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## Usability analysis of Homepage of Websites of National Libraries in Asia

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# Usability analysis of Homepage of Websites of National Libraries in Asia

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This paper aims to study the usability features of selected national libraries' websites of Asia with regard to their general features of website, URL, window title, date and time, navigation, content, search and graphic and animation. A usability evaluation checklist was designed on the basis of guidelines given by Neilson and NIC (National Informative Centre) which was grouped into eight major criteria. After evaluating the homepage of selected websites under study it was found that the National Library of Japan is at rank number one among 23 national libraries of Asia and National Library of Maldives at the bottom rank. The study was limited to the homepage of national libraries' websites of Asia which were general in nature and national libraries having collection in specific subjects are excluded. This study compares the national libraries in terms of different usability features employed on its websites. The results of this report could be also useful to the national libraries themselves as a means for quality checking and self-improvement.

**Keywords:** National Libraries, Usability Analyses, Content Analysis, World Wide Web, Design

**Paper Type:** Research Paper

## 1. Introduction

Libraries have special place in the society especially national libraries as they preserve the cultural heritage of a country for future generation. During the last few decades, national libraries have undergone very big changes. These changes come out because of the changing information seeking behaviour of users and also due to various information resources in different formats. For meeting

this changing environment, libraries are using recent information technology to reach out to their users. One such application of information technology is library website. A library website is a virtual public face of the library- the quasi equivalent of the front door, signage, pathfinders, surrogates to the collections, services, and, to an extent, its people. Because library websites compete with a host of other internet services and organizations for clientele, they must capture and motivate the user; provide useful, innovative, and interactive services and products; give the library some form of identity; and encourage repeat visitation while holding the interest of users and simplifying their tasks (McGillis and Toms, 2001). To satisfy all the needs of users in this techno savvy environment, there is a need to design and develop user's centred website. A website is a collection of webpage and the entry page of the website is called homepage of the website. Homepage is the index page of the whole website, so it should be design wisely so that each and every piece of information should be connected from it without any repetitions. In this study an attempt was made to analyses the usability features of the homepage of national libraries' websites of Asia.

## **2. Review of Literature**

To provide access to the library material, with the help of new communication technology, libraries offer new services through their website. Library website is a virtual gateway of the library on the web. Usability is one of the major factors that determine the successfulness of a website. To check the usability of library websites among users there is a need to conduct usability analysis of library websites on regular basis. Lee and Lee (2003) compared and analysed major eight studies concerning usability evaluation of library website and suggested 36 items of evaluation criteria to the usability aspect of the website that are belongs to six domains i.e. quality of links, feedback mechanism, accessibility, design, navigation and searching. To conduct usability assessment Mohamadesmaeil and Kohbanani (2012) examined Iran National Library website. The tool for data collection was checklist, developed on the basis of review of literature. They found that the design of national library websites completely based on functions that support national library's major aims and objectives. The evaluation of usability feature of national library websites of Islamic Republic of Iran, Iraq and Turkey was conducted by Mohamadesmaeil and Kohbanani (2011) through also a checklist. The content and navigation on the website of the National Library of New Zealand was studied by Booth and Napier (2003) and investigated the quality of various services in relation to wide variety of end users as well as its online services by content analysis method. Studying the Japanese public library websites, Kanazawa and Maruyama (2008) considered the usability of children's web pages from the perspectives how easy the webpages were to read and

understand. On the basis of the guidelines suggested by National Cancer Institute, N and Harinarayana (2008) measured the usability features of 30 library websites of science universities. For analyzing the design features of websites, they studied the different parameters like optimizing the user experience; link back to home; colour link behaviour; navigability; and multimedia features.

Alkindi and Bouazza (2010) investigated the navigation and search systems on academic websites and make its comparison with Google, using standard criteria identified in the literature. The study revealed that Google and academic websites had established search and navigation systems that support website accessibility, which enhance site usability. Using a checklist based on available literature, Brower (2004) analyzed 41 academic health sciences library (HSL) websites for layout, technology, and links, and other general site metrics. VandeCreek (2005) conducted the usability assessment of the Northern Illinois University libraries' website by using a trilateral approach which includes usability testing, focus group sessions, and survey questionnaires. Harpel-Burke (2005) compared the library homepages with commercial sector's websites by using Nielsen and Tahir's criteria. The criteria derived from Nielsen and Tahir's study were grouped into four categories: search, navigation, design, and general features. The study revealed that library homepage designs were significantly different from businesses for only four variables: the ability to search the website, the use of a search box or a link, the use of animation, and a change of link colours to indicate viewed links.

