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Content Analysis of Asian National Library Websites

ABSTRACT

Libraries are slowly shifting their role from being custodians of collection-based traditional information resources to being providers of access-based digital information resources. National library being the apex body of a country's library system really holds a vital part in the whole gamut of knowledge sharing. Library websites play an important role for this purpose. The basic purpose of this study is to analyze the contents of national library websites of Asian countries. An evaluation method was carried out for this study to know the how far the websites of national libraries of Asian countries had satisfied the selected parameters as instructed in the respective guidelines. According to findings, 9% of selected national library websites regardless of their characteristics had fallen in the grade of "A++", 44% had fallen in "A" and remaining 47% had been considered in the grade of "B".

Keywords: Traditional information resources, Digital information resources, National library, NL, Content analysis

INTRODUCTION

Library and information centers are the vital part of the world's education and information storage and retrieval system. All kinds of people including students, teachers, business executives, government officials, scholars, and scientists use library resources for their purposes. A national library (NL) is a library specifically established by the government of a country to serve as the preeminent repository of information for that country. A national library is that library which has the duty of collecting and preserving the literature of the nation within and outside the country. Thus, national libraries are those libraries whose community is the nation at large. A national library reflects the cultural heritage of the nation. It preserves the information for future generation. It also plays a major role for national bibliographic control. The functions and purpose of national libraries may differ from country to country due to some political agendas. One of the unique privileges of a national library of a country is to receive by law all print and non-print materials produced by the country. With libraries shifting their role from being custodians of collection-based traditional information resources to being providers of access-based digital information resources, the library websites play an important role. Libraries have to disseminate and facilitate access to variety of information to their users through their websites. National libraries around the world maintain their websites which are used to offer a wide range of information, consistent with their wide range of activities, as compared to other types of libraries. So, there are some guidelines in international, national, regional levels for building the various organizational, institutional or any other types of standard websites (Haneefa and Venugopal, 2010). Now the question is how far the national library websites are followed or following the guidelines in building and maintaining their websites? The present work intended to analyse and evaluate the national library

websites of Asia. For the present study, the 113 Design Guidelines for Homepage Usability by Jakob Nielsen, 2001 (https://www.nngroup.com/articles/113-design-guidelines-homepage-usability/) and guidelines given by NIC (National Informatics Centre) for Indian Government websites have been taken into consideration as the authentic standard (Nielsen, 2001). From the above said guidelines some parameters have been set and then analyzed and evaluated. Then each of the selected websites has been checked on the basis of each of those selected parameters.

LITERATURE REVIEW

Haneefa K and Venugopal M K (2010) highlighted on the contents and design of national library websites of some Asian countries. Pisanski and Zumer (2006) summarized that European national library web sites do, in fact, have a common core of content and, in large part, follow the design guidelines, but there are still some deviations from the recommendations. National libraries of the economically better developed countries have better web sites in terms of the guidelines followed by them, whereas national libraries of the Eastern and Southern European countries fare slightly worse. Zeinolabedini, Maktabifard and Osareh (2006) studied that the various NLs status in terms of their website quality and performance. Results show that based on this research criteria, Library of Congress website is the most powerful one among world others some NLs websites. In a survey, Smith (1999) compared impact factors of website of Australia and New Zealand national library. After calculating links of these 2 websites, he concluded that Australian NL website is larger and has more in–links rate.

OBJECTIVES

The objectives of the study are as follows:

- This study particularly aims to consolidate the information on national library of Asian countries.
- To analyze the contents of national library websites of Asia countries.
- To identify how far the national library websites are following the standard guidelines.
- To find out the facilities and services provided on the national library websites of Asian countries.
- To suggest measures for the improvement of national library websites.

SCOPE OF THE STUDY

The present study was conducted on the selected national library websites of Asia. This study was restricted within the field of Internet for searching the related websites on national libraries of Asian countries. The study is also restricted within the particular time period i.e. from 01/02/2018 to 30/06/2018. Another decision was taken that the study is restricted within English language based and translation based national library websites only.

In Asia, there are 48 sovereign states, which are member of United Nations in Asia. Also there are 6 Non-United Nation states with limited international recognition, 4 Dependent territory and 2 Special areas of internal sovereignty (http://www.un.org/). The study focused on the homepage of national libraries' websites which are general in nature with their collections, services, e-resources and web 2.0 facilities.

A comprehensive search on the web was conducted and websites were selected for the study from the Asian countries on the basis of following criteria:

- Number of Asian countries or territories which are having national library;
- Number of Asian countries or territories which are having website of national library;

- Number of Asian countries or territories which presented national library website in English language or having comprehensive English version website of national library.

- Major functional university library of some countries treated as national library with legal deposit, which is included in this study.

On the basis of the above mentioned criteria, it was found that 50 Asian countries (including UN & Non-UN members) are having national libraries; out of that only 49 countries are having NL websites. The website of 49 national libraries were examined and observed on different intervals and it was found that out of 49 websites, only 45 are functional national libraries of Asia and have maintained English language website or has translation facilities for conversion into English. So, finally 45 countries were selected.

