

Status of State Health Sciences Universities of India: A Webometric Analysis

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Abstract

Applications of 'Web technology' are a subject of concern in this rapidly changing world where creativity and innovation matter. The main objective of this paper is to present the findings of a webometric analysis of websites of state health sciences universities of India. This study was conducted in September 2018 using Alexa Traffic Rank, Google Page Rank and Google search engine. The results of the study indicated that as per the Alexa Traffic Ranking, Dr. N.T.R. University of Health Sciences and Sri Venkateswara Institute of Medical Sciences universities of Andhra Pradesh State were on the top. Ayush and Health Sciences University of Chhattisgarh lead the list of universities in Google Page ranking system. The Nizam's Institute of Medical Sciences of Telangana State ranked at the top for rich files. The present study provides information to eliminate the barriers to improve websites of state health sciences universities in India to make these websites more effectively fulfil the needs of users.

Keywords: Alexa Ranking, Google Page Rank, Health Sciences Universities, Rich Files, University Ranking, Webometrics

1. Introduction

'Web technology' and its applications are matters of concern in this highly innovative environment. Web technology helps to communicate with each other and provide a way to access the hosted information on the respective websites. It is, therefore, important to assess the kind of information hosted on the website of an organization. It is also important to choose appropriate web technologies to make an organization visible globally. The present study presents a webometric analysis of state health sciences universities of India.

2. Review of Literature

Patel and Parmar (2015) examined the website of All India Institute of Medical Science of India using various webometric methods. The study ranked the seven All India Institutes of Medical Sciences using Google Page Rank, Alexa Rank, and Traffic Distribution

Rank. Tafaraji, Tahamtan, Roudbari and Sedghi (2014) reported a webometric analysis of websites of medical universities of Iran 43. The study was conducted in September 2012 using Majestic SEO, Google, Yahoo and Bing search engines. The findings indicated a significant relationship between webometric ranking and ranking by the Iranian Ministry of Health. This study further indicated that the use of rich files can give a better and more reliable view of university rankings. Shukla and Poluru (2012) conducted a study to analyze the presence of 173 Indian universities on the Internet. This study indicated that critical factors viz. institutional repositories development, open accessibility, academic and research profile, collaboration with other universities and online communities are helpful for improving the visibility of universities. Kothainayaki and Gopalakrishnan (2011) evaluated Agricultural Universities in India using webometrics. Google Page Rank, Alexa Traffic Rank, and rich files were used for evaluation. Jalal, Biswas

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and Mokhopadhyay (2010) conducted a webometrics study that revealed the effectiveness and importance of web impact factor of Indian universities' websites.

3. The Scope of the Study

In this study websites of 18 SHUs (Table 1) were examined:

Table 1. State-wise distribution of health sciences universities

State	University	URL
Andhra Pradesh	Dr. N.T.R. University of Health Sciences	http://www.ntruhs.ap.nic.in
	Sri Venkateswara Institute of Medical Sciences	http://svimstpt.ap.nic.in/
Assam	Srimanta Sankaradeva University of Health Sciences	http://ssuhs.in
Chhattisgarh	Ayush and Health Sciences University	http://cghealthuniv.com/
Haryana	Pt. Bhagwat Dayal Sharma University of Health Sciences	http://www.uhsr.ac.in
Karnataka	Rajiv Gandhi University of Health Science	http://www.rguhs.ac.in
Kerala	Kerala University of Health Sciences	http://www.kuhs.ac.in
Maharashtra	Maharashtra University of Health Sciences	http://www.muhs.ac.in
Orissa	Veer Surendra Sai Institute of Medical Science and Research	http://www.vimsar.ac.in/
Punjab	Baba Farid University of Health Sciences	http://www.bfuhs.ac.in
Rajasthan	Rajasthan University of Health Sciences	http://www.ruhsraj.org
Tamil Nadu	Tamilnadu Dr. M.G.R. Medical University	http://www.tnmgrmu.edu.in

Telangana	Kaloji Narayan Rao University of Health Sciences	https://knruhs.in/public_org/
	Nizam's Institute of Medical Sciences	https://www.nims.edu.in/
Uttar Pradesh	Uttar Pradesh University of Medical Sciences	http://www.upums.ac.in/
	King George's Medical University	http://www.kgmu.org
Uttarakhand	Hemwati Nandan Bahuguna Medical Education University	www.hnbumu.ac.in/
West Bengal	The West Bengal University of Health Sciences	http://www.wbuhs.ac.in

4. Objectives

The objectives of the study are:

- To determine the ranking of university websites using Alexa and Google Page ranking, and
- To find out the rank of the rich files.

