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WEB PRESENCE AND STRUCTURE EVALUATION OF THE EUROPEAN NATIONAL LIBRARIES' WEBSITES: A STUDY

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Abstract

The purpose of this study is to evaluate European national libraries' websites on the basis of webometrics. It also analyze the structure of the selected European national libraries' websites on the basis of number of checkpoints. On the basis of number of web indicators such as number of webpages, in-links, rich content files, publications in Google Scholar and WISER, web presence of the selected European national libraries' websites were examined. For collection of webometrics data Google search engine and Check PageRank tool were used. To evaluate structure's attributes, a checklist was drafted which is based on published literature and guidelines. This paper highlights that most of the European national libraries have sound web presence having large number of webpages, in-links and rich content files. It also reveals that most of the European national libraries' websites have users' friendly structure except few national libraries' websites. Therefore, there is a need to conduct regular observation to find out the utility of website among users' group.

Keywords: Webometrics Analysis, Website Evaluation, National Libraries, WISER

Introduction

National Libraries are the symbol of an elegant society. A national library is not only viewed as a source of national pride but also act as an icon of nationhood. It is the place where all the published information of a nation can be located. Development of World Wide Web offers opportunities to access information from anywhere by anyone at any time. It reformed the information seeking behavior of users at a great level. Use of Information and Communication Technologies (ICT) in libraries were started from library catalogue and now reaches to the each small and big activity of the library. Libraries are designing their websites to communicate with users through online mode. Use of

ICT in libraries is preferred by both, library professionals as well as users as it save lots of time, money and efforts. A website is the electronic face of a library and it is considered as an electronic front door to a library because users first want to visit a website before making their physical visit to a library.

Review of Literature

With increasing users' demands and changing information seeking behavior of the users, libraries have faced a challenge to develop a website which is more users' friendly and users' oriented. The responsibility to develop a website which is more informative as well as users' friendly is not an easy task. For this regular evaluation of a website is very important. Abdul and Ismail (2013) evaluated public universities' websites in Malaysia and used Google search engine and Majestic SEO for collection of data. The study reveals that websites of the public universities in Malaysia did not have sound presence on the web. Author also line up reasons for low web presence which includes traditional method of publishing, use of low standard information resources by the faculty members and limited access to the institutional repository of the institution. Jalal, Biswas, and Mukhopadhyay (2010) examined web visibility of Asian countries. For collection of data, they used Altavista, Google and MSN search engine. In this study, ranking was based on two methods, first was the web impact factor and another one was WISER method. The study found that the Japan had higher visibility on the web in comparison to other Asian countries. Another study examined the web visibility of selected national libraries' websites. For collection of data, Zeinolabedini, Maktabifard, and Osareh (2006) used Alta Vista. The authors applied cluster and multidimensional scaling map to show collaboration among the selected websites of national libraries. The study shows that the websites of national libraries of African Continent have less collaboration with others national libraries' websites of the world. Onuancha (2012) showed status of the national libraries' websites on the web pertaining to their visibility, impact and linkages. For data collection Alexa and Alta Vista was used. The study highlighted that almost half of the national libraries of the World did not have their own websites. The national libraries which do have their own websites recorded low web impact on the web. Majority of the in-links on the selected national libraries' websites were reported from wikis as well as websites which belong to the library and related institutions.

During the evaluation of the uploaded content and designs of the websites of the European national libraries, Pisanski and Zumer (2005) revealed that European national libraries' websites had uploaded

a common core of content and followed available design guidelines while designing the structure of their websites. The authors also found that the European National libraries of the economically better and developed countries had greater websites in terms of the following available guidelines, whereas national libraries of the Eastern and Southern European countries fare slightly worse. Booth and Napier (2003) investigated uploaded content and navigation features on the website of the National Library of New Zealand. During the evaluation, it was found that the users gradually expected to be interacting with organisations through online mode to access its services over the internet. Mohamadesmaeil and Kohbanani (2012) examined Iran National Library's website with the help of checklist which was based on review of literature. The study highlights that the design of the website of a National Library of Iran was totally based on functions that support the national library's major aims, especially in information retrieving as well as rendering public information services.