METHODOLOGY

Data were collected from the home pages and its other related links on the basis of 113 Design Guidelines for Homepage Usability by Jakob Nielsen, 2001 (https://www.nngroup.com/articles/113-design-guidelines-homepage-usability/) and guidelines given by NIC (National Informatics Centre) for Indian Government websites. Apart from the above, data were also collected from different documentary sources and other e-resources. In this study, only five main aspects i.e. the homepage information, information about collections, information on e-resources, information on library services and application of Web 2.0 of the 45 selected national library websites of Asian countries were analysed.

In order to analyse and evaluate the websites of national libraries in Asia, some usability checklists were compiled on the basis of above mentioned guidelines. All these guidelines are modified according to the features and characteristics of national library websites. These

checklists were used for the evaluation of the selected websites of national libraries in Asia. Each feature included in the checklist was giving two weightage i.e. one (1), if a particular feature is present on the website and zero (0), if it is not available. For example if National library of India has a window title then it got one point and if it does not have window title then it scores zero point.

ANALYSIS OF THE CONTENTS OF NATIONAL LIBRARY WEBSITES

The checklist designed for the study includes following ten headings under main aspect "homepage information", which started from Aspect-1A to Aspect-1J according to order mentioned below. Ten major aspects were further analysed from checklist's data.

Some other checklists for this study are presented through Aspect-2, 3, 4 and 5. These four aspects actually represent remaining four major aspects, which are analysed in this study also from checklist's data. Collected data are analysed according to above mentioned headings in the following few paragraphs.

Aspect-1A: General Information from Homepage

A library website's homepage or any other type of website's homepage is the main gate of entrance of the virtual visit of a library or other organization. The website homepage should highlight to their user (or customer) about the name and other general information without any delay. A library website's homepage or any other type of website's homepage is the main gate of entrance of the virtual visit of a library or other organization. The website homepage should highlight to their user (or customer) about the name and other general information without any delay. For that the name of the library and its logo should be inserted on the website at a noticeable location so that it can catch first attention when users enter a

particular website. In this study the position of name and logo of the selected NL websites of Asian countries were analyzed and found that in most of the national libraries i.e. 35 out of 45 (77.77%), that name and logo of the library are present at the upper left corner of the website. Rest of the national libraries i.e. 10 (22.23%) could not fulfill the parameter. The size of library's name at the website of Singapore, Maldives, Jordon, Japan, Iraq, Iran, Cyprus and China was found small. In the website of Uzbekistan there was not any type of name and logo of library. The selected parameter "About us" of the website gives users brief information about the institution and its various activities. Almost all the selected national libraries, 44 (98%) provided "About us" link on the homepage of the website. There was no about us option in the website of Syria. Some national libraries used different naming terms for heading the "About us" section like 'About me', 'About library' etc. In parallel with "About us" another parameter "Administrative board/structure" of libraries is provided by 19 i.e. 42.22% out of selected NL websites. And 26 NL websites i.e. 57.78% presented their site without "Administrative board/structure" information. All the selected websites (45) of Asian national libraries' provided "Contact Us" information. The information element in the "Contact Us" was different from library to library. Majority of websites provided only complete physical address and email address. In relation with contact information, the "Feedback" parameter provides by 91.11% national library websites (41). "Copyright" information is provided by 40 (88.88%) national library websites and remaining 5 library websites (11.12%) did not provide copyright information. With the copyright information "Date of updation" was mentioned in only 9 (20%) NL websites. There was no update date mentioned in the rest 80% i.e. 36 NL websites. The parameter 'FAQ" is fulfilled by only 35.55% (16) NL websites out of 45 websites. The remaining 29 NL websites presented their websites without FAQ for their users.

Background information through their "History" parameter is provided by 40 (88.88%) NL websites and remaining 5 libraries did not provide information on "History" of their NL.

Information regarding "Library hours" is provided by 25 (55.55%) national library websites and rest 20 (44.45%) did not represent their "Library hours". Similarly "Library map" is provided by only 8 (17.77%) websites and it is not mentioned in the remaining 82.23% (37 NL) websites; "Library tour" parameter is fulfilled by 9 (20%) websites and rest 80% (36 NL) has not; "Membership information" is provided by 25 (55.55%) NL websites and 20 websites did not provide membership details; parameter "Location map" is covered by only 16 (35.55%) NL websites and 29 websites did not have it. Quite good number of NL websites, 35 (77.77%) highlighted their "Goal & Mission" and remaining 10 library websites did not highlight that. "Forthcoming news and events" menu is presented by 37 NL websites and rest 17.78% (8) websites did not provide such information. Sitemap is an important feature of websites. This "Sitemap" is provided by only half of the selected national library websites i.e. 23 websites (51.11%). Other 22 (48.89%) websites did not provide sitemap. Another issue was that, most of the NLs (41 or 91.11%) under the selected libraries provided their websites in more than one language.

