

EVALUATING WEB-BASED RESOURCES, SERVICES AND FACILITIES AVAILABLE IN LIBRARY WEBSITES: A CONTENT ANALYSIS OF INDIAN INSTITUTES OF MANAGEMENT (IIM)

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ABSTRACT

This paper attempts to understand the ways adopted by Indian Institutes of Management libraries to manage, organize and provide accessibility of information resources and facilities through their websites. All the IIM library websites were checked and evaluated with the help of check list through website optimization.com. Major findings of the study are; the most productive and active website is IIM library, Ahmedabad, all library websites provide information about library, have e-resources, print documents, provide Current Awareness Service, have social media tools, provide accessibility from different browsers, presentation of images and public accessibility of content. Majority have link to government schemes. Suggestions for improvement provided.

Keywords: *Websites, Portals, Library Websites, Library Portals, Library Web Page, Library Services, Library Resources, E-resources, Web Content, Web Content Analysis, Content analysis, Institutional Repositories, Evaluation, Social Networking Linkages, Indian Institute of Management, IIM Library Websites, India.*

1. Introduction

The library website plays an important role for an institution. The library website/webpages are the primary sources of information where they provide information for their users. Content analysis has been used to examine websites and to establish best practices for content creation and design. The important quality of any website is that, it has to be up-to-date; information should be easily accessible and maintained properly. The library website is known as the gateway of an institution where they can communicate with their users. The analysis of library website is an important practice and it has to be done from time to time.

Indian Institutes of Management (IIMs) are located in different parts of the country. Their main role is to provide people with quality management science education to do jobs in various sectors of the Indian economy. There are altogether twenty (20) IIMs in the country (www.en.wikipedia.org/wiki/Indian_Institutes_of_Management). The IIMs are registered societies governed by their respective Board of Governors. The IIMs located at Ahmedabad, Kolkata, Bangalore, Lucknow, Indore, Kozhikode and Shillong are the oldest IIMs established in the country. The other six (6) new IIMs have been set up during the eleventh Five Year Plan are at Rohtak,

Raipur, Ranchi, Tiruchirappalli, Kashipur and Udaipur and with the increasing demand of management education as economy is expanding, there is a dire need of management professionals, educationists and researchers in the field. The Government of India established four new IIMs later, namely; IIM Vishakhapatnam, IIM Sirmaur, IIM Sambalpur and IIM Jammu. These IIMs conduct different courses like postgraduate diploma programs, fellowship programs, short-term management programs, executive programs, etc. The present study has been conducted on 19 IIM libraries. IIM Vishakhapatnam was excluded from this study because of inaccessibility and need for login IDs to view the content of the website during this survey. Even though there are several studies on IIM as well as its library websites, the present one is recent and covers the complete IIMs in India.

2. Review of Literature

An extensive literature survey has been conducted on web content analysis for evaluating the web contents of the library website/portals. It is seen that there are a number of studies on the websites of various types of educational institutions from India as well as abroad. There are few studies on the websites of IIMs done during different periods. Since there are plenty of studies on websites of different types of institutions, those studies on IIMs only are discussed here.

A recent study by Wani (2021) is a content analysis of the selected library websites of Indian Institute of Managements in India. The purpose of research by Maharaj et al. (2021) is to look at the website analysis of 43 Indian Institutes (IIT and IIM). This jointly written article by Gangwar and Verma (2021) aims to assess the library webpages of Indian Institute of Management (IIMs) in north India which has been done with the help of a check list.

The paper by Punwatkar and Salunke (2018) discusses about IIM library websites and discusses the contents available over the website. Verma and Shukla (2018) evaluates the usability, efficiency and effectiveness of Indian Institutes of Management libraries websites. The study of Verma and Devi (2016) is based on the information available in the library web pages of IIMs. Here also a check list was designed and evaluated. A joint study by Madhusudhan and Noushad (2013) evaluates multimedia content and user interface features of select library websites of Indian Institutes of Management (IIMs) in India. Content analysis of six IIM library websites has been studied by Sampath Kumar et al. (2009). These websites were evaluated by a check list.