After reviewing the available literature, the following points are come out:

- Various studies have been done on usability analysis on academic library websites but very few are concern with the national libraries.
- Most popular method of usability analysis is content analysis by using a checklist and observation method, followed by expert evaluation and user survey.
- For analyzing the usability of library websites the following criteria are considered in various studies which includes link back to home; path information; colour link behavior; navigability; labeling; multimedia features; searching features and design features of website etc.
- For developing the criteria of evaluation of usability most of the author used available literature and the guidelines given by reputed organizations.

### **3. Research Methodology**

In order to assess the usability aspect of the homepage of the websites of national libraries' in Asia, a usability checklist was compiled on the basis of usability guidelines laid down by Jacob Nielsen and guidelines given by NIC (National Informatics Centre) for Indian Government websites. Nielsen proposed 113 design guidelines for homepage usability. National Informatics Centre (NIC) is a "prime builder" of e-Government / e-Governance applications up to the grassroots level as well as a promoter of digital opportunities for sustainable development in India was established in 1976 (<http://www.nic.in/aboutus>). In India, it maintains websites of all the Ministries /Departments of the Central Government, State Governments/ Union Territories. NIC has developed Guidelines for Indian Government websites as an initiative under the National Portal of India Project. In this study these guidelines are used to study the websites of national libraries of Asia.

All these guidelines are modified according to the features and characteristics of national libraries' websites. This checklist was used for the evaluation of homepage of the selected websites of national libraries in Asia. Each feature included in the checklist was giving two weightage i.e. one, if a particular feature is present on the website and zero, 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 scored zero point.

First of all, an attempt was made to find out number of countries in Asia which are having national libraries. Then, a list of the same was prepared. After that, all the websites of national libraries of Asia were examined which were available in English language. The data for the present study was collected during first two week of April 2013.

#### **4. Scope of the study**

There are 53 countries in the world, which are the members of Asia Pacific Group of United Nations (<http://www.un.org/depts/DGACM/RegionalGroups.shtml>). All the Asia Pacific countries are the sample population for this study. The study focuses on the homepage of national libraries' websites which are general in nature. National libraries having collection in specific subjects are excluded from this study.

A comprehensive search on the web was conducted and the sample population for the study was selected from the Asia Pacific Group on the basis of following criteria:

- Number of Asia Pacific countries which are having national library;
- Number of Asia Pacific countries which are having website of national library;
- Number of Asia Pacific countries which are having functional website of national library;
- Number of Asia Pacific countries which designed national library website in English language or having comprehensive English version website of national library.

On the basis of the above mentioned criteria, it was found that 44 Asian countries are having a national library, out of which only 35 countries are having a website. The website of 35 national libraries were examined and observed on different dates and it was found that out of 35 websites only 33 are functional and 23 national libraries of Asia are maintained English language website or has comprehensive English version website.

## 5. Data Analysis

In this study, only the homepage of the 23 selected national libraries' websites of Asia is evaluated as it is face of the institution on the web. The checklist designed for the study includes the following eight major criteria which are further subdivided into different sub-headings.

