Scholarly Literature from SAARC (South Asian Association for Regional Cooperation) Nations

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Abstract

Research as a refined method of reflective thinking and a critical and exhaustive method of investigation leads to the real innovation which lead to the growth and development of nation as a whole, understanding the status research in terms of its growth and trends is the basic component for strategic development of nation.The present study attempts to investigate the growth and development of the scholarly literature published by the SAARC Nations. The study is based on the Data harvested from Scopus- one of the largest indexing and abstracting database in the fields of science, technology, medicine, social sciences and arts and humanities .Data congregated encompasses research publications published for the period, 1900- Dec 2013. To achieve the laid down objectives publication were systematically analyzed on the basis of preferred parameters that includes chronology, mode of access, source type, subject area covered and geographical distribution. However, it was observed that certain number of research contributions is accessible in more than one subject area subsequently the calculation done surpasses the actual number of publications. At present 635 research articles are published in academic journals, trade publications book series and conference proceedings that are listed in 25 subject categories. Amid SAARC Nations , India followed by Pakistan and Bangladesh holds first ,second and third rank contributing (499), (97)and (25) with Srilanka and Nepal contributing 7 publications each and no contribution is shown from Afghanistan, Bhutan and Maldives. Furthermore, academic journals are primary medium of scholarly communication for the reason that more than 90% of literature is published through them. However, access to the literature appears to be more constrained since 90% of publication is accessible through commercial mode only.

Keywords: Social Sciences, Scopus, Scholarly Literature

1. Introduction

Research as a fundamental activity promotes the real innovation which leads to the growth and development of nation as a whole. Research has an immense role to play in terms of all round development of a nation whether it be Economic, Social, cultural or Individual. Understanding the status of research contribution of a nation is the basic component for strategic development of nation. The main aim behind every research conducted is its utilization in different processes of society and as a help in further investigation carried out in a particular area. Scholarly communication is the system through which research and other scholarly writings and knowledge are created, evaluated for quality, disseminated to the scholarly community, and preserved for future use. Shafi, S.M (2014) is of the

opinion that research in the form of scholarly journals produced by a country reflects the quality of research being carried out in that part of the world. In scholarly communication process, journal serves as the important vehicle for formal communication. Since the technology has made journal publication easy and undeniably as it gives the researchers a platform to make their research accessible to world at large The genesis of scholarly publications dates back to 17th century when first journal namely De Scavans edited by Denis de Sallo made its way into the world in 1665. Since the inception of the first journal in the scholarly world, scholarly publishing has become a ceaseless affair and with every passing hour something novel is added up. The invention of information technology (IT) has proved a blessing for the scholarly world as it helped to eradicate almost all the barriers that were prevalent in the scholarly world and hindered the flow of scholarly communication process. However the research and developmental activities are picking up more and more in developing nations as compared to those under developed nations. SAARC nations a joint venture for regional, political and economic cooperation of seven nations., Afghanistan Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Srilanka comprising about 3% of the world area and in contrast having about 21% of world population approximately is having a lion share in terms of human resources. Thus keeping in view the above facts, the present study attempts to reveal different trends of research carried out by SAARC nations.

2. Literature Review

Research as a fundamental activity is recognized as a key to knowledge based society and is gaining importance day by day. Every nation developed or developing is promoting research activities as it as acts as an imperative factor in promoting progress of a nation. Acknowledging the significance of research in advancement of society .Shrestha (2007) observe that research is a fundamental activity which is of the essence for advancement in this ever evolving world of opportunities. Moreover, Okafor and Dike (2010) deem that the key endeavor of research is discovering, interpreting, and the development of methods & systems for the advancement of human knowledge on an extensive variety of scientific matters of world & universe. The outcomes thus, stemming from research & development can be used to solve diverse sort of problems that are confronted by the society world over. The ultimate output of research may come in variety of information formats including research publications, which provide a concrete form to the findings or outcome of research. Since, research output is a mean by which scholars, academics, researchers contribute their own knowledge to existing body of knowledge, and these contributions are largely in the form of books, journal articles and reports (Okafor, 2011). Moreover, understanding the status research contribution of a nation is the basic component for strategic development of nation (Buchandiran, 2011). Since, research promotes the real innovation which led to the growth and development of nation as a whole. However, the growth in scholarly literature persists to flourish over each passing day. This uninterrupted hype in the escalation of literature can be related to internet and related technologies that revolutionized process of publishing and disseminating knowledge and information. As is opined by Singh (2009) the advent of information technology and related technologies brought a tremendous change in the

nature, boundaries and structure of information. In terms of mode of scholarly communication Borgman (2003) observed that the number of scholarly journals is growing at far greater rates than ever as compared to other means of publishing.