Aspect-1B: Features of the URLs of the Homepage

A website URL provides some significant features. Recall value is a one of the significant features of them. Among the selected national library websites of Asian countries (45), it was found that 51.11% (23) websites had a simple and memorable URL. Generally it did not add any complex code or even 'index.html' after the domain name. On the other hand 48.89% (22) websites used some kind of code after the domain name such as "intex.html", "default.aspx", "page.php", "index.php" etc.

Another feature which has been observed is that the URLs of the websites respond with either both "www.library.com" and "library.com" or URLs of the websites respond with only first one, not without prefix (like 'www'). It was found that quite good number 77.77% (35) of websites responded in both the ways and remaining 22.23% (10) websites did not respond when "www." was removed. Another important aspect is whether the website's URL has country's top level domain or not. National libraries are representing its country in the cyber world so it should use its country's top level domain. In addition to that it has national and international users, so the website domain should be one that distinguishes it from other websites. The analysis of domain name of the websites revealed that 86.66% (39) websites were using country's top level domain name and only 13.34% (6) websites were using other domain names such as .org, .com.

Aspect-1C: Features of the Window Title of the Website Homepage

Website window title plays very significant role in the retrieval of website via the search engine which is determined by the title tag of each HTML (Hyper Text Markup Language) document. Search engine uses the window title when user searches through search engine. Therefore, it should be as specific as possible and should begin with informative word, usually or generally the name of the library. Among the selected national library websites of Asian countries, it has been showed that all the websites provide window title to the homepage except National library of Uzbekistan. These window titles sometimes were the name of national libraries or as per their country's language or any other departmental name of particular country. Sometimes window titles begin with the term "Welcome" or "Homepage," which is not wrong or unethical but it does not separate site information. This analysis revealed that some national libraries like National library

of Brunei used; window title entitled, "Perpustakaan Brunei Darussalam"; National library of Jordan used the window title entitled "Home: Department of the National library", National library of Saudi Arabia used the term "KFNL", National library of Oman used the window title entitled "The Sultan Qaboos University Library" etc. which were not started with the name of the library. Out of 45 national libraries, 35 (77.77%) NL websites started with user friendly names and rest of the national libraries 10 (22.23%) started the window title with the name of others title. From another perspective an analysis showed that all the websites did not include the top- level domain name such as .com, .in, .pk etc. in their window title.

Aspect-1D: Features of Date and Time

National libraries all over the world have international users so it should use international time zone on its website and those (NL websites) using local time zone must use standard abbreviation. The study revealed that just more than half 57.78% (26) websites were using international time zone and rest of 42.22% (19) websites were using local time zone on their website. In case of the clarification of date on the website, it's better to spell out the month, instead of writing it in number form. In this study it was found that almost half 48.89% (22) websites fulfill this criterion and 51.11% (23) websites were not following this criterion. Both (using number to show the month and spell out the month) formats of date was found on 17.39% websites. It is better to follow only one pattern of date to avoid any type of ambiguity.

Aspect-1E: Features of the Content Writing

There is a basic difference between writing for a webpage and writing for a printed source. On the web, users are basically scanning the web pages instead of reading. Libraries have their own terminology but general users are not familiar with these technical LIS terms. It is

necessary to use user friendly language or define the technical terms wherever necessary. All the selected national libraries of Asian countries frequently used technical terms on their websites such as OPAC, online database, digital resources, e-resources, union catalogue etc. But there was one library i.e. the National library of Indonesia which provided link to the dictionary of the "library term" used on the website. Other than that various parameters should be maintained by any type of websites. One parameter "avoid unnecessary uppercase letter" is maintained by most of the, 41 (91.11%) NL websites and rest 8.89% (4) websites are just opposite and used uppercase letter some times. In order to emphasize the importance of categories or links, web designers repeat the links on the homepage but this act actually reduces their impact. A homepage of the website is the index page; every piece of information should be linked from it and for that redundancy should be avoided on the homepage. The analysis highlighted that almost all 44 (97.77%) websites had no repetition of content on the homepage. In this analysis it was found that just over half number of websites, 24 (53.33%) avoid single item categories and single item bulleted list. In this study Aspect-1E highlighted that 51.11% (23) national libraries' websites in Asia spell out abbreviations and acronyms to provide immediate and easy understanding to all users, especially for person, using a screen reader but 48.89% (22) NL websites did not spell out the abbreviations and acronyms. The common abbreviations and acronyms used on the websites were RSS, UN, ISBN, ISNN, CIP, IFLA, OPAC and ISO. Another issue found in this study was that, all the selected NL websites (45) did not use spaces and punctuations appropriately for emphasis.

Aspect-1F: Navigation Features of the Website

The primary purpose of a homepage is to facilitate good navigation for easy and user friendly movement.