- general features,
- URL (Uniform Resource Locator),
- window title,
- date and time,
- content writing,
- navigation,
- search and
- graphics and animation,

**Table 1: General Features of the Homepage**

S.N.	General Features	Ban	Bhu	Chi	Cyp	Ind	Indo	Ira	Irk	Jap	Jor	Kaz	Leb	Mal	Mya	Nep	Pak	Qat	Phi	Sin	Sau	Sri	Uzb	Vie
1	Show the library name and/or logo in a reasonable size and noticeable location.	1	1	0	0	1	1	0	0	0	0	1	1	0	1	1	1	1	1	0	1	1	1	1
2	"About Us" link on the homepage	1	1	1	1	1	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1
3	"Contact Us" link on the homepage	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Archiving and accessing the past events	1	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0
5	Related information underline appropriate heading	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1
6	Emphasize the highest priority	1	0	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1

\* List of abbreviation is attached in Appendix 1

**6.1 General Features:** A website's homepage is the main gate of entrance of the virtual visit of a library. The homepage should highlight to their user about the name and other basic information without any delay. For that the name of the library and its logo should be inserted on the website

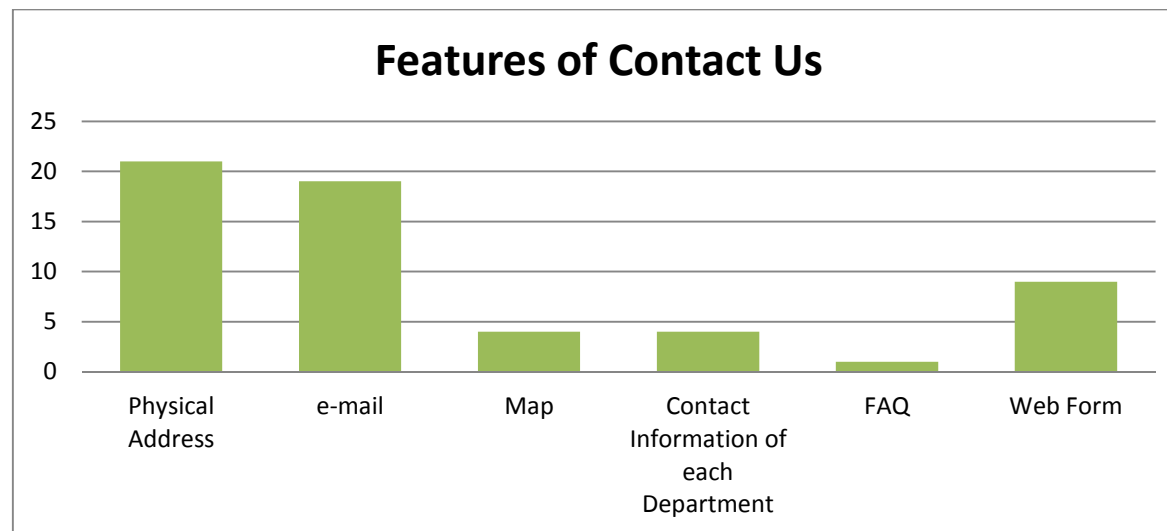
at a noticeable location so that it can get first attention when users enter the site. In this study the position of name and logo of the selected websites of national libraries in Asia were analysed and found that most of the national libraries inserted that name and logo of the library at the upper left corner of the website. The size of library's name at the website of Singapore, Maldives, Jordan, Japan, Iraq, Iran, Cyprus and China was found small.

The section "About us" of the website gives users brief information about the institution and its various activities. Majority of the national libraries provided "About us" link on the homepage of the website. But there was no "About us" section on the website of Indonesia, Lebanon and Maldives. Different terms used for heading the "About us" section includes at Asian national libraries websites were:

- About Us
- Library,
- Visit Us,
- General Information,
- More about the National Library,
- About the Organization,
- About the Library.

All the selected Asian national libraries' websites 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. And as the Figure 1 shows that four websites provided location map (China, Jordan, Kazakhstan, Saudi Arab) and four national libraries gave particular Department of the library contact information (Cyprus, Japan, Philippines and Singapore).





**Figure 1: Features of “Contact Us” on the Websites of National Libraries of Asia**

To give users a clear starting point of the website, all the libraries group the related information together and highlighted the priority task on the homepage. It was found the out of 23 websites, 12 websites did not provide any link to their users to access what they did in the past. There is no archive of the recent activities at the website of Jordan, Lebanon, Maldives, Myanmar, Nepal, Pakistan, Qatar, Singapore, Saudi Arabia, Sri Lanka, Uzbekistan and Vietnam.