3. Objectives of the Study

The main objectives of the study are:

1. To find out the detailed contents and characteristic features of IIM library websites.
2. To assess the resources, services and facilities provided in these websites.
3. To find out the availability of social media/tools in the websites.
4. To examine the structure, organization, accessibility, currency and coverage of website.
5. To find out the special feature, services and facilities provided in the websites.
6. To put forward suggestions for improvement.

4. Methodology

Extensive literature survey was conducted; and checklist was designed to evaluate the web resources available on the

IIM libraries websites and according to the need of the study it has been divided into seven parts consisting of a number of items. At present, 20 IIMs are functioning in different regions of the country. All the library websites of IIM were visited, except IIM library, Vishakhapatnam. Therefore, this study was limited to 19 IIMs which were accessible. Attempt has been made to accommodate all the necessary items in the check list and pin-pointed analysis has been done on the contents available on IIM library websites. The IIM library website page was checked and evaluated between the period of 1st December to 31st December, 2021 and the data was again checked and verified between the period of 1st March to 25th March, 2022. The Website Optimization.com (Web Page Analyzer Tool) is employed to know the user interface of the website of IIM libraries. The list of the 19 IIM library website/web page taken for the present study with their URL and year of establishments are given in appendix-1.

5. Analysis of Data and Interpretation

There are various features of library websites which were analyzed and accordingly the following interpretations are presented. For each IIM library every variable was recorded in the checklist, that is general information about library, availability of content whether available in print and electronic form, social networking linkages, statement of responsibility, structure, organization, accessibility, currency and coverage, special features, services and facilities and other contents available on website. Every single library resource, service, facilities and features is provided by the library website

directly or indirectly were noted. Some libraries provided all the resources on their library website's homepage through their link to OPAC, institutional repositories, remote access and web based digital library services. All the sources of information available on the library website for conducting this research have been checked for reliability, authenticity and has been presented in a well-defined manner in the following sections.

5.1. Website Classification by Size

The information given in table 1 shows the accessibility of IIM libraries measured by size and speed. The Website Optimization.com (WebPage Analyzer Tool) is used for collecting the required data of the IIM libraries website. The researcher excluded 11 IIM libraries' website/webpage from the analysis because when tried on web page analyzing tool these libraries did not respond. They are IIM Ahmadabad, IIM Bangalore, IIM Lucknow, IIM Sirmaur, IIM Rohtak, IIM Amritsar, IIM Sambalpur, IIM Udaipur, IIM Bodh Gaya, IIM Raipur and IIM Ranchi have surpassed (3000000 bytes) which is maximum so the data cannot be accessed and therefore the researcher applied webpage analyzer tool only on 8 IIM libraries' websites which are mentioned in table 1.

It is seen that IIM Nagpur has the maximum website size (in bytes) is 1534360 and the total image size is 1403210. Next in order is IIM Tiruchirappalli with website size 1053797 and image size 936105.

Among all the IIMs, IIM Tiruchirappalli takes more time for downloading i.e. 218.22 s at 56K connection. Details of the rest of the IIMs are shown in table 1.

Table 1
Website Classification by Web Page Size

SI. No.	Name of IIM	Total Size of Website in Bytes	Total Size of Images in Bytes	Percentage of Images in Total Size (%)	Download Time at 56 K Connection in s.
1	IIM Nagpur	1534360	1403210	91.45	118.08
2	IIM Tiruchirappalli	1053797	936105	88.83	218.22
3	IIM Indore	657379	475137	72.27	154.79
4	IIM Kozhikode	634428	576666	90.89	135.04
5	IIM Jammu	606089	179389	29.59	125.79
6	IIM Shillong	573204	455727	79.50	118.44
7	IIM Calcutta	458143	332681	72.61	135.04
8	IIM Kashipur	401647	85764	21.35	97.85

5.2. General Information in IIM Websites

Library website is the best source for providing general information such as about the library, news, library timing, library team, library rules, membership details, etc. All the libraries of IIM provide the information about library, except IIM library of Visakhapatnam. Information about history is given by cent percent of IIMs. Information about Mission/Vision/Objectives is provided by 16 IIM libraries. These are IIM library Calcutta, Ahmedabad, Bangalore, Lucknow, Kozhikode, Indore, Shillong, Rohtak, Ranchi, Raipur, Tiruchirappalli, Kashipur, Udaipur, Nagpur, Amritsar, Bodh Gaya, Sirmaur, Sambalpur and Jammu.