The heightened pace of scientific and technological activity in recent years makes the evaluation of scientific research in terms of quality as well as quantity more indispensable and an important stake for the future in nations on the periphery of scientific engagement. Refhat, Ali (2014) found that research in the field of social sciences is showing considerable growth over time as researchers are taking initiatives to correlate the field of social science with other fields because its effect is on human lives. United States can be seen as the main contributor with 33.67 publications followed by United Kingdom and Netherlands with 24.47 and 7.92% globally. In another study Refhat, Ali & Jan, 2014, revealed that among SAARC nations only India is making a prominent place with 1.52% followed by Pakistan with 0.3% global production in health sciences. In terms of promoting research by different institutions of a nation, Radmard, Khademi and Azarmaina (2003); Einollahi (2007), suggested that research performance of departments should be evaluated, and based on the star ratings that should be given to the institutions as per their performance as far as research activities are concerned. Whatever the area of research is, the researcher's prime concern should always be promotion of quality research that will consequently lead to the growth and development of a nation.

3. Objectives

- Trace subject development in general as well as specific fields.
- To explore Geographic out put
- To identify source type distribution.
- To identify open access titles available in social science field ,
- To determine the total active titles available.

4. Analysis and Discussion

4.1 Research Output

A total of 635 research publications were available through Scopus amongst which India emerges out to be top contributor with (499, 78.6%) of publications followed by Pakistan (97, 15.27%) and Bangladesh (25, 3.93%). Nepal and Srilanka produced 7 publications each. The nations Afghanistan, Bhutan and Maldives cannot make its presence anywhere, as no contribution was shown by these.

4.2 Subject Covered

4.2.1 Subject Covered (General)

In terms of subject covered research in the field of Health Sciences is much promoted by all nations with a total of 195 publications out of which India contributes 149. After Health Sciences the field of Physical Sciences ranks 2nd with a total of 150 publications followed by life Sciences holding 3rd rank in hierarchy with 124 publications out of total. Table 1 gives more lucid account of subject coverage.

Table 1: Subjects covered – General (n= 635)

Country	Social Sciences	Health Sciences	Life Sciences	Physical Sciences	Multidisciplinary
India	40	149	91	129	90
Pakistan	7	24	27	16	23
Bangladesh	1	13	6	3	2
Nepal	-	7	-	-	-
Srilanka	1	2	0	2	2
Afghanistan	-	-	-	-	-
Bhutan	-	-	-	-	-
Maldives	-	-	-	-	-
Total	49	195	124	150	117

4.2.2 Subjects Covered (Specific)

If we further go into the specific subject coverage it was found that the field of Medicine is most prominent with a total of 173 publications form India followed by Pakistan with 29 publications and Bangladesh with 15. On second rank comes Agricultural and Biological Sciences with 56 publications form India, 27 from Pakistan and 5 from Bangladesh. Some fields like Business management and accounting, Electronics, Nursing, and Psychology etc show meek output. Country wise India showed better research output with Medicine as the leading discipline which contributes a total of 173 publications followed by Pharmacology, Toxicology and Pharmaceutics (57), Agricultural and Biological Sciences (56), Engineering (52) publications. Pakistan however showed better research production in certain fields like Medicine (29), Agricultural and Biological sciences (27), Biochemistry, Genetics and Molecular Biology (9) etc. However it was seen that no contribution was made in the fields of Arts and Humanities, Chemical Engineering, Neuroscience, Physics & Astronomy, Psychology etc. From Nepal only Medicine could make its appearance on the chart with all 7/7 publications in this discipline and none from rest. From Bangladesh major contribution was seen in the field of Medicine (15) followed by Agricultural and Biological Sciences (5) and Nursing (1). Research contribution from Srilanka was more focused towards Environmental Science and Medicine with 2 publications each. Table 2 gives a comprehensive look into the statement.