**Table 2: Features of the URL of the Homepage**

S.N.	URL	Ban	Bhu	Chi	Cyp	Ind	Indo	Ira	Irk	Jap	Jor	Kaz	Leb	Mal	Mya	Nep	Pak	Qat	Phi	Sin	Sau	Sri	Uzb	Vie
7	Recall value of URL	1	0	1	0	1	1	1	1	1	0	0	0	0	1	1	1	1	0	1	0	1	1	1
8	Responsiveness with both “www.library.com” and “library.com”.	0	0	0	0	1	0	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1
9	Use of country’s top level domain	1	1	1	1	1	1	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1

**6.2 URL:** Intuitive URL has more recall value therefore this is a very significant feature. Among the selected national libraries' websites of Asia, it was observed that 65.21% (15) websites had a simple and memorable URL. Further it did not add any complex code or even "index.html" after the domain name. On the other hand 34.78% (8) websites used some kind of code after the domain name such as "intex.html", "default.aspx", "page.php", "index.php" etc.

It has been observed that whether the URL of the website responds to both "[www.library.com](http://www.library.com)" and "library.com" or not. It was found that only 69.56% (16) websites responded in both the way and remaining 30.43% (7) websites did not respond when suffix "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 86.95% (20) websites were using country's top level domain name and only 13.04% websites were using other domain name such as .org, .com.

**Table 3: Features of the Window Title of the Homepage**

S.N.	Window Title	Ban	Bhu	Chi	Cyp	Ind	Indo	Ira	Irk	Jap	Jor	Kaz	Leb	Mal	Mya	Nep	Pak	Qat	Phi	Sin	Sau	Sri	Uzb	Vie
10	Begin the window title with the informative word	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	0	1
11	Don't include the top-level domain name, such as ".com" in the window title.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1

**6.3 Window Title:** Window title plays very significant role in the retrieval of website through the search engine which is determined by the title tag of each HTML (Hyper Text Markup Language) document. Search engine use the window title when user search through search engine. So it should be as specific as possible and should begin with informative word, usually the name of the library. Among the selected national libraries' websites of Asia, it has been revealed that all the websites provided window title to the homepage except National Library of Uzbekistan. Sometime window titles begin with the term "Welcome" or "Homepage," which is not wrong but it does not distinguish site information. An analysis shows that two national libraries i.e. National Library of Jordan used the window title entitled "Home: Department of the National Library" and National

Library of Saudi Arabia used the term “KFNL Default Page” which were not started with the name of the library. Rest of national libraries started the window title with the name of the library. An analysis revealed that all the websites did not include the top-level domain name such as .com, .in, .pk etc. in the window title.

**Table 4: Features of Date and Time**

S.N.	Date and Time	Ban	Bhu	Chi	Cyp	Ind	Indo	Ira	Irk	Jap	Jor	Kaz	Leb	Mal	Mya	Nep	Pak	Qat	Phi	Sin	Sau	Sri	Uzb	Vie
12	Use international time zone.	0	0	1	1	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
13	Spell out the month in date	0	1	0	0	0	1	0	1	0	0	0	0	0	1	1	1	1	1	1	1	0	1	0

**6.4 Dates and Times:** National libraries have international users so it should use international time zone on its website and those using local time zone must use standard abbreviation. In this study only 30.43% (7) websites were using international time zone and rest of 69.56% (16) websites were using local time zone on the website. To obtain clarity with regard to the date on the website, it’s better to spell out the month, instead of writing it in number. It was found that 47.82% (11) websites met this criterion and 34.78% (8) websites were not following this pattern. Both (spell out the month and using number to show the month) format of date was found on 17.39% (4) websites. It is advisable to follow only one pattern of date to avoid any type of ambiguity.