There is a need to put proper attention on navigation in the process of designing of a website so that navigation would be able to reveal all the content of the website. Labeling of links on the homepage should be as specific and brief as possible. It should start with informative word. In this study analysis shows that 82.22% (37) websites followed this norm. Remaining 8 (17.78%) did not follow this criterion. For example, the headings on the homepage of National library of India were entitled 'More about National library', 'View Recently Digital Books' etc. and in the same way on the website of National library of Iraq heading were entitled 'NLA publication', 'NLA Department', 'NLA Services' etc. The collected data reveals that 33 (73.33%) websites provided link to homepage from each webpage of the website and remaining 26.67% (12) websites did not follow this criterion. Under this study majority of national libraries i.e. 93.33 (42) websites did not use generic instruction such as "Click Here" and fulfill the parameter except the National libraries of Bangladesh, Bahrin and Brunei. It was found that instead of underlining or colouring, some national libraries i.e. 11 (24.45%) used the word 'Links', 'Quick Links', 'Necessary Links', 'Pages' and 'Navigation Menu' etc. to show the list of links on the homepage. This thing should be avoided by the national libraries for increasing the usability of the websites. **'**The primary navigation area in a highly noticeable place' this parameter covered by 88.88% (40) NL websites and remaining 11.12% (5) websites did not provide such feature. As per standard guideline each website should allow change of link colour to indicate visited status by user. Among the selected websites of national libraries in Asia only 5 national libraries (11.12%) i.e. National library of China, Japan, Iraq, India and Nepal allowed the link colours to show visited and not visited status. Others 88.88% (40) did not support that. A link to the homepage on the homepage is clickable, users will inevitably click on it and wonder if the page has indeed

changed. This analysis shows that 40% (18) NL websites provided an active link to the homepage on the homepage and rest 60% (27) was just opposite.

Aspect-1G: Searching Feature of the Website

The primary aim of the users on the website is to find the information as early as possible. In this study an attempt was made to analyse all search features of the national libraries' websites of Asian countries. Within all NL websites, 24.45% (11) websites did not have a way to search the website. Remaining 75.55% (34) websites had the search facility. "Provision of an input box instead of just giving them a link to search" parameter is matched by 77.77% (35) websites with the search box on the homepage of the website. Remaining 22.23% (10) did not support it. In the search box, 30 plus characters should be visible so that a user can see the entire search. And also they can modify it during the search process. Only 28.88% (13) websites support this benchmark via wide search box. Rest of the national libraries 32 (71.12%) had the search box below 20 characters i.e. small. Advance search option is provided by only 17.77% (8) national libraries and remaining 82.23% (37) did not provided advance search. The data reveals that among the 77.77% (35) websites which provided site search option on its website. Among them five libraries label the search box with the heading 'Search' instead of using a "Search" button to the right of the box. The thirty three (73.33%) websites of national libraries did not label the search area, in its place they provided the search button on the right of the box and rest websites were just opposite.

Aspect-1H: Graphics and Animation of the Website

In general meaningful explanatory text description must be provided for images, graphics and other non-text elements in any type of website. For that <ALT> HTML tag must be defined in the coding of the webpage.

Sometimes browser takes time to load a webpage, that time it is helpful because text loading is faster than images or non-text materials. The data shows that 55.55% (25) websites satisfied this measure and 44.45% (20) websites did not fulfill this criterion of usability. Any watermarks graphics or images decrease the visibility and add no value to documents. Almost all the websites 93.33% (42) under study avoided the use of watermarks on the homepage of the websites and remaining 3 (6.66%) websites including Saudi Arabia, Singapore and UAE used it. Generally vertical scrolling is normal attribute and it was habituated with computer hardware i.e. mouse but horizontal scrolling is not good feature of a website. In this study maximum of the websites 95.55% (43) avoided horizontal scrolling and rest of the two websites used it. Use of high-contrast text and background colors supports the legibility of websites. Out of selected websites 80% (36) websites fulfilled it and rest 20% (90) websites did not fulfill it. To specifically highlight the content or to bring in notice the particular information to the users, most of the time website content is animated. But there should be some mechanism in the hand of uses to control the animated work like scrolling and blinking of the content. Animation of critical elements of the page, such as the logo, tag line, or main headline is not a good choice for users. Only 26.67% (12) websites maintained it.

Aspect-1I: News and Press Releases

It is important to make news stories and press releases effective on website's homepage. This applies to either the organization's news that presented on homepage, or any news that website delivers as a content. Headlines and decks should actually give users outline information, before clicking through to the real information. Headlines should be succinct, yet descriptive, to give maximum information in as few words as possible. The data shows that 88.88% (40) websites satisfied this measure and 11.12% (5) websites did not fulfill this

criterion of usability. Under the parameter, Link headlines, rather than the deck, to the full news story data reveals that 80% (36) national library websites fulfill the criterion and rest 20% (9) did not fulfill.