Objectives of the Study

- i. to conduct the webometrics analysis of selected European national libraries' websites.
- ii. to find out ranking of selected European national libraries' websites based on WISER.
- iii. to examine the structure of European national libraries' websites of the World covered under study.

Scope of the Study

The present study examines the web appearance of the European national libraries which are general in nature. The national libraries of specific subject were exempted. There are forty three European countries which are the members of United Nations. After exploring the available literature, directories and doing a bottle neck search on the internet, it was found that all the nations have a designated national library (Appendix). After data analysis, it was found that among the forty-three European national libraries; only forty-two European national libraries had a website. It was the National Library of Monaco which did not have a website among the European nations. The present study selected all the European national libraries' websites which were available in English and having a comprehensive English version of the website. Out of forty-two European national libraries' websites, the study selected only eleven websites as ten websites used other than English language, twenty websites did not have a comprehensive English version and one national library did not have a separate website.

Table 1: List of Selected European National Libraries' Websites

Name of the Country	Name of National Library	Website
Cyprus	Cyprus Library	www.cypruslibrary.gov.cy
Czech Republic	National Library of the Czech Republic	www.nkp.cz/
Denmark	Royal Library: The National Library of Denmark and Copenhagen University Library	www.kb.dk
Finland	National Library of Finland	www.kansalliskirjasto.fi
Ireland	National Library of Ireland	www.nli.ie
Latvia	National Library of Latvia	www.lnb.lv
Macedonia	National and University Library (NUL) "Ss. Kliment Ohridski"	www.nubsk.edu.mk
Portugal	National Library of Portugal	www.bn.pt
Switzerland	Swiss National Library	www.nb.admin.ch
Ukraine	Vernadsky National Library of Ukraine	www.nbuv.gov.ua
United Kingdom	British Library	<u>www.bl.uk</u>

Research Methodology

For the webometrics analysis of European national libraries' websites, data regarding the following web indicators have been collected and analyzed:

- Number of webpages: it shows the size (S) of the website. Data concerning the number of webpages was collected through advance search enquiry in Google Search Engine using their required search expression. The search expression was "site:library.com"
- Number of in-links: it represent the visibility (V) of the website. In-links data were collected using the PageRank Checker (checkpagerank.net) tool.
- Number of rich content files: in this study data regarding the following Rich Files (R) doc.,docx., ppt., pptx, xls., xlsx., pdf. were collected with the help of Google search engine by following search expression: "site:library.comfiletype:pdf".
- Number of documents/citations in Google Scholar (Sc.): it provides number of papers and citation of each domain of national library website.

The data for each web indicator was collected twice, first in the month of July 2014 and again in the month of March 2015. Data was collected twice to view changes on the selected European national libraries' websites during the period of study.

To examine the structure of the European national libraries' websites, a checklist was drafted which is based on published literature. The relevant data was collected in the month of July and August 2014.

Data Analysis

In this study, data analysis have been done in two major parts:

- i) Webometrics analysis: it is a quantitative study of web and its resources. Table 2 shows the data regarding following web indicators:
 - a. Number of webpages
 - b. Number of in-links
 - c. Number of rich content files
 - d. Number of citations in Google Scholars

