Web Content Analysis of Library Websites of NAAC Accredited "A" Grade Universities in Maharashtra State, India

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Abstract: *Website is the most popular and effective tool for information exchange and dissemination of information to end user. University library website plays an important role in providing accurate and up-to-date information of library. The purpose of this research paper to analyze the content of library information provided on the library websites of universities in Maharashtra. Study help to measure accuracy and usability of library websites by using different dimension of content analysis.*

Keywords: Content analysis, Web Analysis, Library websites, Universities in Maharashtra, NAAC

I. INTRODUCTION

The emergence of Information and Communication Technology has tremendous change in the role of library and information professionals. The universities of any state are the main source of higher education. Most of the students and research scholars prefer the universities for their higher education because of the reputation and educational infrastructures and facilities as well as mainly on their educational services like highly educated and experienced faculty and availability of vast reading resources in university library.

For any educational institution and educational universities, library websites play an important role for information exchange and as a communication medium with the end user. Also it plays an important role for information dissemination and information retrieval. Nowadays every university has their own virtual existence in the form of website to provide various information like services, resources, facilities and latest research updates etc. about university. University library website/webpage useful in information communication and sharing of information about library, information of collection, library services, resources, scholarly research information required for user. Due to technological advancement the design and development of websites increasing day by day hence the websites are becoming more interactive and popular for quick and easy access and dissemination of information globally. Also it acts as information gateway for library user, so it is very essential and necessary to analyse and evaluate the website and content.

II. REVIEW OF LITERATURE

There are significant numbers of research work that have been conducted on the content analysis of different universities in India. Barman, Dhiru (2021) discussed a Ranking of Library Websites of Agricultural University of India. From study it is found that 100% of the library websites provide information about the Library and information about Book, Print Journals, Reference Sources, Back Volumes, Newspapers and Thesis. Yumnam, Gyanajeet and Singh, Ibohal (2021) in his study, it is found that all the library websites of central universities of North East India have information about library, library hour, membership, services and e-resources. Pandey, Bhaw (2020) evaluated 22 Central and State University Library Websites in Bihar. Study show that the near about fifty percent of library websites provides information of library services on their library website. Nilesh, Kumar and Shilpi, Verma (2018) has conducted a study on content analysis of library websites of NAAC accredited 'A' Grade university in central zone of India. Study show that all library websites gives the information about Reference service, Reprographic Service, Current addition/New Arrivals, Information Desk and Internet Access Service in their websites. It also found that most

of the library websites has provided information of collection of books and Journals in their websites. Savitha (2016) gives the finding that all deemed university library websites of Karnataka state gives the information about books, journals and information about subscribing e-journals, e-books, and e-databases. Panneerselvam, P. (2015) analyze 23 Universities Website in Tamilnadu and study shows that in Chennai, Tamilnadu has most number of universities i.e. 8 and most of the university websites providing basic information about library.

III. SCOPE AND LIMITATIONS OF THE STUDY

The present study is confined to examine the content of seven (7) NAAC accredited "A" Grade University Library websites of Maharashtra state.

Table-I: List of NAAC Accredited "A" Grade Universities in Maharashtra

Sr. No.	University Name	Location	Estd. Year	University URL	NAAC Grade
1	University of Mumbai	Mumbai	1857	https://mu.ac.in/	A++
2	Shreemati Nathibai Damodar Thackersey Women's University	Mumbai	1916	https://sndt.ac.in/	A
3	Rashtrasant Tukadoji Maharaj Nagpur University	Nagpur	1923	https://www.nagpuruniversity.ac.in/	A
4	Savitribai Phule Pune University	Pune	1949	http://www.unipune.ac.in/	A+
5	Dr. Babasaheb Ambedkar Marathwada University	Aurangabad	1958	http://www.bamu.ac.in/	A
6	Shivaji University	Kolhapur	1962	https://www.unishivaji.ac.in/	A++
7	Kavayitri Bahinabai Chaudhari North Maharashtra University	Jalgaon	1991	http://nmu.ac.in/en-us/	A