Contact us provision is offered by 17 IIM libraries viz. IIM library Ahmedabad, Bangalore, Lucknow, Kozhikode, Indore, Rohtak, Ranchi, Raipur, Tiruchirappalli, Kashipur, Udaipur, Nagpur, Amritsar, Bodh Gaya, Sirmaur, Sambalpur and Jammu.

Useful/Quick Links/Important Links is offered by 15 IIM libraries. These are IIM library Ahmedabad, Bangalore, Lucknow, Kozhikode, Indore, Shillong, Rohtak, Ranchi, Raipur, Kashipur, Udaipur, Nagpur, Amritsar, Bodh Gaya and Sirmaur,

IIM libraries numbering to 14, provide the information about the library hours. They are IIM library Calcutta, Ahmedabad, Bangalore, Lucknow, Kozhikode, Indore, Rohtak, Raipur, Tiruchirappalli, Kashipur, Udaipur, Nagpur, Amritsar, Bodh Gaya, and Jammu. Twelve IIM libraries provide the information about the library rules & regulations, these are IIM library Ahmedabad, Bangalore, Calcutta, Lucknow, Kozhikode, Indore, Raipur, Tiruchirappalli, Kashipur, Nagpur, Bodh Gaya, and Jammu.

Library membership information is provided by 11 IIM libraries. Those IIM libraries providing information about library hours are 11. They are IIM library Ahmedabad, Bangalore, Lucknow, Kozhikode, Indore,

Raipur, Tiruchirappalli, Kashipur, Nagpur, Bodh Gaya, and Jammu. Library Staff information is provided by 11 IIM libraries. They are IIM library Calcutta, Ahmedabad, Bangalore, Lucknow, Kozhikode, Indore, Raipur, Kashipur, Nagpur, Amritsar, Bodh Gaya, Sirmaur, and Sambalpur.

Frequently Ask Questions (FAQ) are offered by 8 IIM libraries viz. IIM library Ahmedabad, Bangalore, Kozhikode, Ranchi, Raipur and Tiruchirappalli. Information about Library location is provided by 6 IIM libraries, these are IIM library Ahmedabad, Bangalore, Lucknow, Indore, Kozhikode and Ranchi.

Library committee is offered by 5 IIM libraries. Five IIM libraries provide the information about the news and events. These are IIM library Ahmedabad, Bangalore, Raipur, Kashipur, Nagpur, Bodh Gaya, and Jammu.

Ask a librarian is offered by 4 IIM libraries. They are IIM library Calcutta, Ahmedabad, Bangalore and Kozhikode. Event Calendar is provided by the IIM library Ahmedabad and IIM Bangalore. Information about Collection Development policy is provided by only two IIM libraries and they are IIM library Bangalore and Kozhikode.

Table 2
General Information in Library Web Page

SI. No.	Criteria/Parameter	Frequency	Percentage
1	About/History	19	100.00
2	Mission/Vision/Objectives	16	84.21
3	Contact Us	17	89.47
4	Useful/Quick /Important Links	15	78.94
5	Library Hours/Timing	14	73.68
6	Library Rules & Regulations	12	63.15
7	Library Membership	11	57.89
8	Library Staff/Team	11	57.89
9	FAQ	08	42.10
10	Library Location	07	36.84
11	News & Events	05	26.31
12	Library Committee	05	26.31
13	Ask a Librarian	04	21.05
14	Event Calendar	02	10.52
15	Collection Development Policy (CDP)	02	10.52

5.3. Library Resources in IIMs

The Academic library is recognized from the collection it holds. Usually, library collection consists of electronic resources, print sources and other type of documents.