Table 2: Subjects Covered – Specific

Specific Subject categories	Countries							
	India	Pakistan	Bangladesh	Nepal	Srilanka	Afghanistan	Bhutan	Maldives
General	8	5	-	-	2	-	-	-
Agricultural and Biological Sciences	56	27	5	-	-	-	-	-
Arts and Humanities	12	-	-	-	-	-	-	-
Biochemistry, Genetics and Molecular Biology	46	9	1	-	-	-	-	-
Business, Management and Accounting	19	2	-	-	-	-	-	-
Chemical Engineering	10	-	1	-	-	-	-	-
Chemistry	23	1	-	-	-	-	-	-
Computer Science	12	6	-	-	-	-	-	-
Decision Sciences	1	1	-	-	-	-	-	-
Earth and Planetary Sciences	30	2	-	-	1	-	-	-
Economics, Econometrics and Finance	8	1	-	-	-	-	-	-
Energy	8	-	-	-	-	-	-	-
Engineering	52	6	2	-	-	-	-	-
Environmental Science	47	2	1	-	2	-	-	-
Immunology and Microbiology	12	3	-	-	-	-	-	-
Materials Science	23	1	-	-	-	-	-	-
Mathematics	18	6	-	-	-	-	-	-
Medicine	173	29	15	7	2	-	-	-
Neuroscience	4	-	-	-	-	-	-	-
Nursing	2	4	3	-	-	-	-	-
Pharmacology, Toxicology and Pharmaceutics	57	5	-	-	-	-	-	-
Physics and Astronomy	14	-	1	-	-	-	-	-
Psychology	2	-	-	-	-	-	-	-
Social Sciences	36	8	-	-	1	-	-	-
Veterinary	8	6	-	-	-	-	-	-
Dentistry	6	-	-	-	-	-	-	-
Health Professions	4	1	-	-	-	-	-	-
Total	691	125	29	7	8			

(*The total number of publications varies in this table as some of the research publications are of multidisciplinary nature)

4.3 Source Type Distribution

The literary output by SAARC Nations is published in different source formats like Academic journals, Trade journals, Book Series and Conference Proceedings. Out of total 635 publications, 619 (97.480%) appeared in Academic Journals, followed by Trade publications (13, 2.047 %) and book series (2, 0.31%). Only one publication came in the form of Conference Proceeding and that is contributed from Indian subcontinent. (Table 3)

Table 3: Source type (n=635)

Country	Source type			
	Academic Journals	Trade publications	Book series	Conference proceeding
India	485	12	1	1
Pakistan	96	1	-	-
Bangladesh	25	-	-	-
Nepal	7	-	-	-
Srilanka	6	-	1	-
Afghanistan	-	-	-	-
Bhutan	-	-	-	-
Maldives	-	-	-	-
Total	619	13	2	1

4.4 Chronological Development over Consecutive Decades

Research output showed considerable development in all SAARC nations in the last quarter of 19th century. In some nations like India, Pakistan and Bangladesh the trend of can been seen developed in the decade of 1970's. However nations like Srilanka and Nepal joined much late, in last decade of 20th century. In India research showed tremendous increase during 1971-1980. From 37 publications in 1961-1970 it rose to 67 in 1971-1980. As can be seen in the table research in Pakistan was going tortoise pace till 2000.In the first decade of 20th century it showed soaring growth of 67 publications. Bangladesh joined the research clan in the decade of 1970's; however its research output is not much increased over time. Overall we can say that literature publishing from SAARC nations has increased tremendously in the latter quarter of 20th century. Table 4 gives a comprehensive outlook of the growth of literature.

Table 4: Chronological Growth of Literature (N=635)

Country	=1950	1951-1960	1961-1970	1971-1980	1981-1990	1991-2000	2001-2010	2011-2013
India	12	5	37	67	67	70	189	52
Pakistan	1	0	2	3	1	7	67	16
Bangladesh	0	0	0	2	3	9	10	1
Nepal	-	-	-	-	-	1	6	-
Srilanka	-	1	-	-	-	2	3	1
Afghanistan	-	-	-	-	-	-	-	-
Bhutan	-	-	-	-	-	-	-	-
Maldives	-	-	-	-	-	-	-	-

4.5 Publishing House Imprint

When it comes to publishing house imprints it is evident from the Table no. 5, that majority of the literature published in India comes from different publishing houses (219) followed by Associations/ Federations and Institutions (53 each) and Societies 47. Others like Trusts, Groups, and Forums etc hold a share of 65 publications. In Pakistan most of the research is published by Networks (36) followed by Publishers and Associations & federations with an output of 18 and 12 publications simultaneously. Universities hold the maximum output of 7 publications form Bangladesh followed by Societies and Association & Federations with 5 and 3 publications simultaneously. From Nepal and Srilanka 2 publications each are from Association & Federations, Societies and Institutes. No contribution is shown from Government departments, Academies and colleges and Universities form Bhutan and Srilanka.