Table- II: List of Universities with University Library URL

Sr. No.	University Name	Abbreviations	Library URL
1	University of Mumbai	MU	https://mu.ac.in/knowledge-resource-centre
2	Shreemati Nathibai Damodar Thackersey Women's University	SNDTU	https://sndt.ac.in/library/
3	Rashtrasant Tukadoji Maharaj Nagpur University	RTMNU	https://www.nagpuruniversity.ac.in/index.php/Contentpage/index/RS84cHZ1cEdTZnhTWlZFPQ%3D%3D/en
4	Savitribai Phule Pune University	SPPU	http://lib.unipune.ac.in:8002/
5	Dr. Babasaheb Ambedkar Marathwada University	BAMU	http://www.bamu.ac.in/default.aspx?alias=www.bamu.ac.in/krc
6	Shivaji University	SU	https://www.unishivaji.ac.in/library/
7	Kavayitri Bahinabai Chaudhari North Maharashtra University	KBCNMU	http://nmu.ac.in/knowledge_resource_center

IV. OBJECTIVES OF THE STUDY

The main objectives of the Content Analysis of Library Websites of NAAC Accredited "A" Grade Universities in Maharashtra, India are

- To know the basic information of university websites and their functionality
- To know the general information of university library available in library websites
- To find out the availability of library collection in university library websites
- To know the available services and e-resources in the selected university library websites
- To identify the use of social networking sites in Library websites

V. RESEARCH METHODOLOGY

For the study, the data have been collected through the survey and observation methods from the websites of selected seven NAAC accredited "A" grade university libraries in Maharashtra, India. For the data collection the checklist is prepared on the basis of previous studies. Further the collected data has been analysed and tabulated for the analysis and interpretation.

VI. DATA ANALYSIS AND INTERPRETATION

Classification of Website by Domain Extension

Table-III shows that the classification of domain extensions used in website URL of the university websites in Maharashtra. All the seven university websites have .ac.in domain extensions for their website.

Table- III: Classification of Website by Domain Extension

Sr. no.	Domain Extension	No. of Universities	Percentage
1	.ac.in	7	100%

Accessibility of Library Website

Table-IV shows that the only 42.86% Universities provides direct link of library page on parent home page and reaming 57.14% 4 of the websites provides library page link on under the facilities, students or other menu.

Table-IV: Accessibility of Library Website

Sr. No.	Accessibility of Library Website/WebPages	Frequency	Percentage
1	Direct Link on Parent Home Page	3	42.86%
2	Link under Facilities, Student or other menu etc.	4	57.14%

Website Language

Table-V revels that the 57.14% (4) of the library websites using only English language in their website while 42.86% (3) university library website uses both English and Marathi language in their website for the content design.

Table-V: Website Language

Sr. No.	Features	MU	SND TU	RTM NU	SP PU	BA MU	SU	KBC NMU	Total	Percentage
1	English	√	√	X	√	√	X	X	4	57.14%
2	English & Marathi	X	X	√	X	X	√	√	3	42.86%

Note: For Yes (√) and for No (X)

General Library Information

Table-VI shows the general information of library available in university website. It is found that 100% university library gives the information about library, library services, and their contact details. 85.71% library gives the information of Library Staff while 71.42% libraries provide information of vision & mission and library membership. It is also found that 57.14% libraries showing information about of library sections, library rule and regulations, Notifications/News& Events and Library Committee. 42.86% libraries give the information of library hours, Library floor Plans, Photo Gallery and FAQ. Only 28.57 % library websites provides the information about library objectives in their library page.

Table-VI: General Library Information

Sr. No.	Features	MU	SND TU	RTM NU	SP PU	BA MU	SU	KBCN MU	Total	Percentage
1	About Library	√	√	√	√	√	√	√	7	100 %
2	Vision & Mission	√	√	X	X	√	√	√	5	71.42 %
3	Objectives	X	√	X	X	√	X	X	2	28.57 %
4	Library Hours	X	X	√	X	√	√	X	3	42.86 %

5	Floor Plan	X	X	√	X	√	√	X	3	42.86 %
6	Library Sections	√	X	√	X	√	√	X	4	57.14 %
7	Library Rules & Regulations	X	X	√	X	√	√	√	4	57.14 %
8	Library Services	√	√	√	√	√	√	√	7	100 %
9	Library Staff	√	X	√	√	√	√	√	6	85.71 %
10	Membership	X	X	√	√	√	√	√	5	71.42 %
11	Notifications/News & Events	√	X	X	√	√	√	X	4	57.14 %
12	Library Committee	X	X	√	√	√	√	X	4	57.14 %
13	Photo Gallery	X	X	X	X	√	√	√	3	42.86 %
14	FAQ	X	√	X	√	√	√	X	3	42.86 %
15	Contact Details	√	√	√	√	√	√	√	7	100 %
	Total	7	5	10	8	15	14	8		