Cent percent (19) of the libraries have e-journals, e-books, e-newspapers & magazines, e-reference sources and e-data bases. New arrival is offered in 10 IIM libraries. These are IIM library Ahmedabad, Nagpur, Calcutta, Indore, Bangalore, Kozhikode, Sambalpur, Tiruchirappalli, Bodh Gaya, and Jammu. Resources for trial is offered by 7 IIM libraries. They are IIM Ahmedabad, Bangalore, Indore, Tiruchirappalli, Raipur, Rohtak and Kashipur. CDs/DVDs is offered by 6 IIM libraries viz. IIM library Ahmedabad, Calcutta, Indore, Kozhikode, Shillong and Kashipur. Audio/Video service is offered by 7 IIM libraries. They are IIM libraries of IIM Ahmedabad, Calcutta, Bangalore, Kozhikode, Shillong, Amritsar and Kashipur. E-dataset is available only in IIM library of Ahmedabad, Bangalore and in Kashipur.

Print books, print journals and print reference sources are available in all IIM libraries, whereas print newspapers are subscribed in seven libraries only.

Among the other type of documents, conference and seminar proceedings is provided by 12 libraries of IIMs. These are IIM library Ahmedabad, Bangalore, Indore, Kozhikode, Raipur, Ranchi, Rohtak, Udaipur, Shillong, Sirmaur, Sambalpur Tiruchirappalli, Kashipur, and Jammu. Project/Research Report is provided by 12 IIM libraries. They are IIM library Ahmedabad, Calcutta, Bangalore, Lucknow, Indore, Kozhikode, Shillong, Raipur, Rohtak, Udaipur, Sambalpur and Kashipur. Thesis and Dissertations is available in 10 IIM libraries viz. IIM Ahmedabad, Calcutta, Bangalore, Indore, Kozhikode, Raipur, Ranchi, Udaipur, Shillong, Bodh Gaya, and Kashipur. Case File is provided by 10 IIM libraries. These are IIM library Calcutta, Indore, Kozhikode, Raipur, Ranchi, Udaipur, Shillong, Amritsar, Sambalpur and Jammu. Books and book chapter is provided by 8 IIM libraries., viz IIM library Bangalore, Indore, Raipur, Ranchi, Rohtak, Sambalpur Tiruchirappalli, and Jammu. Working papers are provided by 7 IIM libraries viz. IIM library Ahmedabad, Bangalore, Indore, Kozhikode, Shillong, Udaipur, Shillong and Jammu. Question papers is provided by only one library and this is IIM library Ahmedabad.

Table 3
Library Resources (Print/Electronic) in IIM

Sl. No.	Criteria/Parameter	Frequency	Percentage
	Electronic/Digital Resources		
1	E-journals	19	100.00
2	E-books	19	100.00
3	E-newspapers and magazines	19	100.00
4	E-reference sources	19	100.00
5	E-data bases	19	100.00
6	New arrivals	10	52.63
7	Resources for trial	07	36.84
8	CDs/DVDs	06	31.57
9	Audio/Video	04	21.05
10	E-data set	03	15.78
	Print Resources		
11	Books	19	100.00
12	Journals	19	100.00
13	Reference sources	19	100.00
14	Newspapers and magazines	07	36.84
	Others		
15	Conference/Seminar Proceedings	12	63.15
16	Projects/Research Reports	12	63.15
17	Theses/Dissertations	10	52.63
18	Case files	10	52.63
19	Books/Book chapters	07	36.84
20	Working papers	07	36.84
21	Others (Questions papers/ Teaching notes, Meeting minutes etc.,)	02	10.52

5.4. Library Services and Facilities

Current Awareness Service is provided by all IIM libraries. Circulation/Borrowing/lending Services is offered in 14 libraries of IIM. They are IIM library Ahmedabad, Calcutta, Bangalore, Lucknow, Indore, Kozhikode, Raipur, Rohtak, Shillong, Bodh Gaya, Nagpur, Tiruchirappalli, Kashipur, and Jammu. Link to remote access and link to OPAC/Web OPAC is offered in 15 IIMs libraries viz. IIM Ahmedabad, Calcutta, Bangalore, Indore, Kozhikode, Raipur, Rohtak, Udaipur, Shillong, Bodh Gaya, Nagpur, Amritsar, Tiruchirappalli, Kashipur, Vishakhapatnam and Jammu.