Table2: Web Indicators of European National Libraries' Websites

		Webpages	(S)]	In-Links (V	V)					R	ich Fil	es (R)					Goo	ogle Scholar	(Sc)
National Library of-	Jul-14	Mar- 15	Average	Jul-14	Mar- 15	Average	doc	xl s	Pdf	pp t	Total	doc	xl s	Pdf	P pt	Total	Avera ge	Jul-14	Mar-15	Average
Cyprus	1,550	1,720	1,635	7,840	3,753	5,796.50	15	0	131	2	148	17	0	148	1	166	157	0	0	0
Czech Republic	36,40,0 00	36,30,0 00	36,35,000	26,01,3 53	23,43,3 21	24,72,33 7	167 2	16 8	4370 0	61 1	46151	154 1	18 2	3980 0	55 3	42076	44,113. 50	145	160	152.5
Denmark	19,80,0 00	20,50,0 00	20,15,000	6,53,17 7	6,31,95 5	6,42,566	47	7	12	12	78	50	7	1160 00	16	116073	58,075. 50	1,493	1,530	1,511.50
Finland	4,06,00 0	10,70,0 00	7,38,000	99,664	1,62,75 2	1,31,208	141	16 6	5620	31 2	6239	252	13 0	6450	21 9	7051	6,645	992	1040	1016
Ireland	19,00,0 00	17,90,0 00	18,45,000	1,66,27 5	1,56,55 6	1,61,415 .50	1	0	311	0	312	0	0	328	0	328	320	0	0	0
Latvia	1,15,00 0	75,500	95,250	3,32,39 8	2,95,63 1	3,14,014 .50	107	9	5450 0	8	54624	485	27	5530 0	11	55823	55,223. 50	7	7	7
Macedonia	964	1,010	987	1,22,58 3	1,07,99 8	1,15,290 .50	1	0	94	1	96	0	0	94	1	95	95.5	0	0	0
Portugal	10,50,0 00	3,64,00 0	7,07,000	2,15,63 4	1,95,03 4	2,05,334	32	0	2850	5	2887	30	0	2830	4	2864	2,875.5 0	2998	3160	3079
Switzerland	1,37,00 0	1,35,00 0	1,36,000	7	10	8.5	0	1	821	0	822	0	1	854	0	855	838.5	2	2	2
Ukraine	23,70,0 00	18,60,0 00	21,15,000	5,33,38 8	4,54,37 5	4,93,881 .50	606	1	6440 00	78	644685	138	1	2940 00	98	294237	4,69,46 1	1,63,000	1,54,000	1,58,500
United Kingdom	47,80,0 00	81,70,0 00	64,75,000	88,984	1,04,79 6	96,890	248	8	1510 0	45	15401	177	10	1750 0	39	17726	16,563. 50	2,45,000	2,64,000	2,54,500

Number of webpage shows the size of a website. All the European national libraries had sound web presence with a ample number of webpages uploaded on their websites. The British Library which is the National Library of UK hold the top most position with 64,75,000 webpages (average) followed by National Library of Czech Republic with 36,35,000 webpages (average). The website of National Library of Macedonia came on the bottom rank in the European Continent with 987 webpages followed by the website of Cyprus Library with 1,635 webpages.

Number of in-links represents recognition of a website in their users' community. Analysis shows that all the European national libraries' websites were highly recognized by the external World. Maximum number of in-links were received by the website of National Library of Czech Republic (24,72,337) followed by the National Library of Denmark (6,42,566) and Ukraine (4,93,881.5). Least number of in-links was received by the website of National Library of Switzerland (8.5) though it had very informative website followed by the National Library of Cyprus (5,796.5) and UK (96,890).

Above Table depicts that all the European national libraries uploaded less information in the form of rich content files. Maximum number of rich content files was noticed on the website of National Library of Ukraine followed by the website of National Library of Denmark and Latvia. Least number of rich content files was found on the website of National Library of Macedonia followed by National Library of Cyprus and Ireland.

Most of the domain of European national libraries' websites received hits in the Google Scholar. Maximum number of citations was received by the website of National Library of UK, followed by the National Library of Ukraine.

Ranking of European National Libraries' Websites on the basis of WISER

WISER stands for 'Web Indicators for Scientific, Technological and Innovation Research'. WISER is a combined web indicator which is based on number of web indicators such as number of in-links, webpages, rich content files and publications/citations in Google scholar for ranking of the websites. The formula of WISER rank is as follow:

WISER Rank (position) = 4*RankV + 2*RankS + 1*RankR + 1*RankSc.

