

Webometric Study of Non Agricultural University Websites of Maharashtra State

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Abstract - The article examines the websites of Non-Agriculture University of Maharashtra State. The study is to do the webometric analysis of Non-Agriculture university of Maharashtra state. This study was conducted based on the data collected during December 2020 to February 2021. It was found that all University in Maharashtra has their update websites. The data were analyzed to find out to evaluate the efficiency of this university website in terms of Global Rank, website audience, and Marketing Channels. The study is done based on the parameters determined by similar web.

Keywords: Webometric, Website audience, Global Rank, Channels overview, Search Traffic.

Introduction

The World Wide Web (WWW) allows computer users to position and view multimedia-based documents (i.e., documents with text, graphics, animations, audios and/or videos) on almost any subject. Even though the Internet was developed more than three decades ago, the introduction of the WWW was a relatively recent event. In 1989, Tim Berners-Lee of CERN (the European Laboratory for Particle Physics) developed the World Wide Web and several communication protocols that form the backbone of the WWW. The Internet and the World Wide Web will surely be listed among the most significant and profound creations of humankind. In the past, most computer applications ran on standalone computers. (i.e., computers that were not connected to one another) Today's applications can be written to communicate among the world's hundreds of millions of computers. The Internet makes our work easier by mixing computing and communications technologies. It makes information immediately and conveniently accessible worldwide. It makes it possible for individuals and small businesses to get worldwide contact.

Non-Agriculture Universities are considered holy institutions where education is imparted among the masses. Therefore, anything affiliated or developed by Non-Agriculture University should have a positive impact. This is the era of information & technology; people tend to access the information online rather than visiting the place physically. Much of the information about universities is placed on their websites, and these websites are visited by the students, scholars, and researchers etc to gather the information. How effective a website is and how efficiently it is catering the needs of users is indicated by certain parameters like how frequently a website is visited, how much time is spent on it by a user, how much content is downloaded from it etc. Evaluating a website against such parameters is termed as webometric analysis.

Conceptual Analysis

Webometrics

In the area of Bibliometric the volume of webometrics is greatly increased. The technique of studying the relationship between different sites is adopted in Bibliometric which is called scientific Mapping in Bibliometric research. The science of webometrics (also cyber metrics) tries to measure the World Wide Web to get knowledge about the number and types of hyperlinks, structure of the World Wide Web and usage patterns. The definition of webometrics is "the study of the quantitative aspects of the construction and use of information resources, structures and

technologies on the Web drawing on bibliometric and informatics approaches (Wikipedia, 2021)."

The term webometrics has been defined as "the study of web-based content with primarily quantitative methods for social science research goals using techniques that are not specific to one field of study", which emphasizes the development of applied methods for use in the wider social sciences. The definition focused on webometric as a tool to help publicize appropriate methods pushing the borders of possibilities of webometric studies in social sciences. Even the term webometrics was coined by Tomas Almind and Peter Ingwersen in 1997 and defined as "The study of web-based content with primarily quantitative methods for social science research goals, using techniques that are not specific to one field of the study" (Ingwersen, 1997). Hence webometric is the study tool in this online environment to evaluate the efficiency and efficacy of website in projecting and impacting its respective audiences.

Objectives of Study

The following are the major objectives of this study.

1. To Measure the Global and Indian Rank of Non-Agriculture University websites.
2. To calculate total visits and traffic share by monthly visits, avg. visit duration, daily Page per view & Bounce rate onsite.
3. To calculate the total sites linking in and search engine visits.

Scope & Limitation of Study

The current web metric study is confined to the Non-Agriculture University of Maharashtra State. There are a total number of 13 (10 Non-Agriculture University +1 Open University +01 special Sanskrit university+ 1 special woman's University) Non-Agriculture University in Maharashtra. The data collected is confined during December 2020 to February 2021.

Methodology

The data were extracted from 13 (10 Non-Agriculture University +1 Open University +01 special Sanskrit university+ 1 special Woman University) Non-Agriculture University in Maharashtra. Website during December 2020 to February 2021. All the websites are evaluated based on the parameters determined by similar web website.