**Table 5: Features of the Content Writing**

S.N.	Content Writing	Ban	Bhu	Chi	Cyp	Ind	Indo	Ira	Irk	Jap	Jor	Kaz	Leb	Mal	Mya	Nep	Pak	Qat	Phi	Sin	Sau	Sri	Uzb	Vie
14	Use user-friendly language	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Avoid redundant content	0	0	0	1	0	1	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	1	1
16	Labelling a clearly defined area should be avoided	1	0	1	0	1	0	1	1	0	0	1	0	0	0	1	0	0	1	1	1	1	0	1
17	Spell out abbreviations and acronyms.	1	0	0	1	1	1	0	0	1	1	0	1	0	0	0	1	1	1	0	1	1	0	0

**6.5 Content:** Writing for a webpage is different from writing for a printed source. On the web, users are scanning the webpages instead of reading. Libraries have their own terminology but users are not familiar with these technical terms. It is necessary to use users' friendly language or define the technical terms wherever it is necessary. All the selected national libraries frequently used technical terms on its 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 technical term used on the website.

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 for that redundancy should be avoided on the homepage. The analysis shows that 65.21% (15) websites had the repetition of content on the homepage. The type of links which were repeated on the websites includes about us, history, online exhibition, resources, publication, services, new events, collection, e-resources, photo gallery, OPAC, contact us, site map, FAQ etc.

Sometimes content is self-sufficient to explain and there is no need to label them. For example search box on the homepage with a button search/Go is understandable that website provide search facility so there is no need to label it. On the same way sign and symbol of tweeter and facebook is also self-explanatory. It was observed that 47.82% (11) websites label content which is self-explanatory. The content which was labelled and did not need any type of labelling was quick links, search, latest tweet, calendar of event, visitor counter, navigation menu etc. Table highlights that 52.17% libraries' websites in Asia spell out abbreviations and acronyms to provide immediate understanding to all users, especially for person, using a screen reader but 47.82% 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.

**Table 6: Navigation Features of the Website**

S.N.	Navigation	Ban	Bhu	Chi	Cyp	Ind	Indo	Ira	Irk	Jap	Jor	Kaz	Leb	Mal	Mya	Nep	Pak	Qat	Phi	Sin	Sau	Sri	Uzb	Vie
18	An active link to the homepage on the homepage should be avoided.	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	Path information on each webpage should	0	1	1	0	0	0	1	0	1	1	1	0	0	1	0	0	1	1	0	1	0	0	1

	be provided.																							
20	Provide homepage link on every page	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1
21	Link should start with informative words	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	Allow link colours	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
23	Don't use generic instructions, such as "Click Here" as a link name.	0	1	1	1	0	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1
24	Don't use the word "Links" to indicate links on the page	0	0	1	1	1	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1

**6.6 Navigation:** The primary purpose of a homepage is to facilitate navigation. 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. A link to the homepage on the homepage is clickable, users will inevitably click on it and wonder if the page has indeed changed. The analysis shows that 91.3% (21) websites provided an active link to the homepage on the homepage. Path information will make the users aware of from where they started and now where they are. This feature was available only 47.82% (11) websites and 52.17% (12) websites did not have such type navigation feature. The collected data shows that all the websites provided link to homepage from each webpage of the website except National Library of Maldives. Labelling of links on the homepage should be as specific and brief as possible. It should start with informative word. Analysis shows that 91.3% (21) websites followed this norm. Two websites which did not follow this criterion includes national library of India and Iraq. 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. Each website should allow change of link colour to indicate visited status. Among the selected websites of national libraries in Asia only three national libraries (13.04%) i.e. National Library of China, Japan and Nepal allowed the link colours to show visited and not visited status. Majority of national libraries under study did not use generic instruction such as “Click Here” except national library of Bangladesh, India, Iraq and Maldives. It was found that that instead of underlining or colouring, some national libraries (21.73%) 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.

**Table 7: Searching Feature of the Website**

S.N.	Search	Ban	Bhu	Chi	Cyp	Ind	Indo	Ira	Irk	Jap	Jor	Kaz	Leb	Mal	Mya	Nep	Pak	Qat	Phi	Sin	Sau	Sri	Uzb	Vie
25	Provide an input box instead of just giving them a link to search.	1	0	1	1	0	1	1	0	1	1	1	0	0	1	0	1	1	0	0	1	1	1	0
26	Input boxes should be wide	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	Don't label the search area with a heading; instead use a "Search" button to the right of the box.	1	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	0	1	1	1	0