Photocopy services and Inter Library Loan (ILL) services is provided by 09 IIMs libraries. Reference Service is available in 8 IIMs libraries. These are IIM Ahmedabad, Kozhikode, Raipur, Shillong, Nagpur, Tiruchirappalli, Kashipur and Jammu. Similarly user awareness/education service is offered in 8 IIM libraries. They are IIM library Ahmedabad, Bangalore, Lucknow, Kozhikode, Nagpur, Indore, Raipur and Kashipur.

Fully Automated/Computerized Library System is offered by 7 IIM libraries. These are Raipur, Ranchi, Udaipur, Shillong, Bodh Gaya, Kashipur, and Jammu. Information Alert Service/E-mail Alert service is offered in 7 IIM libraries viz. IIM Kozhikode, Raipur, Shillong, Bodh Gaya, Nagpur, Kashipur, and Jammu. Link to National Digital Library is offered in 6

IIM libraries, They are IIM library Ahmedabad, Kozhikode, Sambalpur, Udaipur, Bodh Gaya and Kashipur. Link to Institutional repository (IR) is available in 6 IIM libraries. These are IIM library Ahmedabad, Bangalore, Kozhikode, Raipur, Ranchi, Rohtak.

Five IIM libraries are providing reservation and purchasing service and are IIM Ahmedabad, Calcutta, Bangalore, Indore, and Ranchi. Discovery Service/Single Search service provided in 5 libraries such as IIM Ahmedabad, Calcutta, Bangalore, Kozhikode, Bodh Gaya. Link to Institutional repository (IR) is available 5 IIM libraries and are IIM Ahmedabad, Bangalore, Kozhikode, Raipur and Ranchi. Selective Dissemination of Information (SDI) is offered in 4 libraries of IIMs. Bibliography/Documentation Service is provided by 4 IIMs libraries. Link to IIM Consortia is offered in four IIMs libraries.

News Clipping Service is being offered in 3 IIMs libraries and they are Shillong, Ranchi and Bodh Gaya. Link to DELNET is provided by 3 IIM libraries. These are IIM library Ahmedabad, Tiruchirappalli and Bodh Gaya. Web based digital library services is available in 3 IIM libraries. They are IIM Ahmedabad, Calcutta, Bangalore, and Kashipur. Document Delivery Service is offered in 2 libraries of IIMs viz. Bangalore and Kozhikode. Online Chat Service is offered in 2 IIM libraries viz. IIM library Ahmedabad and Bangalore. Book Drop Box Facility is offered in IIM library Shillong and Ahmedabad.

Table 4
Library Services/Facilities

SI. No.	Criteria/Parameter	Frequency	Percentage
1	Current Awareness Service (CAS)	19	100.00
2	Circulation/Borrowing/Lending Services	14	73.68
3	Link to OPAC/WebOPAC	14	73.68
4	Remote access	14	73.68
5	Link to NIRF ranking	12	63.15
6	Research Assistant/Research Support Service	09	47.36
7	Photocopy Services	09	47.36
8	Inter Library Loan (ILL) Services	09	47.36
9	Reference Service	08	42.10
10	User Awareness/Education Service	08	42.10
11	Fully Automated/Computerized Library System	07	36.84
12	Information Alert Service/E-mail Alert Service	07	36.84
13	Link to National Digital Library	06	31.57
14	Discovery Service/Single Search Service	05	26.31
15	Book Requisition, Reservation and Purchasing Service	05	26.31
16	Link to institutional repository	05	26.31
17	Link to IIM Consortia	04	21.05
18	Link to Open Access Resources	04	21.05
19	Bibliography/Documentation Service	04	21.05
20	Book Display	04	21.05
21	Selective Dissemination of Information (SDI)	04	21.05
22	Link to DELNET	03	15.78
23	Web based Digital Library Services	03	15.78
24	Newspaper Clipping Service	03	15.78
25	Document Delivery Service	02	10.52
26	Online chat service	02	10.52
27	Kindle e-Book Reader	02	10.52
28	Book Drop Box Facility	02	10.52

5.5. Social Media/Tools

Majority of the IIM library webpages are providing Facebook Twitter, LinkedIn, Instagram and YouTube link. WordPress is available in two libraries. WhatsApp, RSS feed and Wikipedia link are provided by one library each. Wikipedia link by IIM library, Ranchi and

RSS feed by IIM Ahmedabad. Thus from the analysis it is found that IIM, Ahmedabad is offering maximum number of social media tools/social networking for information regarding library resources, facilities, news and important links to their users. Instant messaging is not available in any of the libraries.