Aspect-1J: Popup Windows and Advertising

In general, it is best to show site content immediately. Intermediary screens are rarely necessary and keep users from getting to the main site content. The intermediate pages might confuse some users into not recognizing the "real" homepage. Advertisement also creates various confusions. The parameter, "Keep external ads (ads for companies other than your own) as small and discreet as possible relative to your core homepage content" is satisfied by 97.77% (44) NL websites and rest 2.23% (1) did not satisfy this parameter. The intermediate pages i.e. pop-up windows might confuse some users into not recognizing the "real" homepage. So, the parameter avoids pop-up window, fulfilled by 95.55% (43) NL websites and 4.45% (2) websites did not satisfy it.

Aspect-2: Information about Library Collection

All the NL websites provide their detailed collection. The type and scope of their presentation varies from website to website with general to more detailed information. Table- 6.2 shows that the information about the collection like 'Books', 'periodicals', 'Audio visual documents', 'Maps', 'CD/DVD', 'Rare collection', 'Regional collection', 'Micro documents' etc. on the websites. In this study it was found that all the NL websites (45) provided details of their book collection and all the NL websites provided their regional collection on their websites. Information on foreign collection was provided by 75.55% (34) national library websites and remaining 24.45% (11) websites like Armenia, Brunei, Iraq, Iran etc. did not provide that information. The rare collection of the national library is provided by 39 (86.66%) websites among the selected websites. Remaining 13.34% (6) websites did not

provide information about rare collections. Different kinds of special collection information are provided by 60% (27) national library websites and rest 40% did not. Very few of NL websites provided the details of children's information i.e. 13 (28.88%) and remaining 32 (71.12%) did not highlight information on children's collections. The children's collections are available in the NL websites of Brunei, Japan, Singapore, UAE, Macao etc. Almost the half, 23 (51.11%) national libraries among the selected national library websites have links to new additions on their websites and others 22(48.89%) did not represent such information. Information on audio video materials and CD/DVD were provided on the 33 (73.33%) NL websites and 26.67% (12) websites did not fulfill this. Almost all the website 43 (95.55%) among the selected websites provided details of the subscribed journals or periodicals and the same number of websites (43) provided information about newspapers on their websites. The information on microform collections of the national libraries were provided by almost 26 (57.78%) national libraries in their websites and was not provided in remaining 19 (42.22%) websites. Twenty five (55.55%) national library websites were represented by their music collection information for users. A good number of national library websites i.e. 38 (84.44%) provided details of maps and 7 (15.56%) were present without information on map collections in their respective websites. A quite good number of websites presented the detailed information of their manuscripts (75.55%) and photograph (71.11%) collections. Information about manuscripts and photographs in the national library websites were provided by 34 and 32 websites respectively. In the remaining numbers i.e. 11 (24.45%) and 13 (28.89%) respectively, there were no information about manuscripts and photographs. The national libraries generally act as legal depositories in order to collect each and every published document in the country and about the country also. The

large number of national libraries i.e. 41 (91.11%) provided information on legal deposit. Less than half numbers of national libraries from selected national library websites provided details of the dissertations 20 (44.55%) in their websites and 18 (40%) websites gave details of on-going projects. The remaining 55.55% (25) and 60% (27) websites did not satisfy this criterion regarding the information on thesis/dissertations and projects.

Aspect-3: Information on E-resources

Present era is known as the age of ICT or the digital age. To create effective and efficient library website, it must include electronic resources including e-journals, e-databases, e-books etc. This study revealed that a good number of the libraries 28 (62.62%) provided links to e-books in their websites and rest 17 (37.78%) websites were not like that. National library websites of China, Iran, Israel, Georgia etc. provided links to e-books. Very good number of NL websites provided links to e-journals [35 (77.77%)] and e-databases [40 (88.88%)] on their websites and there are websites without information about e-journals and e-databases i.e. 10 (22.23%) and 5 (1.12%) respectively. For example, information on the e-journals subscribed and maintained by the national libraries of China, Japan, Malaysia, Singapore, India, Iran etc. are reflected in their websites. A good number of websites i.e. 39 (86.66%) provided information on Intranet facility in their library. Very few number of national library websites i.e. 11 (24.45%) highlighted the information about online exhibition or seminars. The website of national library of China and other ten websites reflected information on online exhibition or seminars.

Aspect-4: Infromation about Library Services

Aspect-4 depicts various type of services which are available via the national library websites. Majority of library websites 41(91.11%) provided links to their OPAC in their websites and remaining 4 (8.89%) had no OPAC

service. Almost half number of selected libraries provided the service of Inter Library Loan i.e. 26 (57.78%) and Document Delivery Services [29 (64.45%)] on their websites. Inter Library Loan service and DDS links were not provided on the 19 (42.22%) and 16 (35.55%) websites respectively. All the NL websites (45) provided links to reference services and 30 (66.66%) websites provided bibliographic services in their websites and rest 15 (33.34%) were without information on bibliographic service. Reprographic service was specified by the 25 (55.55%) national library websites and was not specified by remaining 20 (44.45%) websites. Information on indexing services was provided by only 12 (26.67) websites. Rest 73.33% (33) websites were without information on indexing service. Good number of national libraries provided the details of services to researchers in their websites. Thirty national library websites (66.66%) reflected information about the services to the researchers via their websites and other 15 were without any information. Information regarding the preservation and conservation of rare and early printed documents was represented by most of the NL websites i.e. 43 (95.55%).