**6.7 Search:** The main goal of the users on the website is to find the information as quickly as possible. Attempt was made to analyse all search features of the national libraries’ websites. A total of 39.13% (9) websites did not have a way to search the website. Remaining 60.86% (14) websites had the search facility with the search box on the homepage of the website. In the search box, 30 characters should be visible so that a user can see the entire search and modify it during the search. Only 13.04% websites met the 30 character benchmark. Rest of the libraries had the search box below 20 characters. The data shows that among the 60.86% (14) websites which provided site search option on its website, five libraries label the search box with the heading ‘Search’ instead use a "Search" button to the right of the box. The nine websites of national library i.e. national library of Bangladesh, China, Japan, Jordan, Kazakhstan, Qatar, Saudi Arabia, Sri Lanka and Uzbekistan did not label the search area, in its place they provided the search button on the right of the box.

**Table 8: Graphics and Animation of the website**

S.N.	Graphics and Animation	Ban	Bhu	Chi	Cyp	Ind	Indo	Ira	Irk	Jap	Jor	Kaz	Leb	Mal	Mya	Nep	Pak	Qat	Phi	Sin	Sau	Sri	Uzb	Vie
28	Alternate tag provided for non-text elements.	0	1	0	1	1	0	1	1	1	1	1	1	1	1	0	0	1	1	0	1	0	0	1
29	Avoid watermark graphics.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

30	Having mechanism to control scrolling and blinking the content.	0	0	1	0	1	1	0	0	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1
----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

**6.8 Graphics and Animation:** A meaningful explanatory text description must be provided for images, graphics and other non-text elements. For that ALT tag must be defined in the coding of the webpage. This will help for those users who use text- only browser and who are sights impaired. The data shows that 65.21% (15) websites satisfied this measure and 34.78% (8) websites not fulfil this criterion of usability. Watermarks graphics decrease the visibility and add no value to the text. All the websites under study avoided the use of watermarks on the homepage of the websites. To emphasize the content or to bring in notice particular information to the users, content is animated. But there should be some mechanism in the hand of uses to control the scrolling and blinking of the content. Only 52.17% (12) websites provided some sort of mechanism to their user on the website to control the animation.

## 6. Findings of the Study

On the basis of evaluation carried out through checklist and observation of homepage of websites of selected national libraries under study, relevant findings are discussed as under:

After evaluating the homepage of selected websites under study it was found that the National Library of Japan is at rank number one among 23 national libraries of Asia selected for this study after scoring 23 points out of 30 usability point and National Library of Maldives at the bottom rank after scoring 8 points out of 30 usability points as highlighted in Figure number 2.