V= stands for visibility, measured on the basis of number of in-links

S= stands for size, measured on the basis of number of webpage

R=stands for rich content files, measured on the basis of rich files (pdf, doc, xls and ppt)

Sc. = stands for scholar measured on the basis of number of publication in Google Scholar

Later, this formula is revised and the modified formula is as follow:

WISER Rank= log (Visibility 50%) + log (Size 20%) + log (Rich files 15%) + log (Scholars 15%)

Table 3: WISER Ranking of the European National Libraries' Websites

National Library of-	V (50%)	Log (V)	S (20%)	Log (S)	R (15%)	Log (R)	Sc. (15%)	Log (Sc.)	WISER Value	Ran k
Cyprus	2898.2 5	3.46	327	2.514	157	2.195	0	Infinity	8.172	X
Czech Republic	123616 9	6.09	72700 0	5.861	44113. 5	4.644	22.875	1.359	17.957	IV
Denmark	321283	5.50 6	40300 0	5.605	58075. 5	4.763	226.725	2.355	18.231	III
Finland	65604	4.81 6	14760 0	5.169	6645	3.822	152.4	2.182	15.991	VI
Ireland	80707. 75	4.90 6	36900 0	5.567	320	2.505	0	Infinity	12.979	VIII
Latvia	157007 .3	5.19 5	19050	4.279	55223. 5	4.742	1.05	0.021	14.239	VII
Macedonia	57645. 25	4.76	197.4	2.295	95.5	1.98	0	Infinity	9.0361	IX
Portugal	102667	5.01 1	14140 0	5.15	2875.5	3.458	461.85	2.664	16.285	V
Switzerland	4.25	0.62 8	27200	4.434	838.5	2.923	0.3	-0.522	7.463	XI
Ukraine	246940 .8	5.39	42300 0	5.626	469461	5.671	23775	4.376	21.066	I
United Kingdom	48445	4.68 5	12950 00	6.112	16563. 5	4.219	38175	4.581	19.598	II

^{*} Log value is *defined* only for x>0. If the x is 0 the word infinity comes.

Table 3 highlights the status of the European national libraries' websites on the basis of their WISER value. It was the website of National Library of Ukraine with 21.066 WISER value scored the top most position which also had third position with regards to number of webpages and in-links, and first position with regards to the number of rich content files. It was the website of National Library of UK with 19.598 WISER value came on second position, followed by National Library of Denmark (18.231). In the bottom, the website of the National Library of Switzerland came with 7.643 WISER value. It also had least number of in-links in the European Continent which shows that WISER method bring out more representative and reliable picture in comparison to the web impact factor which is biased towards smaller number of webpages and in-links.

ii) Structure Evaluation

Structure evaluation helps to test usability and friendliness of a website. Users' friendly structure of a website helps easy access of information. In the below table different aspects of structure evaluation are listed with the availability and non-availability on each website of European national library.

