91	2.91	2.87
Social Science	Journals	2750	2991	3150	3346	3644	3997	4318	4697	4921	5091
	ACG%	-	8.76	5.31	6.22	8.90	9.68	8.03	8.77	4.76	3.45
	GS%	10.66	11.81	11.35	11.66	12.07	12.44	12.81	13.29	13.66	14.00
Veterinary Sciences	Journals	144	148	155	163	189	192	196	205	210	211
	ACG%	-	2.77	4.72	5.16	15.95	1.58	2.08	4.59	2.43	0.47
	GS%	0.55	0.55	0.55	0.56	0.62	0.59	0.58	0.58	0.58	0.58
World	Journals	25786	26735	27735	28673	30182	32128	33685	35317	36000	36346
	ACG%	-	3.68	3.74	3.38	5.26	6.44	4.84	4.84	1.93	0.96

ACG: Annual Corresponding Growth, GS- Global Share

SCOPUS has distributed all the journals indexed by it into 27 major subject fields, which are further sub-divided into 310 sub-fields.

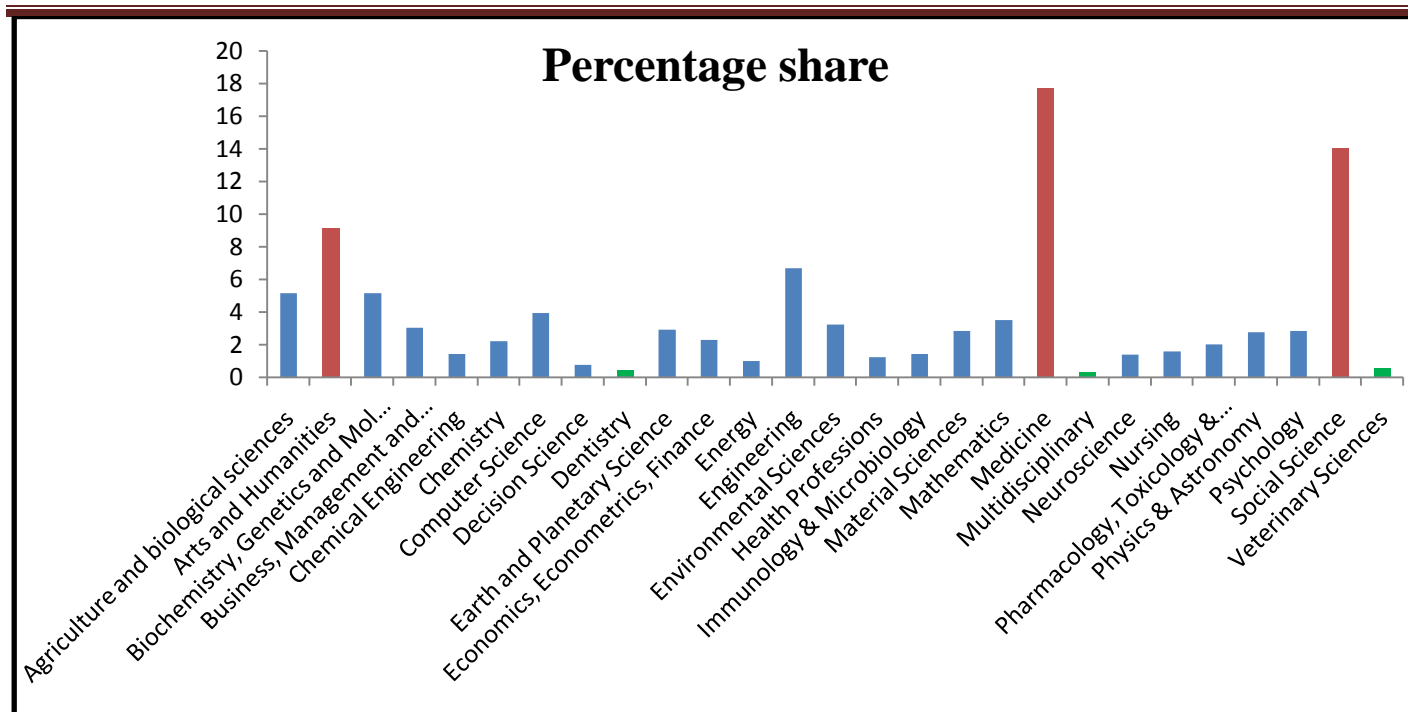


Fig.2: Subject-Wise Share Percentage of Indexed Journals