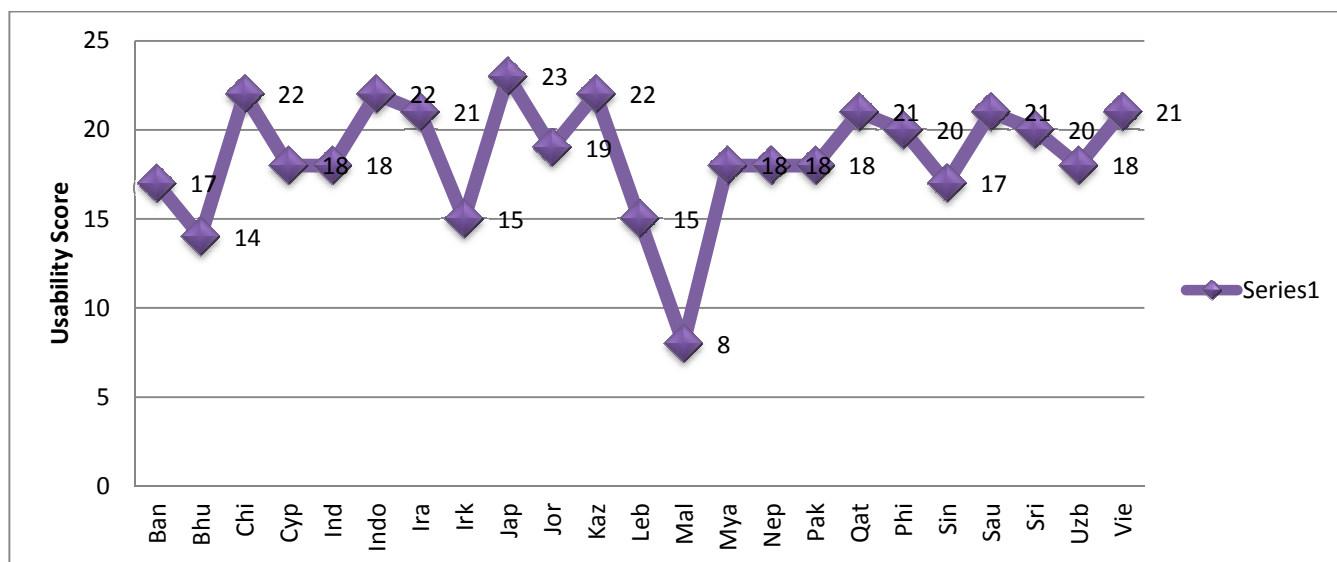


Figure 2: Usability Score of Websites of National Libraries of Asia

The other major findings of the study are as obtain after evaluation of homepage of websites of 23 national libraries of Asia on the basis of relevant features included in the checklist are as under:

Homepage of the website immediately communicate where the users are, what the library does and what users can do at a website. In this study majority of websites put the name and logo of library at the upper left corner of the website at a reasonable size. Users always want to know the overview of the library. All this information should be grouped together under “About Us” section with a link to homepage. In this study “About us” section is missing on the websites of Indonesia, Lebanon and Maldives. Different terms used for labelling this section on websites of national libraries are Library, Visit Us, General Information, More about the National Library, About the Organization, About the Library etc. To encourage the site visitor to visit the library or to contact the library directly, link to contact us should be available on the homepage with all the relevant details. This study reveals that majority of websites provide only physical address and email address. Location map is available on website of China, Jordan, Kazakhstan and Saudi Arab. Contact information of each Department is available on the websites of Cyprus, Japan, Philippines and Singapore only.



Users always interested to know what library done in the past. But in this study archive of recent activities is missing on the websites of Jordan, Lebanon, Maldives, Myanmar, Nepal, Pakistan, Qatar, Singapore, Saudi Arabia, Sri Lanka, Uzbekistan and Vietnam.

A simple homepage URL helps the users to easy recall and quickly understand them that they are on the right track. In this study only ten national libraries (India, Iraq, Japan, Nepal, Pakistan, Qatar, Singapore, Sri Lanka, Uzbekistan and Vietnam) have simple and memorable URL of the homepage and other have complex one which some time make users confused. To save the time of users and avoid the URL from long and scary looking, URL of 16 national libraries work both the way, with or without suffix 'www' and websites of the national libraries of Bangladesh, Bhutan, China, Cyprus, Indonesia, Myanmar, and Philippines, do not work when suffix "www" was removed. National libraries are known by the name of respected country. Its URL address should use the country's top level domain name. In this study three national libraries (Iraq, Lebanon and Maldives) do not use their countries' top level domain name in the URL of the website.

A simple and straightforward window title plays a critical role in bookmarking and finding the website with search engine. In this study all the websites have a window title except National Library of Uzbekistan. On the web, users just scan the text instead of reading. Each piece of information should be catchy and informative on the web. This study reveals that the window title of all the websites start with the name of library except two i.e. National Library of Jordan and National Library of Saudi Arabia. To understand the significance of window title of homepage, all the national libraries avoided an unnecessary words such as .com, in, .pk, .jp etc in the window title. For date and time, it is important to format them in such a way, so that all the users will be able to translate them to their local time. National libraries have local, national and international users. This study finds that only seven websites of national libraries (China, Cyprus, Indonesia, Iran, Japan, Kazakhstan and Vietnam) are using international time zone. In the same way, month in date is spell out only by eleven websites of national libraries (Bhutan, Indonesia, Iraq, Myanmar, Nepal, Pakistan, Qatar, Philippines, Singapore, Saudi Arabia and Uzbekistan) and four websites are using both (spell out the month and using number to show the month) pattern of date.