Table 4: Structure Evaluation of the European National Libraries' Websites

Attrib utes	National Library of-	Cy pr us	Czech Republ ic	Den mar k	Fin lan d	Ire lan d	La tvi a	Mac edon ia	Por tug al	Switz erlan d	Uk rai ne	United Kingdo m
Author	Webmaster	×	✓	✓	×	×	×	✓	×	×	1	✓
ity (3)	Copyright	×	✓	✓	×	✓	✓	✓	✓	✓	✓	✓
	Policy Statement	✓	✓	✓	×	✓	×	×	×	✓	×	✓
URL	Short URL	×	✓	✓	×	✓	✓	✓	×	✓	✓	✓
(3)	URL Work with or without WWW	×	✓	✓	✓	✓	✓	✓	✓	×	✓	✓
	URL Used Country' Top Level Domain	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Windo w Title	Homepage Window Title began with Library name	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(3)	Each Webpage have Specific Window Title	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Irrelevant Word not used in Window Title	×	✓	×	×	×	✓	✓	✓	✓	✓	×
Curre ncy (3)	Updation Date on Homepage	✓	×	×	×	×	✓	×	×	✓	×	×
	Updation Date on Each Webpage	×	✓	×	×	×	✓	×	×	✓	×	×
	Date when Content Added	×	✓	✓	✓	×	×	×	×	×	✓	×
Page Layout	Consistent Header	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(6)	Consistent Footer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Font Consistency	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Same Background Colour	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Minimum Vertical Scrolling	✓	×	×	✓	✓	✓	×	✓	✓	×	×
	No Horizontal Scrolling	✓	✓	✓	✓	✓	✓	✓	✓	✓	1	✓
Accessi bility	Link to Homepage on Homepage Avoid	×	×	×	✓	×	×	×	×	×	×	✓
(6)	Website Load Quickly	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Option Available for Text Resizing	×	×	✓	✓	×	×	×	×	×	×	×
	Option Available for High Contrast	×	×	×	×	×	×	×	×	×	×	×
	No Dead Link	×	✓	×	✓	✓	✓	✓	√	✓	×	×

	No Under construction Webpage	✓	✓	✓	✓	✓	✓	✓	×	✓	×	✓
User Friend	Avoid Technical Jargon	×	×	×	×	×	×	×	×	×	×	×
ly	Short Heading	×	×	✓	√	✓	✓	√	✓	✓	✓	✓
Conten t Writin	Avoid Labelling of Self Defined Area	×	✓	✓	×	✓	✓	✓	✓	×	×	✓
g (6)	Avoid Content Duplication	×	×	×	×	×	×	×	×	×	×	×
	Month Specified in Word Form	×	✓	✓	×	×	×	✓	✓	✓	×	✓
	Printer Friendly Layout	✓	✓	✓	1	✓	✓	×	✓	✓	×	✓
Use of Multi	Use of Graphics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
media	Avoid Watermark	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(6)	Use of ALT Tab	✓	✓	✓	✓	✓	✓	✓	✓	✓	1	✓
	Use of Height and Width	✓	✓	✓	✓	✓	✓	✓	✓	×	✓	✓
	Use of Animation	×	✓	×	×	×	✓	✓	×	×	✓	✓
	Mechanism to Pause Animation	×	✓	×	×	×	✓	√	×	×	×	✓
Naviga tion	Site Index	×	×	×	×	✓	×	×	×	×	×	×
Tools	Sitemap	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
(6)	Site Search	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Change Visited Link Color	×	✓	×	×	×	×	×	×	✓	×	×
	Link to Homepage on each Webpage	✓	✓	√	✓	✓	✓	√	√	√	✓	✓
	Path Information	×	✓	✓	✓	✓	✓	✓	×	✓	×	✓
Multili ngual (1)	Multilingual	✓	✓	✓	\	×	>	√	✓	√	✓	×
Usage Statisti cs (1)	Usage Statistics	×	×	×	×	×	×	×	×	×	×	×
44	G.T.	23	34	30	27	28	32	30	26	30	25	30

Quality of information always depends on its authenticity. Table 4 shows that only three out of eleven European national libraries uploaded all features of authority on its' websites. These national libraries belong to the National Library of Czech Republic, Denmark and United Kingdom. It was the National Library of Finland which did not host any feature of authority on its website. Data analysis shows that seven out of eleven European national libraries had incorporated each selected attribute of qualitative URL on its' websites and they scored full points. Each European national library used country's top level domain name in the URL of its website. Eight websites had simple and short URL address and

majority of the URL address of European national libraries worked with and without prefix of WWW except websites of National Library of Cyprus and Switzerland.

Analysis of data shows that six out of eleven European national libraries uploaded all attributes of window title on its' websites which increase chance to retrieve a website through search engine. All the European national libraries had informative as well as specific window title for each webpage of the website. Use of irrelevant words was frequently observed in the window title of the European national libraries' websites. Updation date on the homepage was uploaded only by three national libraries' websites and updation date on each webpage of the website was found on three national libraries i.e. National Library of Czech Republic, Latvia and Switzerland. National Library of UK which is one of the prominent national library of the World, did not have any feature of currency on its website. Date when the content was added on the website was equally important as the last update date on the homepage. This information was uploaded only by the National Library of Czech Republic, Denmark, Finland and Ukraine.