Aspect-5: Application of Web 2.0 Technology

The term Web 2.0 is a boom of the present time. To find out the application of Web 2.0 in the national library websites by using following keywords such as blog, podcast, vodcast, chat, tagging, RSS, ask librarian, virtual reference, Twitter and Facebook. Among 45 national libraries, 19 (42.22%) national libraries were using RSS application on their websites and rest 26 (57.78%) did not have RSS feed. Among the selected websites only two websites were using Atom service. Other popular Web 2.0 tools are social networking site (SNS), blog and microblog. Only 9 (20%) and 17 (37.78%) national library websites were using blog and microblog for communication and remaining 36 (80%) and 28 (62.22%) websites were

without blog and microblog. Among the 45 national libraries, 33 (73.33%) national libraries were using social networking site. Podcast/vodcast is used only by 2 national libraries. Instant messaging (IM) can be used as a virtual reference service but out of 45 national libraries only 9 (20%) provided this on their websites. For sharing photos of events, historical moment's etc. only 12 national libraries were using this feature.

SUMMARY OF FINDINGS

The present study NL websites of Asian countries have been evaluated through five main aspects with 14 broad areas. According to the result, the websites followed some of the selected parameters and did not follow rest of those. Fourteen (14) areas and under 14 areas 100 parameters had been considered in total. When a websites satisfied a parameter, score 1 (one) was assigned for that and when did not satisfy a parameter, score 0 (zero) was assigned for that. So after checking through every parameter, a website scored a certain value which was indeed the summation of 1s (ones). It was finally tried to assign a status to each website. The NL websites were evaluated through such parameters, which made the websites more accessible, qualitative and user centric in implementing them. Thus, it was good for the NL websites to implement as much parameters as possible. So, the scores were converted into grade and then all the NL websites were divided into four levels of grade. The score of each websites and scale division of grade were set as follows.

IF Score e" 80 Grade is "A++"

IF Score e" 60 and < 80 Grade is "A"

IF Score e" 40 and < 60 Grade is "B"

IF Score < 40 Grade is "C"

Depending on this equations the score status of individual NL websites are as follows:

## Table 6.2. Score Status of Individual NL Website of Asian Countries

SL No		A	B	C	D	E	F	G	H	I	J	K	L	M	N	Total Score	Grade
1	Armenia	12	3	2	1	3	4	3	5	1	2	6	3	10	2	**57**	**B**
2	Azerbaijan	12	1	2	1	3	5	0	4	2	2	13	4	9	1	**59**	**B**
3	Bahrain	5	0	1	1	3	2	4	4	1	2	12	3	5	1	**44**	**B**
4	Bangladesh	10	3	2	0	5	2	4	4	1	2	13	2	9	1	**58**	**B**
5	Bhutan	10	3	2	1	4	5	1	5	2	2	10	2	6	1	**54**	**B**
6	Brunei	11	3	1	1	4	1	4	4	0	2	8	2	10	2	**53**	**B**
7	Cambodia	7	3	1	1	3	6	3	5	2	2	10	2	9	1	**55**	**B**
8	China	13	3	2	1	3	6	4	4	2	2	14	5	12	2	**73**	**A**
9	Cyprus	14	1	1	1	3	4	4	5	2	2	10	3	10	0	**60**	**A**
10	Georgia	12	2	2	2	5	4	3	5	2	2	10	4	11	2	**66**	**A**
11	HongKong	16	2	1	2	4	5	4	3	2	2	17	5	15	4	**82**	**A++**
12	India	14	3	2	1	5	7	0	5	2	2	15	4	11	0	**71**	**A**
13	Indonesia	6	1	2	2	5	4	2	2	2	2	13	4	9	3	**57**	**B**
14	Iran	10	3	2	1	3	4	4	5	2	2	11	3	9	0	**59**	**B**
15	Iraq	9	1	2	1	3	7	3	4	1	2	7	2	4	1	**47**	**B**
16	Israel	14	3	2	2	5	6	4	4	2	2	12	5	14	7	**82**	**A++**

Header for the table:

Total Score 100 (From Aspect 1A – 1J, 2, 3, 4 & 5)
Score Distribution of Aspects
(Out of individual points i.e. mentioned within brackets)