Medicine, Social Sciences and Arts & Humanities are the three leading subject fields having maximum 17.74%, 14.00% & 9.12% share of journals indexed by the citation index, respectively.

Accordingly, Multidisciplinary journals, Dentistry and Veterinary Sciences are the three categorized subject fields, which have a minimum 0.29%, 0.45% & 0.58% share of journals indexed.

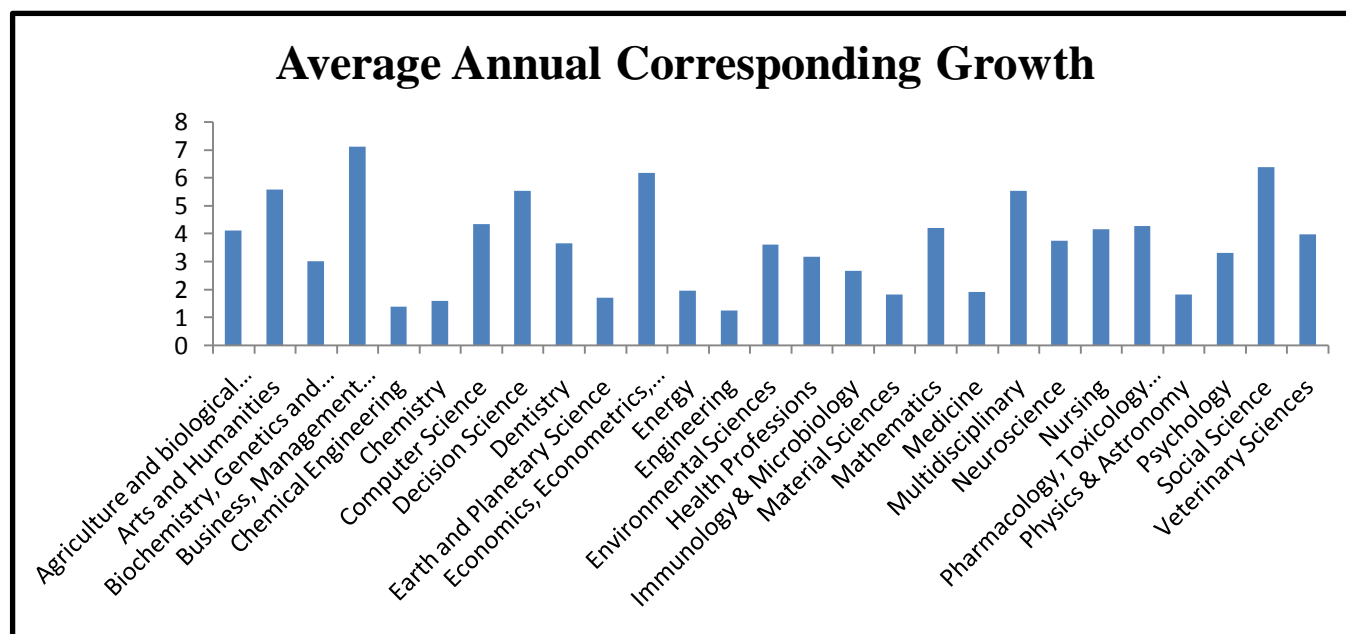


Fig.3: Subject-Wise Annual Corresponding Growth Percentage of Indexing Journals

The Annual Corresponding Growth of journals on the basis of subject area indexed by SCOPUS shows, Business Management & Accounting leading the table with an average ACG of 7.11%, which is closely followed by Social

sciences and Economics, Econometrics, Finance with their individual ACG of 6.38% and 6.18% respectively. The average annual corresponding growth of journals indexed at the global level during the period remained 3.5%. The subject field of