Table 5
Social Media/ Tools in Websites

Sl. No.	Name of Social Media	Frequency	Percentage
1	Facebook	16	84.21
2	Twitter	16	84.21
3	Instagram	16	84.21
4	LinkedIn	16	84.21
5	YouTube	16	84.21
6	Library Blog	03	15.78
7	WordPress	02	10.52
8	Android Apps	01	5.26
9	Pinterest	01	5.26
10	WhatsApp	01	5.26
11	RSS Feed	01	5.26
12	Wikipedia	01	5.26
13	Instant Messaging	00	0.00

5.6. Statement of Responsibility of IIM Library Websites

Postal address is given in 17 IIM libraries. Phone number is provided by nine libraries of IIM. They are Ahmedabad, Bangalore, Indore, Lucknow, Shillong, Raipur, Amritsar, Nagpur

and Bodh Gaya. Webmail is offered in 7 IIM libraries. These are library of IIM Ahmedabad, Bangalore, Lucknow, Indore, Shillong, Raipur, Amritsar, Nagpur and Bodh Gaya. Fax facility is available only in IIM library of Ahmedabad and Indore.

Table 6
Statement of Responsibility of IIM Library Websites

Sl. No.	Criteria/Parameter	Frequency	Percentage
1	Postal Address	17	89.47
2	Phone Number	09	47.36
3	Web mail	08	42.10
4	Fax	02	10.52

5.7. Structure of IIM Websites

The analysis given in table 7, shows the qualitative part of the checklist containing various features pertaining to IIM library websites, which serves as a recording device for descriptive data. For the most part, this information is obtained from the homepage of the website also which provides the information about Structure, Organization, Accessibility, Currency and Coverage in the library webpage of IIMs.

All the IIMs can be accessed from different web browsers, have Images/Icons/Graphs, and proper arrangement of Content (Alphabetical, Numerical, Chronological, subject etc. Eighteen IIM library websites have copyright information. Websites of 15 IIM libraries provide Home Institute link. Accessibility of font size is available in 10 IIM libraries viz. IIM library Ahmadabad, Lucknow, Shillong, Ranchi, Raipur, Nagpur, Udaipur, Amritsar, Kashipur and Jammu.

Website update information is available in 8 IIM libraries viz. IIM library Bangalore, Lucknow, Raipur, Udaipur, Bodh Gaya, Nagpur, Kashipur and Jammu to their users. IIM libraries numbering to eight have Content Scroll down or Slide Show feature. They are Bangalore, Lucknow, Shillong, Amritsar, Kashipur, Raipur, Rohtak and Vishakhapatnam

Search option for library resources is provided in 6 IIM libraries. These are IIM library Ahmedabad, Bodh Gaya, Bangalore, Kozhikode, Calcutta and Indore. Accessibility of webpage' theme/brightness/color feature is available in 4 IIM library websites viz. IIM library Ranchi, Raipur, Amritsar and Jammu. Lucknow, Three of them such as Raipur, Amritsar and Nagpur have skip to main content feature. Screen reader access feature is available in 3 IIM libraries and they are IIM library, Lucknow, Nagpur and Jammu. Rest of the features can be seen in table 7.