All the European national libraries had consistency in header, footer, font and background colour of the website. Six out of eleven European national libraries used minimum vertical scrolling and none of the European national library used horizontal scrolling on the homepage of its website. Examine the accessibility of the website, it was found that only two websites of national libraries avoided link to homepage on the homepage. When loading speed of the websites were checked, it was observed that all websites loaded something within eight second time period. Only two national libraries' websites had text resizing option i.e. National Library of Denmark and Finland. None of the European national library's website had changing contrast option. Most of the European national libraries i.e. seven out of eleven regularly monitor the functionality of links and removed dead links on its' websites. Majority (9 out of 11) of European national libraries' websites avoided uploading of under construction webpages. All the European national libraries frequently used technical terms of library science on its' websites. Data analysis shows that label of heading was not crisp on two out of eleven European websites of national libraries i.e. National Library of Cyprus and Czech Republic. Labelling of a section which is self-explanatory was found on four European national libraries i.e. National Library of Cyprus, Finland, Switzerland and Ukraine. Content duplication on the homepage of the website was found on each European national library. To overcome confusion between date and month, six out of eleven European national libraries spell out date in word form on their websites. Data analysis also highlights that nine national libraries uploaded printer friendly layout of its' websites.

Use of graphics was found on each website of national library. They also avoided watermarks and defined ALT Tag. Most of the national libraries used Height and width Tag except National Library of Switzerland. Use of animation was noticed on five websites of European national libraries. Among them, only four national libraries' websites uploaded a mechanism to pause an animation as and when required. Analysis of data highlights that all the European national libraries had site map, site search and link to homepage navigation on the websites. Use of website index was observed only on the National Library of Ireland. Change visited links color navigation was noticed only on two European national libraries' websites i.e. National Library of Czech Republic and Switzerland. Use of path navigation was found on eight European national libraries' websites. Only nine European national libraries uploaded information content in two or more than two languages on its' websites. Majority of national libraries' websites i.e. seven offered information and content in two languages. For example National Library of Cyprus used Cyprus (primary language) and English, National Library of Czech Republic used Czech (primary language) and English, National Library of Denmark used Dansk (primary language) and English, National Library of Finland used Finnish (primary language) and English, National Library of Latvia used Latvian (primary language) and English, National Library of Macedonia used Macedonian (primary language) and English and National Library of Portugal used Portuguese (primary language) and English. The National Library of Switzerland was the only one which had uploaded information and content on its website in four languages i.e. Deutsch (primary language), French, English and Italian. The National Library of Ukraine uploaded information and content in more than five languages on its website. Data analysis shows that none of the European national library uploaded usage statistics on the homepage of its website.

As seen from Table 4, the website of National Library of Czech Republic attained maximum scores i.e. 34 out of 44 among the European national libraries. The website of Czech Republic uploaded most of the criterion of structure analysis such as authority, URL, window title, page layout, multimedia, navigation, multilingual etc. The least number of points was scored by the website of National Library of Cyprus 23 out of 44 points. The British Library which is the national library of UK holds third rank with 30 out of 44 points. It missed the top most position as its website did not upload updation date, usage statistics and content of the website is available only in English.