Review of Related Literature

Zahidwani & UbaidUllahshas (2019) in conference paper webometric analysis of university websites of Jammu & Kashmir, India. The study aims to evaluate the efficiency of these websites in satisfying the needs of its different users like students, researchers, professors etc. (Ullahshas, 2019)

Ali Mardani-Nejad, FarshidDanesh, Hossein Saadat, Seyyed Mohammad Reza Darbani (2009) websites content quality of Iranian university of technology a webometrics study in this study is to analyse websites content quality in Iranian University to technology. (Ali Mardani-Nejad, 2009) Meisam Dastani, Somayeh Panahi & Masoumeh Sattari (2019), in their study analyzed the websites ranks on Iranian medical sciences universities in the period of 11 September 2016 to March 2017. It was performed on webometrics method which contains 41 websites of Iranian medical sciences universities. (Dastani, 2019)

Deshmukh R.K., (2019), Webometric Analysis Agriculture University Websites for Maharashtra State analysed the websites of Agriculture Universities of Maharashtra. (Deshmukh R.K. Vol 6 (10), 2019)

Data Analysis

Maharashtra Non- Agriculture University

The information on all functions and activities of the all Non-Agriculture University's is provided through the following channels and websites. The analysis of the website has also been included.

TABLE I UNIVERSITY AND WEBSITE NAME

Sl. No.	Name of University	University web site	Sector
01	Swami RamanandTeerth Marathwada University, Nanded	www.srtmun.ac.in	Non-Agriculture University
02	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad	www.bamu.ac.in	Non-Agriculture University
03	Mumbai University, Mumbai	http://mu.ac.in/	Non-Agriculture University
04	RashtrasantTukadojiMaharaj Nagpur University, Nagpur	https://www.nagpuruniversity.ac.in	Non-Agriculture University
05	KavayitriBahinabaiChaudhari North Maharashtra University, Jalgaon	http://www.nmu.ac.in/	Non-Agriculture University
06	SavitribaiPhule Pune University	http://www.unipune.ac.in/	Non-Agriculture University
07	SantGadge Baba Amravti University, Amravati	https://www.sgbau.ac.in/	Non-Agriculture University
08	Shivaji University, Kolhapur	http://www.unishivaji.ac.in/	Non-Agriculture University
09	Smt. NathibaiDamodarThackersey Women's University, Mumbai	https://sndt.ac.in/	Women's University
10	PunyasholkAhilyadeviHolkar, Solapur University, Solapur	http://www.sus.ac.in/	Non-Agriculture University
11	YashwantraoChavan Maharashtra Open University, Nashik	https://www.ycmou.ac.in/	Open University
12	Gondwana University, Gadchiroli	https://unigug.ac.in/	Non-Agriculture University
13	KavikulaguruKalidas Sanskrit University, Ramtek, Nagpur	http://kksanskrituni.digitaluniversity.ac/	Sanskrit University

It was found that the State with the most Non-agricultural universities is Maharashtra with the total number of 13 (10 Non-Agriculture University +1 Open University +01 special Sanskrit university +1 special woman's University).

All Maharashtra Non-Agriculture University website is the official website of the respective Non-Agriculture University, Maharashtra State. The website content is available in English and Marathi.

Global Rank

On analyzing the data, it was found that Non- Agriculture University of Maharashtra is ahead of all other universities in terms of both Global Rank. The Website Global ranking analysis found that Savitribai Phule Pune University website was Highest Searchable website. Savitribai Phule Pune University Global Rank 22322 and Indian rank 1211 and Educational category rank 12 in world ranking. Mumbai University, Mumbai is world rank 68993 and followed by Sant Gadge Baba Amravati University, Amravati, Educational Category Ranking was 162.

TABLE II GLOBAL & INDIAN RANK

Sl. No.	University web site	Global Rank	Country Rank (Indian)	Category Rank (Education)
1	www.srtmun.ac.in	325749	16775	363
2	www.bamu.ac.in	380091	20771	471
3	http://mu.ac.in/	68993	3659	48
4	https://www.nagpuruniversity.ac.in	420738	21659	1174
5	http://www.nmu.ac.in/	302351	15569	335
6	http://www.unipune.ac.in/	22322	1211	12
7	https://www.sgbau.ac.in/	173364	9161	162
8	http://www.unishivaji.ac.in/	210179	11155	222
9	https://sndt.ac.in/	821523	43329	2032
10	http://www.sus.ac.in/	929444	48936	1144
11	https://www.ycmou.ac.in/	498726	25465	583
12	https://unigug.ac.in/	1011283	52487	2366
13	http://kksanskrituni.digitaluniversity.ac/	No data available		

Total Visits – website audience (December 2020 to February 2021)