Total Score & Grade
Total Grade Score

17	Japan	12	3	2	1	4	6	3	5	2	2	15	4	17	4	**80**	**A**++
18	Jordon	12	2	1	1	4	5	5	4	2	1	11	4	12	1	**55**	**B**
19	Kazakhstan	10	2	2	1	3	5	3	3	2	2	6	5	11	3	**58**	**B**
20	Kuwait	9	2	2	1	5	5	3	4	2	2	9	3	8	3	**58**	**B**
21	Kyrgyzstan	6	2	2	1	3	3	0	4	0	2	12	4	11	2	**54**	**B**
22	Laos	10	1	2	0	5	4	0	5	1	2	11	4	10	1	**56**	**B**
23	Lebanon	10	2	2	0	5	4	3	4	2	2	12	3	10	4	**63**	**A**
24	Macao	14	2	2	1	4	6	4	4	2	2	15	5	15	2	**78**	**A**
25	Malaysia	12	2	2	2	4	5	3	3	2	2	12	5	13	6	**73**	**A**
26	Maldives	12	2	2	1	4	5	0	4	0	2	8	3	7	2	**52**	**B**
27	Myanmar	6	2	2	2	5	3	0	4	1	2	15	4	11	4	**61**	**A**
28	Mongolia	10	2	2	1	4	6	3	3	2	2	10	0	11	3	**59**	**B**
29	Nepal	9	3	2	1	4	6	3	4	1	2	12	0	11	0	**58**	**B**
30	Oman	12	1	2	1	4	5	5	2	2	1	10	4	11	3	**63**	**A**
31	Pakistan	12	3	2	1	4	6	2	4	2	2	12	0	11	0	**61**	**A**
32	Philippines	11	1	2	1	4	5	0	5	2	2	13	0	10	1	**57**	**B**
33	Qatar	11	3	2	1	4	5	4	5	2	2	16	4	11	4	**74**	**A**
34	SaudiArabia	11	2	1	1	5	4	4	2	2	2	13	5	13	4	**69**	**A**
35	Singapore	15	3	1	1	4	5	3	3	2	1	14	4	14	7	**77**	**A**
36	Korea South	14	3	2	1	5	4	5	4	2	2	16	5	14	5	**82**	**A**++
37	Sri Lanka	12	2	2	0	5	5	0	4	2	2	16	4	15	1	**70**	**A**
38	Syria	8	2	2	0	3	5	3	4	2	2	13	4	7	0	**55**	**B**

39	Taiwan	17	2	2	1	4	6	3	5	2	2	11	4	13	3	**76**	**A**
40	Thailand	11	2	2	1	4	5	3	4	2	2	12	4	10	3	**65**	**A**
41	Timor-Leste	9	2	2	1	4	2	3	4	2	2	5	0	5	1	**42**	**B**
42	Turkey	14	1	2	1	2	4	3	4	1	2	15	4	15	2	**70**	**A**
43	UAE	14	1	1	1	3	3	3	2	2	2	10	4	11	6	**63**	**A**
44	Uzbekistan	14	3	0	1	4	6	4	4	2	2	15	5	15	1	**76**	**A**
45	Vietnam	15	3	2	2	4	5	0	5	2	2	15	5	14	2	**76**	**A**

Note : A = Name of the National library (Website); B = Aspect-1A(18); C = Aspect-1B(3); D = Aspect-1C(2); E = Aspect-1D(2); F = Aspect-1E(5); G = Aspect-1F(7); H = Aspect-1G(5); I = Aspect-1H(5); J = Aspect-1I(2); K = Aspect-1J(2); L = Aspect-T-2(17); M = Aspect-3(5); N = Aspect-4(18); O = Aspect-5(9)

Table 6.2 represents the status of individual NL website of different countries of Asia. This above table has also been summarized to know which status contains what amount of score (number and grade). The results are highlighted below.
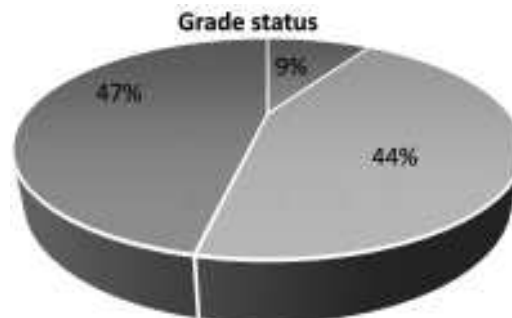
Fig. 6.1. Grade Status of NL Websites

The above figure 8.1 (Pie chart) shows that 9% selected NL websites had fallen in the status of "Grade A+", 44% had fallen in "Grade A", 47% had fallen in "Grade B" and not any website had fallen in "Grade C'.

SUGGESTIONS

• The library name and logo of the library should be visible enough and placed at the most noticeable location on the homepage of the website. The best position for it is the top left corner of the website.

• Website is the gateway of any library or other organizations in this age of ICT. Websites of national libraries should have simple and memorable URL. It should work both with 'www' and without the 'www'.

• National library websites should use country's top level domain name to show its identity at international or global level.