Findings of the Study

The findings are the outcome of a research process. In the present study, findings are group into two parts which are as follows:

1. On the basis of webometrics analysis the major findings are as follows:

- a. The website of National Library of United Kingdom has biggest website with highest number of webpages (36% webpages in the European Continent) followed by the website of National Library of Czech Republic and Ukraine with 21% and 12% webpages.
- b. The website of National Library of Czech Republic has highest visibility with 53% inlinks among European national libraries' websites followed by the website of National Library of Denmark and Ukraine with 14% and 11% in-links.
- c. The website of National Library of Ukraine has uploaded highest number of rich content files (72%) followed by the website of National Library of Denmark and Latvia with 9% and 8% rich content files.
- d. The website of National Library of United Kingdom has highest score in the Google Scholar (i.e. 61%).
- e. The website of National Library of Ukraine has obtained highest WISER value with highest number of rich content files, second highest number of Google publication and third highest number of webpages and in-links. Hence, it grasps the top most rank in the European Continent. The second position is hold by the British Library which is the National Library of UK, followed by the website of National Library of Denmark.

2. On the basis of the Structure Analysis

The website of National Library of Czech Republic has highest usability attributes i.e. 34 out of 44. It represents that the structure of the website of National Library of Czech Republic is more users' friendly and users' centered. The second rank is taken by the website of National Library of Latvia with 32 out of 44 points, followed by four websites jointly shared third rank in the European Continent i.e. National Library of Denmark, Macedonia, Switzerland and UK. The National Library of Ukraine with 25 out of 44 points comes at bottom position among the European national libraries' websites because of absence of updation date, accessibility features, number of navigation tools etc. Hence, it

can conclude that the structure of the website of National Library of Ukraine does not have good usability features.

SUGGESTIONS OF THE STUDY

Based on findings of this study, the following suggestions are recommended:

On the basis of webometrics study, the following suggestions are recommended:

- National Libraries having less number of webpages should upload comprehensive information and content on their websites which ultimately will increase number of webpages. It will also improve WISER value of a website.
- ii. National libraries' websites having less number of in-links should build sound relations with external World to increase their in-links. For promotion of website, the webmaster can contact with various national governments, state governments, public libraries, academic libraries, national and international library associations and other similar institutions. National libraries should also upload information in multiple languages.
- iii. To improve quality of uploaded information and effective presentation of information, maximum information should be uploaded in rich content files.
- iv. The number of documents produced by Google Scholar has been recently used as a web indicator for ranking and evaluating of a website. National Libraries need to understand the importance of this scholarly literature. They should enhance quality of uploaded information on websites so that more number of citation can be receive which ultimately increase the reputation and impact of a website.

To make the website more users' oriented and to enhance the usability of the uploaded content on the websites, following suggestions pertaining to the structure of a website are recommended:

- i. Authority brings reliability among users towards information uploaded on the website. National libraries which did not upload authority attributes on its' websites should incorporate it as early as possible.
- ii. A short and simple URL address is easy to remember and recall. National libraries' websites having lengthy URL address should modify it as early as possible.

- iii. By using country's top level domain in its web address, national libraries can represent the nation in the cyber world. Use of country's top level domain in URL address represents that an institution is a government body which create positive image of an institution.
- iv. A URL address should work with or without the prefix of WWW as it ultimately increases accessibility of the website.
- v. Window title play significant role in searching of the website through search engines. National libraries should have a simple and straight forward window title to the homepage of the website. Use of unnecessary words like a, an, the, .com etc. should be avoided as it does not add any meaning and unnecessary increase size of the window title. Each webpage of the website should have specific window title to distinguish it with the homepage and other webpages of the website.
- vi. The websites should be uploaded with latest information. Currency of information should be established by uploading up-dation date on the homepage as well as each important webpage of the website.
- vii. With the provision of options for changing text size and contrast of the font, national libraries can increase accessibility of the websites. Under construction webpage should not be incorporate into the website.
- viii. Use of technical terms on the websites should be avoided. Use of these terms should be properly defined. For example national libraries can upload a glossary of technical terms used on the website.
- ix. Homepage is the index page of a website. To index maximum information with the homepage, duplication of content on the homepage should be avoided.
- x. To safe space on the homepage, labelling of self-define areas should be avoided. For example there is no need to label the symbol of Facebook, Twitter and calendar etc. on the homepage of the website.
- xi. To avoid confusion between dates with month, national libraries should spell out the month in word form on their websites.
- xii. Use of multimedia helps to communicates information more easily and effectively. At the same time web designers should keep in mind that use of too much elements of multimedia on the website can affect its accessibility. Hence, it should be used in limited number. The height and