Visitor hits to the website is a very remarkable criterion in evaluating the popularity of the organization /institution itself reflected by way of the number of visitors. Sum of all visits for the selected period December 2020 to February 2021 is shown in the table no-3 showing the total visits website audience following chart

TABLE III WEBSITE AUDIENCE

Sl. No.	University web site	Total Visits	Monthly visits	Monthly unique visitors	Avg. Visits Duration	Pages visits	Bounce Rate %
1.	www.srtmun.ac.in	676934	225645	61451	00:04:43	4.27	34.82
2.	www.bamu.ac.in	250585	83528	40348	00:04:56	7.50	41.98
3.	http://mu.ac.in/	2.744M	914922	348007	00:04:46	3.62	44.86
4.	https://www.nagpuruniversity.ac.in	330459	110153	54921	00:04:48	2.98	61.72
5.	http://www.nmu.ac.in/	446038	148679	52008	00:04:54	3.94	44.95
6.	http://www.unipune.ac.in/	5.605M	1.868M	600352	00:06:48	6.88	32.36
7.	https://www.sgbau.ac.in/	767191	255730	60579	00:03:41	3.18	39.30
8.	http://www.unishivaji.ac.in/	629967	209989	70569	00:02:33	3.18	39.30
9.	https://sndt.ac.in/	115553	38518	23706	00:03:19	2.96	51.28
10.	http://www.sus.ac.in/	96254	32085	17876	00:02:48	4.30	47.36
11.	https://www.ycmou.ac.in/	218257	72752	44685	00:02:52	4.65	49.46
12.	https://unigug.ac.in/	78655	2618	11541	00:03:01	2.66	48.64
13.	http://kksanskrituni.digitaluniversity.ac/	19358	6453	<5000	00:11:02	7.31	22.50

On analyzing the data, it was found that the institutional website of Kavi kulaguru Kalidas Sanskrit University, Ramtek, Nagpur 19358 (22.50%) has got maximum visits to its website and average duration times per day was 11.02 mints. Users also stay on the website for longer duration, followed by Savitribai Phule Pune University 5.605M (32.36%) is viewed visits of website last three months and average duration times per day 06.48 mints. Even the User visit duration considerably showed the user inclination towards these universities in getting information from their websites.

Searching Platform

Percent of incoming traffic from desktop Vs. mobile web searching Platform following Chart

TABLE VI DESKTOP AND MOBILE SEARCH PLATFORM

Sl. No.	University web site	Desktop%	Mobile web%
1	www.srtmun.ac.in	12.53	87.47
2	www.bamu.ac.in	29.99	70.01
3	http://nu.ac.in/	27.22	72.78
4	https://www.nagpuruniversity.ac.in	19.29	80.71
5	http://www.nmu.ac.in/	28.06	71.94
6	http://www.unipune.ac.in/	34.38	65.62
7	https://www.sgbau.ac.in/	6.01	93.99
8	http://www.unishivaji.ac.in/	29.24	70.76
9	https://sndt.ac.in/	21.98	78.02
10	http://www.sus.ac.in/	22.55	77.45
11	https://www.ycmou.ac.in/	16.80	83.20
12	https://unigug.ac.in/	28.83	71.17
13	http://kksanskrituni.digitaluniversity.ac/	17.70	82.30

In the search form the user is searching for the website through the Desktop or Mobile. While checking the incoming traffic as evident from the table IV it was found that Mobile Searching was the most preferred means as compared to Desktop search. It was recorded highest 93.99% user who searched Amravati university website searched through the use of mobile web. On a comparative basis it was found that mobile web search out passed desktop search of the website in case of all universities. In case of Desktop search Savitribai Phule Pune University topped it with 34.38%.

Visitors over Time

Table V shows that during December 2020 to February 2021 website search volume by the trend of visits over the selected time period. Visitor time shows the search times of university websites from December 2020 to February 2021, in which users searched Non-agricultural universities during three months, the website of the university Pune recorded showed the largest volume of time devoted by the users.

Geographical Distribution

The data related to website visits has been analyses based on the countrywide search. The geographical distribution of search profile for the website is given in Table VI.

