



CASE STUDY

OPEN ACCESS PUBLICATION TREND OF TOP UNIVERSITIES IN INDIA: A CASE STUDY
FROM 2011 TO 2015

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ABSTRACT

Open access publication for public funded research has been a demand by scholarly community. Studies shows about the growing publishing trend in open access from Indian scholars. The current study evaluates about the open access publication trend of top 5 central universities of India in the period from 2011 to 2015. The top 5 central universities were identified from the National Institutional Ranking Framework, published by the Ministry of Human Resource Development, Govt. of India for the year 2016. Study was limited to items published as article or review only in journals which are indexed in the Scopus database. The findings of the study shows low share (only 14.37% of total items) of open access published contents from the top 5 universities during the period. Also an analysis of impact of the published contents via citation count reveals that even though the share of open access contents in the published literature were less but the rate of citation of the OA content were higher than that of the paid access contents. Average citation rate to the open access articles from the universities were 6.85 per article, while the same for the paid access items were 5.41 citations per article.

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INTRODUCTION

Open Access to information means *unrestricted access and unlimited reuse* for published contents (Public Library of Science, 2003). Critical discussion about publishing in commercial journals for public funded researches have been made among the scholarly community as the taxpayers had to pay again for accessing those publications. Therefore for having a standard for open access and making it popular among the scholarly community, the first public declaration for open access came out in the year 2002, known as the Budapest Open Access initiative. This initiative defined recommendations (Budapest Open Access Initiative, 2002) for various associated issues of the OA movement to make it a successful one. Later it was followed by Bethesda statement in April 2003 and the Berlin Declaration in October, 2003. All these public declaration have fueled the open access movement all over the world.

Open Access widens the distribution of research literature and lowers costs at the same time, and does so without compromising peer review, preservation, indexing, or the other virtues of conventional publishing (Suber & Arunachalam,

2006). The fruitful benefit and growing citation rate to OA articles have been showed in several studies (Eysenbach, 2006; Swan, 2010) and because of this OA publication all over the world have also seen a rapid growth (Laakso, Welling, Bukvova, Nyman, Björk, & Hedlund, 2011). While in Indian context also, studies shows about the growth of OA journals (Nazim & Devi, 2008) from India, and the establishment repositories supporting open archiving of scientific literature. But for open access to be more successful one in India, it is necessary to see how the top performing institutes of higher education funded by Govt of India is publishing. To have a reality check in this matter, the current study was undertaken, to see the OA publication trend, by the top 5 central universities of India. The National Institutional Ranking Framework(NIRF) was used as a platform for indentifying the top 5 central universities of India.

REVIEW OF LITERATURE

Swapan Kumar Patra (2014) indian library and information science (LIS) journals are not indexed in Web of Science (WoS) database and lately Scopus® database of Elsevier B.V. has indexed three Indian LIS journals. Hence, Google Scholar (GS) is the only available global database for the citation analysis of

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Indian LIS journals. Based on GS, this study has traced the citation and authorship patterns of selected LIS journals. Although, GS covers wide spectrum of scholarly literature worldwide, this study found that Indian LIS journals have low visibility even in GS database. In terms of citations, multiple-authored articles generally got more citations than the single-authored articles. This study suggests LIS researchers to increase collaborations for better visibility of their research.

Dragan Ivanović, Yuh-Shan Ho (2014) This study aims to identify and analyse the characteristics of highly cited articles published in the Information Science and Library Science category in the Social Science Citation Index. Articles that have been cited at least 100 times since publication up to the end of 2012 were analysed. We identified 501 highly cited articles published between 1956 and 2009 in 37 journals. *MIS Quarterly* published 26% of all analysed highly cited articles. The most productive researcher published 11 articles. Six bibliometric indicators were used to evaluate source institutions and countries. The 13 most productive institutions were all located in the USA and Canada. Harvard University in the USA was the most productive institution, ranked number one in the total number of highly cited articles, while the University of Maryland in the USA had the highest publication performance of first and corresponding author articles. Researchers from the USA contributed 67% of highly cited articles.

Dr.S.Parameshwar and Dr. Shankar Reddy Kolle (2016) A bibliometric analysis of articles published in *Annals of Library and Information Studies* for the period from 2006 to 2015 have been undertaken. The data were downloaded from the Indian Citation Index database. This study aims at analyzing the research output performance of Library scientists on library &

individual “Affiliation Search” was made in Scopus for all the top 5 universities. From the search result for the universities, the documents result was limited only to 2011 to 2015 for each university. Again after applying year limit to document search result, it was further limited to Scopus item type “Article” and “Review” and Source type “Journal”. Like that the resulted documents search result contained only articles and reviews published in journal from the universities from 2011 to 2015. From this result, the OA articles were individually selected and a separate list of OA items was prepared for each university using the Scopus list option. Further analysis was carried out on this list of OA items for the universities.

Scope and limitation of the study

The study is limited only to the open access items published as research articles and reviews only in Scopus indexed journals by the top 5 central universities of India. The study only covers those articles which are published in between the time span from 2011 to 2015.

Data analysis and Findings

Objective 1

Table 1 represents the top 5 central universities in India, based on their Overall Score on all the parameters set by NIRF. As the main NIRF ranking included all type of institutions from central funded to state funded, therefore out of the master NIRF ranking, only central government funded were listed, and from there the top 5 is presented in table 1.