Table 5: Publishing House Imprints (N=635)

Country	Publishing imprint										
	Publisher	Association/ federation	Society	Institute	Government department	Academy/ College	Network	Other viz trusts, Groups, fourms,' etc	University	Councils	Total
India	219	53	47	53	11	31	1	65	4	15	499
Pakistan	18	12	6	6	0	3	36	8	8	0	97
Bangladesh	0	3	5	1	0	0	0	8	7	1	25
Nepal	1	1	2	0	0	2	0	0	0	1	7
Srilanka	0	2	0	2	0	0	0	2	0	1	7
Bhutan	0	0	0	0	0	0	0	0	0	0	0
Maldives	0	0	0	0	0	0	0	0	0	0	0
Afghanistan	0	0	0	0	0	0	0	0	0	0	0
Total	238	71	60	62	11	36	37	83	19	18	635

4.6 Active and Non-Active Publications

The lists studied are supposed to openly include active titles , i.e. titles that are currently being indexed for the data base, but the databases also cover titles are no longer published e.g., ceased publication, changed title, merged with another journal , or because the data base producer decide not to cover it any more came to be known as inactive titles . The results noticeably reveals that out of 499 publications from India 106 were in-active or ceased. Pakistan was having 93 publications as active and 4 are non- active. Out of 25 publications from Bangladesh 15 were active and 10 non active. From Srilanka and Nepal 2 out of 7 and 1 out of 7 were inactive simultaneously.

4.7 Open Access-status

It is evident form table 5, that most of the publications came out in commercial mode and very less showed up as Open access. Of 499 titles sources from India, most of the titles (353) were available through commercial publishers and 146 came up as open access. Out of this 146, 136 are registered in DOAJ (Directory of Open Access Journals) and rest 10 was Open access but not DOAJ registered. While 6 titles were available through open access mode form Bangladesh and 19 showed up in commercial mode. Srilanka was having only 1 publication available through Open access mode (DOAJ registered) while rest 6 showed up in commercial mode. Table 5, accounts for Open access status.

Table 5: Open access status (n= 635)

Country	Open Access		Commercial
	OA-DOAJ registered	OA, but not registered in DOAJ	
India	136	10	353
Pakistan	41	1	55
Bangladesh	5	1	19
Srilanka	1	0	6
Nepal	4	0	3
Bhutan	-	-	-
Maldives	-	-	-
Afghanistan	-	-	-
Total	187	12	436

4.8 Idiosyncratic Nature of Publications / Title History Indication

It was seen that some of the titles have not maintained continuity since their inception. In India out of 499, 68 (13.62%) have witnessed title change. From Pakistan only 1 title has shown up with idiosyncratic nature, while rest 95 (98.95%) are running with same titles. 2 out of 25 titles from Bangladesh have witnessed title changes. From Nepal and Srilanka all publications are running with same titles since their inception.

5. Conclusion

The present study provides an overview of the research trends followed in SAARC nations. The analysis done validate that the research done in these nations is showing a gloomy picture. Some of the nations show exemplary growth of literature like India, Pakistan and Bangladesh. Though Nepal and Srilanka have joined the clan but they are still moving at snail pace as far as growth in research is concerned. Countries like Bhutan, Maldives and Afghanistan are not showing a single publication. In terms of research output among the subjects covered under the scope of present study, Health sciences tops the list with 149 papers (30.70%) and in Health Science India has published highest number of 149 papers (70.41%). Much of the research papers 619 have been published in Academic Journals followed by Trade Publications 13 papers and a negligible amount of publications in other two sources viz. Book series (2) and Conference Proceedings(1. Only 13 papers got published up to 1950 taking into consideration all SAARC countries. In decade 1951-1960, 6 papers were published in total by all countries under present study. With each passing decade the amount of published literature also increases especially in the time period of 2001-2010 and its can be forecasted on the basis of the available data that it will further increase in the coming years. In decade 2001-2010, 275 papers were published by all countries which is an indication of enormous growth. Table 5 shows that India has greater number of publishing houses (499) followed by Pakistan (97) and Bangladesh (25). Out of total India contributes (78.58%) of publishing units which is considered as the sound reason for greater publications in India as the greater number of publishing units also creates greater opportunity for paper publishing. Commercial publishing has been the priority of the SAARC nations as India has published 353 papers followed by Pakistan (55 papers) and Bangladesh (19 papers). Open access publishing through DOAJ, the second most utilized publishing platform among SAARC nation, whereas the hierarchy from greater to lowest papers among SAARC nation remain unchanged. Acknowledging the significance of research in advancement of society it becomes evident from the present study that it's high time now to deliberate upon various causes that impede the research activity in the particular field especially in developing nations.

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