TABLE V VISITORS OVER TIME

Sl. No.	University web site	Visitors over Time		
		Dec-2020	Jan-2021	Feb-2021
1	www.srtmun.ac.in	416361	180770	97557
2	www.bamu.ac.in	69011	119498	62077
3	http://mu.ac.in/	992079	1.55M	696983
4	https://www.nagpuruniversity.ac.in	131717	118992	79750
5	http://www.nmu.ac.in/	171054	152201	122782
6	http://www.unipune.ac.in/	2.488M	1.478M	1.638M
7	https://www.sgbau.ac.in/	291519	202033	273639
8	http://www.unishivaji.ac.in/	244859	190026	195081
9	https://sndt.ac.in/	39401	43049	33103
10	http://www.sus.ac.in/	35838	37277	23139
11	https://www.ycmou.ac.in/	119601	53770	44885
12	https://unigug.ac.in/	34068	15264	29323
13	http://kksanskrituni.digitaluniversity.ac/	8795	<5000	5610

TABLE VI GEOGRAPHICAL WISE ANALYSIS

Sl. No.	University web site	Countries				
		India	United States	China	Brazil	Pakistan
1	www.srtmun.ac.in	97.67%	21%	41%	38%	0
2	www.bamu.ac.in	97.34%	38%	0	0	22%
3	http://mu.ac.in/	93.28%	2%	0	0	29%
4	https://www.nagpuruniversity.ac.in	97.64%	39%	0	0	0
5	http://www.nmu.ac.in/	96.48%	1%	0	0	9%
6	http://www.unipune.ac.in/	96.06%	98%	36%	0	0
7	https://www.sgbau.ac.in/	98.80%	17%	0	0	0
8	http://www.unishivaji.ac.in/	96.70%	56%	0	20%	0
9	https://sndt.ac.in/	94.83%	2%	0	0	0
10	http://www.sus.ac.in/	96.11%	3%	0	0	0
11	https://www.ycmou.ac.in/	98.18%	84%	0	0	0
12	https://unigug.ac.in/	99.16%	0	0	0	0
13	http://kksanskrituni.digitaluniversity.ac/	93.01%	7%	0	0	0

As evident from table VI as an obvious finding the country with highest search hits was India Table VI. It is important to note that about 12 out of the 13 universities of Maharashtra got search hits from USA. Even Savitribai Phule University and SRTM Nanded University got search hit from China. Even Brazil and Pakistan were also the countries which show search hits for few of universities amongst the total 13 Non-Agricultural Universities of Maharashtra.

Channels Overview (Marketing Channels)

Following Table VII is showing the different medium used in searching the respective websites of the studied 13 Non-Agricultural Universities of Maharashtra.

TABLE VII CHANNELS OVERVIEW

Sl. No.	University web site	Direct	Email	Referrals	Social	Organic Search	Paid Search	Display Ads
1	www.srtmun.ac.in	25.29	5.35	2.93	0.33	65.66	0	0.33
2	www.bamu.ac.in	35.4	1.01	0.99	0.05	62.18	0	0.37
3	http://mu.ac.in/	43.65	1.69	0.74	1.3	52.58	0	0.03
4	https://www.nagpuruniversity.ac.in	68.32	0	1.45	0	30.23	0	0
5	http://www.nmu.ac.in/	17.82	1.71	2.86	0.22	77.28	0	0
6	http://www.unipune.ac.in/	30.46	2.23	5.86	1.39	60.06	0	0
7	https://www.sgbau.ac.in/	28.78	1.38	0.97	0.16	70.18	0	0
8	http://www.unishivaji.ac.in/	27.32	1.38	0.97	0.16	70.03	0	0.15
9	https://sndt.ac.in/	25.21	0	4.48	0	70.31	0	0
10	http://www.sus.ac.in/	0	0	0	0	0	0	0
11	https://www.ycmou.ac.in/	11.25	0	4.73	2.06	91.96	0	0
12	https://unigug.ac.in/	41.42	24	7.18	0.04	50.91	0	0.21
13	http://kksanskrituni.digitaluniversity.ac/	37.14	0	19.88	0	42.97	0	0

It was found that direct visit and organic searches were the most preferred means of browsing through the University website. Various others mediums like Email, referrals, social media, etc. were also used though the frequency of its use was bare minimum.

Conclusion

Websites play an important role in determining the capacity of the organizations to meet the needs of the users and to understand their demands. The purpose of the present study is to evaluate the websites of Maharashtra state Non- agricultural university. From this study it was found that Savitribai Phule Pune University website is doing much better than other universities websites in terms of bounce rate. Overall there is a trending pattern to visit university websites for all the academic as well as administrative work as well as to get details about various processes and facilities. Savitribai Phule University holds the top position in terms most of the evaluative parameters of judging the efficiency and efficacy of a university website. This also reflects the popularity as well as growing importance of that particular university.

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