Table 2 represents the share of open access published items to the total articles published from all the top 5 central universities of India.

Table 1 Top 5 central universities of India based on OverallScore in NIRF Raking-2016

NIRF rank	Rank among central universities	Name of University	Over All Score (NIRF parameters)	Year of Establishment	State
3	1	Jawaharlal Nehru University	86.45	1969	Delhi
4	2	University of Hyderabad	85.45	1974	Telangana
5	3	Tezpur University	84.31	1994	Assam
6	4	University of Delhi	83.19	1922	Delhi
7	5	Banaras Hindu University	81.22	1916	Uttar Pradesh

Table 2 Share of OA items to total publication in the University publications from 2011-2015 and their citation rate

Univers-ity	Total articles	OA articles	% share of OA articles	Total Citation	Citation only to OA items	Citation only to Paid access	Average citation to OA articles	Average citation to Paid access
JNU	2341	392	16.74	10706	1604	9102	4.09	4.67
HU	2648	290	10.95	14218	1061	13157	3.66	5.58
TU	1314	99	7.53	6708	275	6433	2.78	5.29
DU	5432	929	17.10	38483	11296	27187	12.16	6.04
BHU	4838	672	13.89	22970	2071	20899	3.08	5.02
Total	16573	2382	14.37	93085	16307	76778	6.85	5.41

JNU= Jawaharlal Nehru University; HU= University of Hyderabad; TU= Tezpur University; DU= University of Delhi; BHU= Banaras Hindu University

METHODOLOGY OF THE STUDY

The NIRF-2016 (National Institutional Ranking Framework, Ministry of Human Resource Development, 2016) university ranking list was consulted for identifying the top central universities based on their overall score. Scopus database was used as a data source for the published items. Separate

From 2011 to 2015, there were all total of 16573 items published from the selected universities out of which 2382, i.e. 14.37% articles were in open access form. University of Delhi published highest no of OA contents during the study period, which was followed by Banaras Hindu University. University of Delhi published 929 OA items during the period, while Banaras

Hindu University published 672 OA items. But by comparison based on % share wise, it was Jawaharlal Nehru University, which occupied the second place with its 16.74% OA contents out of total 2341 total published items. Tezpur University published lowest no of OA items, i.e. 7.53% (99 out of total 1314) during the study period.

Objective 2

Citation has always been used as a reflection of quality and impact of scientific papers. It is used for identifying the quality journals as well as quality of research institutions. To have a proper analysis of the real impact of the published OA contents by the university's, the citation gained by the OA contents were compared with the citations gained by the paid access articles.

One of the interesting stat that has been found is that the average citation rate to the OA articles was higher than that of the paid access articles during the study period. The citation rate to the OA articles was 6.85, while the same for the paid access items were 5.41. Because of the higher share of OA items in University of Delhi publications, the citation rate to their OA contents were drastically higher than that of paid access items. For University of Delhi, the citation rate to OA contents was 12.16 citations per paper, while that for the paid access contents were just 6.04 citations per paper. For the other four universities the citation rate to OA contents were less than that of the paid access contents. Fig 1 represents the varying citation rate of OA and paid access published contents.

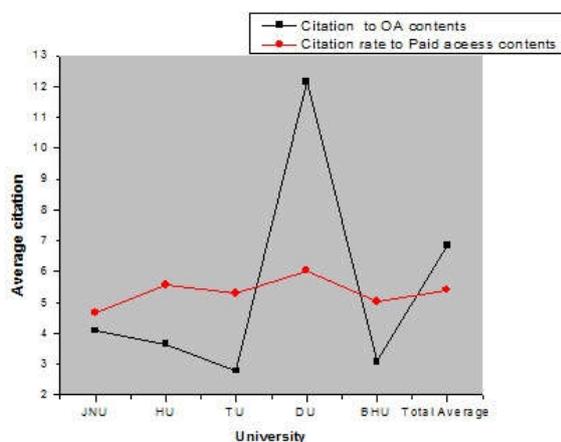


Fig 2 Average citation rate to the of OA and Paid access contents of the universities

CONCLUSIONS AND SUGGESTIONS

The study gives an insight of open access publication scenario of the top 5 central universities of India. The current study identified the open access literature published in journal as research article or review from top 5 central universities of India in the period from 2011 to 2015. Overall in this period only 14.37% of published contents from the top 5 universities were in open access form. It is University of Delhi that has maintained highest share of OA contents to its overall publications, with 17.10% published items as OA content. Even though the publication in OA form was much less compared to publication as paid access contents, the citation rate to OA contents during this period was higher than that of

the paid access contents. Average citation rate to the OA contents were 6.85 citations per paper, while that of the paid access contents were 5.41 citations per paper. It is observed in the study that higher share of OA publication have helped University of Delhi to gain more citations to its OA contents, therefore the average citation rate to its OA contents (12.16 citation per paper) were much higher than that of the paid access contents (6.04 citation per paper).

From the findings of the study it can be concluded that even though different studies shows about the growth of OA journals and repositories in India, but participation of top education institutions in form of OA publication is less and it is required to be increased for open access to be successful in India.

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