Note: For Yes (√) and for No (X)

Information about Library Collection

Table-VII shows the Information about Library Collection available in university website library page. It is found that 100% university library gives the information about library Books, Journal and Back volumes collection. 85.71% library gives the information of Thesis, Audio/Video/CD/DVDs and Manuscripts while 42.86% libraries provide information of Catalogue and Newspaper Clipping Collection. It is also found that 28.57% libraries giving information of Dissertation, Reports, Faculty Publications and Pamphlets collection in university library. Only 14.28 % libraries give the information of Maps, Rare Collections and Standards in their university library.

Table-VII: Information about Library Collection

Sr. No.	Features	MU	SNDTU	RTMNU	SPPU	BAMU	SU	KBCNMU	Total	Percentage
1	Books	√	√	√	√	√	√	√	7	100 %
2	Journals	√	√	√	√	√	√	√	7	100 %
3	Dissertations	X	√	X	X	X	√	X	2	28.57 %
4	Thesis	√	√	X	√	√	√	√	6	85.71 %
5	Reports	X	√	X	X	X	√	X	2	28.57 %
6	Audio/Video/CD/DVDs	√	√	X	√	√	√	√	6	85.71 %
7	Manuscripts	√	X	√	√	√	√	√	6	85.71 %
8	Maps	X	X	X	√	X	X	X	1	14.28 %
9	Faculty Publications	X	X	X	√	√	X	X	2	28.57 %
10	Rare Collections	X	X	X	√	X	X	X	1	14.28 %
11	Back Volumes	√	√	√	√	√	√	√	7	100 %
12	Catalogue	√	√	X	√	X	X	X	3	42.86 %
13	Newspaper Clipping	√	√	X	√	X	X	X	3	42.86 %
14	Standards	X	√	X	X	X	X	X	1	14.28 %
15	Pamphlets	X	√	X	√	X	X	X	2	28.57 %
	Total	8	11	5	11	7	8	6		

Note: For Yes (√) and for No (X)

Information about Library Services

Table-VIII revel the Information about Library Services available in university library website page. It is found that 100% university library website gives the information of services like OPAC/Web PAC, Reference Services,

Reprographic Service, Book Lending (Issue-Return) Service and Reading Room. 85.71% library gives the information of Bibliographic Service, Anti Plagiarism Check Service, Internet Access Service and Orientation/User Education services while 71.42% libraries provide information of New Arrival/Alert Service and Interlibrary Loan Service. It is also found that 42.86 % library website gives the information of Current Awareness Service. Only 14.28 % libraries give the information of SDI Service and Institutional Repository in their university library website.

Table-VIII: Information about Library Services

Sr. No.	Features	MU	SND TU	RTM NU	SP PU	BA MU	SU	KBCN MU	Total	Percentage
1	OPAC/WebOPAC	√	√	√	√	√	√	√	7	100%
2	Reference Service	√	√	√	√	√	√	√	7	100%
3	Reprographic Service	√	√	√	√	√	√	√	7	100%
4	Bibliographic Service	X	√	√	√	√	√	X	6	85.71%
5	Book Lending (Issue-Return) Service	√	√	√	√	√	√	√	7	100 %
6	Reading Room	√	√	√	√	√	√	√	7	100%
7	Document Delivery Service (DDS)	X	X	√	X	√	X	X	2	28.57%
8	Anti Plagiarism Check Service	√	√	√	X	√	√	√	6	85.71%
9	Current Awareness Service	√	X	X	X	√	X	√	3	42.86%
10	SDI Service	X	X	X	X	√	X	X	1	14.28%
12	New Arrival/Alert Service	√	√	√	X	X	√	√	5	71.42%
13	Interlibrary Loan Service	√	√	√	√	X	X	√	5	71.42%
14	Institutional Repository	X	√	X	X	X	X	X	1	14.28%
15	Internet Access Service	X	√	√	√	√	√	√	6	85.71%
16	Orientation/User Education	√	√	√	√	√	X	√	6	85.71%
	Total	**11**	**12**	**13**	**10**	**12**	**9**	**12**		