Engineering, Chemical Engineering and Chemistry recorded the lowest 1.25%, 1.39% & 1.60% growth during the period of study. At the global level, a maximum of 6.44% annual corresponding growth in indexing was recorded in the year 2010, which was closely followed by 5.26% indexing growth in the year 2009 and 4.84% each in 2011 & 2012.

DISCUSSION & CONCLUSION

Each individual publisher follows its own set of quality parameters before publishing research results in their research journals. The standards followed by publishers are only to ensure that quality research flows and no compromise is made while making research results public. By following the strict publishing criteria, the research journals over a period of time have assumed a great significance and so do researchers ensure to check the reputation a particular research journal enjoys among his peers before publishing his/her research findings with it. The publishers in turn too ensure that research findings submitted to them for publishing have relevance to their research area, to follow peer review process, to verify of findings, to check authenticity of results etc. resulting into a considerable difference in the popularity each research journal enjoys among the scientific community.

It is always desirable that each popular indexing service provider follows its own set of quality parameters, to be fulfilled by each individual journal before being indexed by it. There is an unprecedented growth in the introduction of new research journals all across the world in almost every subject area. Most of the newly introduced research journals have been found overriding the research standards, are somewhere endangering the production of quality research. Researchers need to be very careful, while choosing a research journal for publishing their research results. Publication phishing is one of the growing impediments in producing the quality research and it is not only the novice researchers, but also the seasoned ones who too fall in their trap. There should be no second thought in it that publishers compromising with the set standards should be blacklisted from the index [34].

The citation indexing platforms are playing a very significant role in maintaining research standards. It is always advisable that authors should

be very careful with choosing the research journal they intend to publish with and there cannot be any platform better than these citation indexes, which have a handy directory of quality and established journals in any given subject area. Researchers can easily choose any quality journal from such indexes to publish their research results. SCOPUS has more than 22000 journals indexed in its database, which makes it a very handy directory to choose any quality research journal to publish with. Apart from these, the citation indexes help a great deal in increasing the visibility of research journals and the research results published in them among the scientific community.

Citation count for each individual research article or research journal varies considerably from one citation index to another. If we look at the number of citations received by an article in SCOPUS and Web of Science, we may find a considerable difference. This difference is purely due to the number of articles, which each individual indexing database has and the number of times an article has been cited in all other articles in that particular database. For example, in SCOPUS we have more than 22000 journals indexed in its database, while as, the Web of Science has nearly 13000 journals indexed in its database, accordingly there is every possibility that the number of citations received by a particular article will be higher in SCOPUS than the number of citations reflected by the Web of Science.

From the above analysis, it is evident that nearly 800-1000 journals from all over the world are indexed each year by the SCOPUS and most of these journals come from Europe, North America and Asia, the three largest continents having a maximum share of journals indexed by SCOPUS. Accordingly, Business Management & Accounting, Social sciences and Economics, Econometrics, Finance are three major subject fields which registered a fair amount of growth in journal registration with SCOPUS.

The scenario of indexing of research journals published from continents like Africa, Australia and South America with SCOPUS data source is not that encouraging. Publishers from all these continents have somewhere to establish themselves as reputed and reliable publishers, so as their journals may easily be indexed by the leading & popular indexes. Similarly, some of the subject fields have a fair

amount of representation in the database, while as a good number of subject areas lack the proportionate representation, which again needs to be worked out so that quality research is timely and easily published across a good number of well recognized research journals, across all the major subject fields. Publishers from less recognized regions have to work harder in gangrening the trust and faith among their local scientific community, which may help in their recognition and gaining popularity as the authoritative and the reliable sources of scientific communication.

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