5. Methodology

The present study used Alexa Traffic Rank, Google Page Rank and Google search engine for rich files to examine the websites. Alexa Traffic Rank basically audits and makes public the frequency of visits on various websites. It is calculated based on traffic recorded on a particular website by users in a day and in the last three months. Google Page Rank was calculated using website <https://checkpagerank.net/>. The 'page rank' is a trademark and process patented of Google. The rich files of the state health sciences universities in India were calculated from the Google search engine. The examples of the search for rich files are site: www.ntruhs.ap.nic.in, file type: pdf; www.ntruhs.ap.nic.in, file type: ppt; and www.ntruhs.ap.nic.in, file type: doc.

Table 2 indicates that both the Universities of Andhra Pradesh, viz. Dr. N.T.R. University of Health Sciences and Sri Venkateswara Institute of Medical Sciences ranked high, followed by Baba Farid University of Health Sciences of Punjab.

Table 2. Alexa traffic ranks

State	University	Alexa Traffic Rank (as on 30.10.2018)	Rank
State Health Sciences Universities (SHUs)			
Andhra Pradesh	Dr. N.T.R. University of Health Sciences	2962	1
	Sri Venkateswara Institute of Medical Sciences	2962	1
Punjab	Baba Farid University of Health Sciences	7247	2
Maharashtra	Maharashtra University of Health Sciences	8482	3
Rajasthan	Rajasthan University of Health Sciences	9042	4
Karnataka	Rajiv Gandhi University of Health Science	9168	5
Telangana	Kaloji Narayan Rao University of Health Sciences	10285	6
Haryana	Pt. Bhagwat Dayal Sharma University of Health Sciences	15694	7
Kerala	Kerala University of Health Sciences	19276	8
West Bengal	The West Bengal University of Health Sciences	19402	9
Uttar Pradesh	King George’s Medical University	21004	10
Assam	Srimanta Sankaradeva University of Health Sciences	33292	11
Uttarakhand	Hemwati Nandan Bahuguna Medical Education University	39511	12
Telangana	Nizam’s Institute of Medical Sciences	43086	13
Chhattisgarh	Ayush and Health Sciences University	56518	14
Uttar Pradesh	Uttar Pradesh University of Medical Sciences	87519	15
Tamil Nadu	Tamilnadu Dr. M.G.R. Medical University	173451	16
Orissa	Veer Surendra Sai Institute of Medical Science and Research	Not enough traffic data	17

Table 3 shows the universities ranked based on Google Page Rank (GPR), cPR Score and external backlinks. For the purposes of ranking, the GPR is considered and if the GPR is same then cPR Score and external backlinks to the university were considered (higher the external backlinks

higher the rank). Ayush and Health Sciences University of Chhattisgarh State stood 1st in this category, followed by Pt. Bhagwat Dayal Sharma University of Health Sciences of Haryana State and Sri Venkateswara Institute of Medical Sciences of Andhra Pradesh.