• Homepage or even each webpage of the website should have a simple window title. Title should begin with an informative word i.e. the name of the library.

- Link to "About Us" section should be available on the homepage which should contain comprehensive information about the library including brief history and its different activities. One standard word should be followed for its labeling.

- One uniform pattern of date and month should be followed throughout the website. Month should be spelled out rather than using number.

- "Contact Us" option should include with full physical or postal address, e-mail address, map of the location.

- FAQ and the contact detail of each section and the directory of library staff according to administrative structure should be available.

- National library's website should provide archive of the past events according to particular specific arrangement.

- National library's website contents should use user friendly language instead of library terminology on the website and should provide clear description wherever use of technical language is done, that is mandatory.

- There should not be duplication of links on the homepage of the website of national library.

- Used abbreviations and acronyms should be spelled out whenever and wherever required.

- Proper navigational structure should be incorporated into the website so that user moves around the website easily or jump one location to another location.

- Every page of the website should contain a link to the home page and must show the current position of user on the website through path information.

- Standard link colours should be used for differentiate links that have been visited (previously clicked) and those that have not.

- Search features should be provided because it makes the search easy. Search box should be provided on the homepage instead of just providing a link. The width of search box should be as wide so that user can modify its search query easily.

- "ALT" HTML tag should be provided for all the non-textual elements (Like image) on the website.

- National library website should not use scrolling text, marquees, and constant running animations because these are distracting the library users, if using, there should be some manual control in the hand of users.

FURTHER RESEARCH

The limitation of the present evaluative study of the websites of national libraries of Asian countries created the scope of further research in the field. The scope of further research can be stated as follows:

- The evaluation time period was very short of the present study i.e. six months only. So, a much longer time period of evaluation can be applied for such a study which may result in new findings.

- The geographical scope for such study can be extended. It may cover more than one continent.

- Only those parameters have been selected which can access the accessibility, quality and content of the NL websites of Asian countries. The parameters for accessing the security, audit and other such information of the websites may be applied in another study.

- A multidisciplinary approach is also essential for developing automated usability evaluation tools. Further study can be done on that.

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APPENDIX 1

Table 6.1. Selected National Library Websites

Name of NL Website	URL
Armenia	http://www.nla.am/arm/?q=en
Azerbaijan	http://anl.az/new/en/main
Bahrain	https://librarytechnology.org/libraries/library.pl?id=198548
Bangladesh	http://nlb.gov.bd/
Bhutan	http://www.library.gov.bt/
Brunei	https://www.librarybrunei.gov.bn/library/
Cambodia	http://www.khmerica.com/
China	http://www.nlc.cn/newen/
Cyprus	http://www.cypruslibrary.gov.cy/moec/cl/cl.nsf/dmlindex_en/dmlindex_en?opendocument
Georgia	http://www.nplg.gov.ge/eng/home
Hong Kong	https://www.hkpl.gov.hk/en/hkcl/home/index.html
India	http://www.national library.gov.in/
Indonesia	http://perpusnas.go.id/homepage/
Iran	http://www.nlai.ir/
Iraq	http://www.iraqnla-iq.com/site/index.html
Israel	http://web.nli.org.il/sites/nlis/en
Japan	http://www.ndl.go.jp/en/
Jordon	http://www.nl.gov.jo/En/HomePage.aspx
Kazakhstan	https://nlrk.kz/page.php?lang=3
Kuwait	https://www.nlk.gov.kw/historical_background.aspx
Kyrgyzstan	http://www.national libraryofkyrgyzstan.org/
Laos	http://www.national libraryoflaos.org/
Lebanon	http://bnl.gov.lb/English/index.html
Macao	https://www.library.gov.mo/en/
Malaysia	http://www.pnm.gov.my/
Maldives	https://nlm.gov.mv/
Myanmar	http://www.national library.mn/en/
Mongolia	http://www.nlm.gov.mm/
Nepal	http://www.nnl.gov.np/
Oman	https://www.squ.edu.om/libraries/Home

Pakistan	http://www.nlp.gov.pk/
Philippines	http://web.nlp.gov.ph/nlp/
Qatar	http://www.qnl.qa/
Saudi Arabia	http://www.kfnl.gov.sa/Ar/Pages/default.aspx
Singapore	https://www.nlb.gov.sg/
Korea South	http://www.nl.go.kr/english/
Sri Lanka	http://www.natlib.lk/
Syria	http://www.alassad-library.gov.sy/
Taiwan	http://www.nlt.go.th/th/index.php
Thailand	http://www.cultura.gov.tl/en/institution/projects/national -library-and-archives-of-timor-leste
Timor-Leste	http://www.ntl.edu.tw/mp.asp?mp=2
Turkey	http://www.mkutup.gov.tr/en/
UAE	https://www.abudhabi.ae/portal/public/en/homepage
Uzbekistan	http://www.natlib.uz/en
Vietnam	http://nlv.gov.vn/ef/