Note: For Yes (√) and for No (X)

Information about E-Resources

Table-IX revel that 100% university library website gives the information about EBooks, E-Journals and E-databases. 85.71% library gives the information of Bibliographic Database while 71.42% libraries provide information about Remote Access. It is also found that 57.14 % library website gives the information of ETD. 28.57% library website provides the information about Subject Gateways and Online Catalogue. Only 14.28% libraries give the information of Institutional Repository (IR) in their university library website.

Table-IX: Information about E-Resources

Sr. No.	Features	MU	SND TU	RTM NU	SP PU	BA MU	SU	KBC NMU	Total	Percentage
1	E-Books	√	√	√	√	√	√	√	7	100 %
2	E-Journals	√	√	√	√	√	√	√	7	100 %
3	E-Database	√	√	√	√	√	√	√	7	100 %
4	Bibliographic Database	X	√	√	√	√	√	√	6	85.71%
5	Institutional	X	√	X	X	X	X	X		14.28%

IJARSCT

ISSN (Online) 2581-9429

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Impact Factor: 7.53

Volume 5, Issue 2, January 2025

	Repository (IR)									
6	Subject Gateways	X	√	√	X	X	X	X	2	28.57%
7	ETD	X	√	√	√	√	X	X	4	57.14%
8	Remote Access	√	√	X	√	√	√	X	5	71.42%
10	Online Catalogue	√	X	X	√	X	X	X	2	28.57%
	Total	**5**	**8**	**6**	**7**	**6**	**5**	**4**		

Note: For Yes (√) and for No (X)

Use of Social Networking

Table-X shows that the use of social networking site in university library websites. It is found that only 28.57% university library websites using and integrating face book, Twitter, LinkedIn and YouTube in their university library website.

Table-X: Use of Social Networking

Sr. No.	Features	MU	SND TU	RTM NU	SP PU	BA MU	SU	KBC NMU	Total	Percentage
1	Face book	√	X	√	X	X	X	X	2	28.57 %
2	Twitter	√	X	√	X	X	X	X	2	28.57 %
3	LinkedIn	√	X	√	X	X	X	X	2	28.57 %
4	You tube	√	X	√	X	X	X	X	2	28.57 %
	Total	**4**	**0**	**4**	**0**	**0**	**0**	**0**		

Note: For Yes (√) and for No (X)

VII. FINDINGS

- All the seven university websites have .ac.in domain extensions for their website.
- 42.86% university library website uses both English and Marathi language in their website.
- Only 42.86% Universities provides direct link of library page on parent home page
- 100% university library website gives the information about library, library services, and their contact details and 57.14% libraries shows information about of library sections, library rule and regulations, Notifications/News& Events and Library Committee.
- 100% university library provides the information about library collections library Books, Journal and Back volumes and only 28.57% library website give information of Dissertation, Reports, Faculty Publications and Pamphlets.
- 100% university library website gives the information of services like OPAC/Web PAC, Reference Services, Reprographic Service, Book Lending (Issue-Return) Service and Reading Room while 85.71% library gives the information of Bibliographic Service, Anti Plagiarism Check Service, Internet Access Service and Orientation/User Education services
- 100% university library website gives the information about E-Books, E-Journals and E-databases but only 14.28% libraries give the information of Institutional Repository (IR) in their university library website
- Only 28.57% library websites using and integrating social networking sites like face book, Twitter, LinkedIn and YouTube

VIII. CONCLUSION

The present study evaluates the content of NAAC accredited library websites of seven universities in Maharashtra. Form the study it is found that most of libraries provide information about library services which is very useful to user. Out of seven libraries only Pune University and Solapur University provides most useful general library information on the website. Only SNDT university Mumbai and Pune University library websites gives all the information about library collection and information about E-resources while Mumbai university and RTMNU university Nagpur library websites gives the information of interactivity with social networking sites. Furthermore the study suggests that the

universities like RTMNU, KBCNMU and MU needs some improvement in providing more information regarding library, information of Collection, and E-resources. Also all the libraries needs to improve their content time to time on websites as per the user requirement.

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