Table 3. Google page ranks

State	University	Google Page Rank (out of 10)	Rank
Chhattisgarh	Ayush and Health Sciences University	GPR: 4 cPR Score: 4.1 External Backlinks: 1,00,755	1
Haryana	Pt. Bhagwat Dayal Sharma University of Health Sciences	GPR: 4 cPR Score: 3.8 External Backlinks: 6,924	2
Andhra Pradesh	Sri Venkateswara Institute of Medical Sciences	GPR: 4 cPR Score: 3.8 External Backlinks: 2,477	3
Karnataka	Rajiv Gandhi University of Health Science	GPR: 3 cPR Score: 3.6 External Backlinks: 66,553	4
Uttar Pradesh	King George's Medical University	GPR: 3 cPR Score: 3.5 External Backlinks: 2,388,586	5
Assam	Srimanta Sankaradeva University of Health Sciences	GPR: 3 cPR Score: 3.4 External Backlinks: 7,210	6
Rajasthan	Rajasthan University of Health Sciences	GPR: 3 cPR Score: 3.1 External Backlinks: 36,300	7
Maharashtra	Maharashtra University of Health Sciences	GPR: 3 cPR Score: 3.1 External Backlinks: 32,119	8
Kerala	Kerala University of Health Sciences	GPR: 3 cPR Score: 3.1 External Backlinks: 9,852	9
Uttar Pradesh	Uttar Pradesh University of Medical Sciences	GPR: 3 cPR Score: 3.1 External Backlinks: 571	10
Telangana	Kaloji Narayan Rao University of Health Sciences	GPR: 3 cPR Score: 3.0 External Backlinks: 1253	11
Orissa	Veer Surendra Sai Institute of Medical Science and Research	GPR: 3 cPR Score: 3.0 External Backlinks: 318	12
Tamil Nadu	Tamilnadu Dr. M.G.R. Medical University	GPR: 2 cPR Score: 1.9 External Backlinks: 27	13
Punjab	Baba Farid University of Health Sciences	GPR: 0 cPR Score: 0.0 External Backlinks: 27,965	14
Andhra Pradesh	Dr. N.T.R. University of Health Sciences	GPR: 0 cPR Score: 0.0 External Backlinks: 10,112	15

	Nizam’s Institute of Medical Sciences	GPR: 0 cPR Score: 0.0 External Backlinks: 3470	16
West Bengal	The West Bengal University of Health Sciences	GPR: 0 cPR Score: 0.0 External Backlinks: 3,161	17
Uttarakhand	Hemwati Nandan Bahuguna Medical Education University	GPR: 0 cPR Score: 0.0 External Backlinks: 1,563	18

Table 4 shows the ranking of SHUs based on rich files. In this category, three types of rich files were considered for ranking. They are .DOC (DOCUMENT Files), .PDF (Portable Document Format files) and .PPT (Power Point Presentation Files). The total number of rich files for each

of the SHUs in India is shown in Table 4. Nizam’s Institute of Medical Sciences of Telangana State leads the list of Indian SHUs. Rajiv Gandhi University of Health Science of Karnataka State secured the 2nd position in this category, followed by Kerala University of Health Sciences

Table 4. Number of rich files of state Health Sciences Universities of India

State	University	.pdf	.doc	.ppt	Total	Rank
State Health Sciences Universities (SHUs)						
Telangana	Nizam’s Institute of Medical Sciences	199000	74400	90800	364200	1
Karnataka	Rajiv Gandhi University of Health Science	142000	17300	12500	171800	2
Kerala	Kerala University of Health Sciences	57400	5250	2330	64980	3
Maharashtra	Maharashtra University of Health Sciences	47300	2810	2340	52450	4
Tamil Nadu	Tamilnadu Dr. M.G.R. Medical University	12700	11800	10400	34900	5
Punjab	Baba Farid University of Health Sciences	8810	5090	3690	17590	6
Uttar Pradesh	King George’s Medical University	7650	6410	3210	17270	7
Andhra Pradesh	Dr. N.T.R. University of Health Sciences	7380	4320	778	12478	8
Haryana	Pt. Bhagwat Dayal Sharma University of Health Sciences	3600	2770	1860	8230	9
Rajasthan	Rajasthan University of Health Sciences	3420	3060	8	6488	10
Andhra Pradesh	Sri Venkateswara Institute of Medical Sciences	4100	1550	808	6458	11
Telangana	Kaloji Narayan Rao University of Health Sciences	3120	2240	7	5367	12
Uttarakhand	Hemwati Nandan Bahuguna Medical Education University	2040	1670	1500	5210	13

Assam	Srimanta Sankaradeva University of Health Sciences	2000	1750	1190	4840	14
Chhattisgarh	Ayush and Health Sciences University	1480	681	9	2170	15
Uttar Pradesh	Uttar Pradesh University of Medical Sciences	815	6	7	828	16
West Bengal	The West Bengal University of Health Sciences	266	203	22	491	17
Orissa	Veer Surendra Sai Institute of Medical Science and Research	130	82	59	271	18

6. Conclusion

The present study was limited to websites of SHUs and can further be extended with web contents also. There is scope for future research on these areas. The findings of this study indicated that though SHUs are using web technologies yet their web presence is very limited. Only a few SHUs are giving much thrust on these factors and it is suggested that SHUs should improve their websites so that their visibility is enhanced. SHUs should add more valuable content on their websites.

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