Writing for webpage is totally different from writing a print source. On web users just scan the literature rather than reading. In this study, for labelling the sections and categories all the national libraries are frequently using technical terms on the homepage but National Library of Indonesia provides link to the dictionary of library terminology on the homepage of the website. Repeating identical items such as about us, history, resources, services collection, e-resources, OPAC is most common on the websites of national libraries in Asia. To help the readers specially who use a screen

reader only the websites of Bangladesh, Cyprus, India, Indonesia, Japan, Jordan, Lebanon, Pakistan, Qatar, Philippines, Saudi Arabia and Sri Lanka spell out the abbreviations and acronym.

Homepage serve as the portal to the website and thus tend to have more links than other webpages. Proper navigational tools should be available on the homepage for navigating the website. Using different colour for showing visiting status helps in scanning the links. In this study only three websites (China, Japan and Nepal) allow changing of colour to show visited status. This study also reveals that majority of homepage have a clickable “Home” link which does not lead to any other webpage and just distract the users. Path information of the present location on the website helps the users to know from where they started and now where they stand on the website. In this study this feature is available only eleven websites (Bhutan, China, Iran, Japan, Jordan, Kazakhstan, Myanmar, Qatar, Philippines, Saudi Arabia and Vietnam). Link to homepage from each webpage of the website is available on all the websites of national libraries in Asia except National Library of Maldives.

Search is one of the most important elements of the homepage, and it's essential that users be able to find it easily and use it effortlessly. In this study, nine websites of national libraries (Bhutan, India, Iraq, Lebanon, Maldives, Nepal, Philippines, Singapore and Vietnam) do not provide any search facility. The data collected also reveals that the size of the search box on the homepage is less than 30 characters in most of the websites of national libraries in Asia. Graphic are used to enhance the content on the homepage. Explanation of the graphic with help of ALT tag is available only on 15 websites of national libraries and eight websites do not have ALT tag. Watermark graphics (background images) add clutter and often decrease visibility. In this study all the websites avoid watermark graphics on the homepage of the website. Animation is used to put the content into the notice of the users. Among the selected national libraries only 12 provide facility to control the blinking of animation in the hand of users.

## **7. Suggestions**

- Websites of national libraries should have simple and memorable URL. It should work both with and without the suffix “www”.
- Websites of national libraries should use country’s top level domain name to show its identity at international level.
- Homepage or even each webpage of the website should have a simple, straightforward window title. Title should begin with an informative word i.e. the name of the library.
- One pattern of date should be followed on the whole website. Month should be spelled out instead of using number.

- The 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 upper left corner of the website.
- Link to “About Us” section should be available on the homepage which should contain comprehensive information about the library and its different activities. One standard word should be followed for its labeling.
- “Contact Us” section should include full physical address, e-mail address, map of the location, FAQ and the contact detail of each section and the directory of library staff.
- National library’s website should provide archive of the past events.
- National library should use user friendly language instead of library terminology on the website and provide description wherever use of technical language is mandatory.
- There should be no duplication of links on the homepage of the website of national library.
- Abbreviations and acronyms should be spelled out wherever required.
- Proper navigational tools should be incorporated into the website so that user moves around the website easily.
- 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 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 tag should be provided for all the non-textual elements on the website.
- National libraries’ website should not use scrolling text, marquees, and constant running animations because these are distracting the users, if using, than there should be some control in the hand of users.

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Appendix 1

**List of Abbreviations**

<b>S.N.</b>	<b>Abbreviation</b>	<b>Country Name</b>
1	Ban	Bangladesh
2	Bhu	Bhutan
3	Chi	China
4	Cyp	Cypres
5	Ind	India
6	Indo	Indonesia
7	Ira	Iran
8	Irk	Iraq
9	Jap	Japan
10	Jor	Jorden
11	Kaz	Kazakhstan
12	Leb	Lebanon
13	Mal	Maldives
14	Mya	Myanmar
15	Nep	Nepal
16	Pak	Pakistan
17	Qat	Qatar
18	Phi	Philippines
19	Sin	Singapore
20	Sau	Saudi Arabia
21	Sri	Sri Lanka
22	Uzb	Uzbekistan
23	Vie	Vietnam