- width tag help in the downloading of image. Thus, national libraries should specify these tags on their websites.
- xiii. Navigation features increase usability of the website. It helps to know where we were, where we are and where we can go on a website. Therefore, maximum navigational features should be incorporated on the website. National libraries should list all available navigation features on the homepage and subsequent webpages of the website.
- xiv. The websites of national libraries should be multilingual. It helps to increase number of visitors on the website. At least national libraries' websites should upload all information and content on the websites in two languages i.e. one is the national language of the respective nation and another one is the most popular international language.
- xv. National libraries' websites which did not have usage statistics should upload it on the homepage of the website. Usage statistics highlights how many webpages are accessed. It also shows how many users visit the website over a time period.

CONCLUSION

National libraries are unique institutions and known as research institutions which have responsibilities to acquire preserve and provide access to all the information resources published in the respective nation as well as concerned publications which are published outside the nation. The development of World Wide Web helps in acquisition, preservation and dissemination of information. Therefore, number of national libraries generates their own website. The presence study identified that there are forty-three European nations which are the member of UNO and all have a designated national library. The collected data reveals that out of forty-three European national libraries only forty-two European national libraries have its website. It is the proof that national libraries are accepting significance of web and its utility in its day to day life. The study find out that most of the European national libraries have sound web presence with quite good amount of number of webpages, in-links, rich content files. On the basis of these indicators, they scored good WISER value during the analysis. On the basis of structure analysis, it can conclude that most of the European national libraries have users' friendly structure of the website. On the other side, some prominent national libraries also missed basic feature of the website structure. Therefore, there is a need to regular monitoring the functioning and friendliness of the websites among users group.

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Appendix I

UNO Member Countries with National Library

S.N. Name of the Country	Name of the Library
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1	Albania	National Library of Albania
2	Andorra	Andorra National Library
3	Austria	Austrian National Library
4	Belarus	National Library of Belarus
5	Belgium	Royal Library of Belgium
6	Bulgaria	St. Cyril and St. Methodius National Library
7	Croatia	National and University Library, Zagreb
8	Cyprus	Cyprus Library
9	Czech Republic	National Library of the Czech Republic
10	Denmark	Royal Library: The National Library of Denmark and Copenhagen University Library
11	Estonia	National Library of Estonia
12	Finland	National Library of Finland
13	France	French National Library
14	Germany	German National Library
15	Greece	National Library of Greece
16	Hungary	National Szechenyi Library
17	Iceland	National and University Library of Iceland
18	Ireland	National Library of Ireland
19	Italy	National Central Library of Rome
20	Latvia	National Library of Latvia
21	Liechtenstein	National Library of Liechtenstein
22	Lithuania	National Library of Lithuania
23	Luxembourg	National Library of Luxembourg
24	Malta	National Library of Malta
25	Monaco	National Library of Monaco
26	Montenegro	Central National Library of Montenegro "Djurdje Crnojevic"- Cetinje
27	Netherlands	National Library of the Netherlands
28	Norway	National Library of Norway
29	Poland	National Library of Poland
30	Portugal	National Library of Portugal
31	Republic of Macedonia	National and University Library (NUL) "Ss. Kliment Ohridski"
32	Republic of Moldova	National Library of Moldova
33	Romania	National Library of Romania
34	Russia	National Library of Russia
35	San Marino	National Library of San Marino
36	Serbia	National Library of Serbia
37	Slovakia	Slovak National Library in Martin
38	Slovenia	National and University Library of Slovenia
39	Spain	National Library of Spain

40	Sweden	National Library of Sweden
41	Switzerland	Swiss National Library
42	Ukraine	Vernadsky National Library of Ukraine
43	United Kingdom	British Library