Table 7**Structure, Organization, Accessibility, Currency and Coverage of Websites**

SI. No.	Criteria/Parameter	Frequency	Percentage
1	Accessibility from different web browser	19	100.00
2	Presentation of images/icons/graphs	19	100.00
3	Publicly Accessible for Viewing Content	19	100.00
4	Website Copyright information	18	94.73
5	Home Institute link	15	78.94
6	Personal Login Id for researcher	14	73.68
7	Website Update Information	10	52.63
8	Accessibility of fonts	10	52.63
9	Website designed and developed by	09	47.36
10	Content scroll down/up	08	42.10
11	Content arrangement (Alphabetical, Numerical, Chronological, Subject etc.)	08	42.10
12	Search facility	06	31.57
12	Accessibility of web page' theme/brightness/color	04	21.05
13	Skip to main content	04	21.05
14	Screen reader access	03	15.78

5.8. Special Features and Services

With the increasing demand from the users and optimum utilization of available resources, libraries have been trying to introduce innovative, efficient and state-of-the-art services to meet the requirement of the users to provide best services in a well-defined manner. IIM libraries are doing exceptional work regarding the incorporation and interaction of special features in their library websites. Table 9 depicts the availability of special features in the library webpage of IIMs.

Link to Government Scheme (Digital India, Election Commission of India, MHRD, Swatch Bharat etc.) is provided in 11 IIM libraries. These are IIM library Lucknow, Indore, Ranchi, Rohtak, Udaipur, Shillong, Nagpur, Amritsar, Sirmaur, Kashipur, and Jammu. Sitemap is offered by 11 IIM libraries viz. IIM library Calcutta, Ahmedabad, Indore, Shillong, Ranchi, Kashipur, Nagpur, Sambalpur and Jammu. Multilingual facilities provided in nine institutes. Download facility is available in seven IIM libraries. These are at Ahmedabad, Indore, Calcutta, Kozhikode, Raipur, Bodh Gaya and in IIM library Kashipur.

Visitor Hits/Counts is offered by 7 IIM libraries, these are IIM library Bangalore, Lucknow, Rohtak, Kashipur, Udaipur, Nagpur, Amritsar, Bodh Gaya, and Sirmaur. Online payment facility is available in IIM library of Ahmedabad, Ranchi, Sirmaur, Shillong and in Amritsar. It is observed that only IIM library, Lucknow and Bodh Gaya has provided the facility of library metrics/statistics. Facilities for visually challenged, 3D Printer, Thematic Book Display, Virtual Reality, Digital

wall is offered in IIM library Ahmadabad. QR code and Discussion Room facility is offered in two of them. They are, IIM library Ahmadabad and IIM Kozhikode.

Flip book is offered only in IIM library Jammu. None of the libraries provided library logo. It is found from this analysis that IIM Ahmedabad library (Vikram Sarabhai Library) website is offering innovative, advanced and special library features, services and facilities to their users.

Table 8
Special Features/Services/Facilities

SI. No.	Criteria/Parameter	Frequency	Percentage
1	Link to Government Scheme (Digital India, Election Commission of India, MHRD, Swatch Bharat etc.)	11	84.21
2	Site map	10	52.63
3	Multilingual (English, Hindi, and Regional Language)	09	47.36
4	Downloads	07	36.84
5	Visitor hits/counts	06	31.57
6	Online payment	04	21.05
7	Library metrics/statistics	04	21.05
8	RFID (Kiosk)	03	15.78
9	Library tagline/quotations	03	15.78
10	QR Code	02	10.52
11	Matrimonial	02	10.52
12	Discussion Rooms	02	10.52
13	Facilities for Physically/Visually challenged	01	05.26
14	Digital Wall	01	05.26
15	Virtual Reality	01	05.26
16	Thematic book display	01	05.26
17	3D Printer	01	05.26
18	Flipbook	01	05.26
19	Library Logo	00	00.00

6. Findings

- a) IIM Nagpur has the highest website size and more image size.
- b) IIM Tiruchirappalli takes more time for downloading.
- c) All the libraries of IIM provide information about library, except IIM Visakhapatnam
- d) All the libraries of IIM have e-journals, e-books, e-newspapers, e-reference sources and e-data bases.
- e) All the libraries have print books, print journals, print reference sources and print newspapers as well.
- f) All libraries provide Current Awareness Service.
- g) All libraries have social media tools viz. Facebook, twitter, Instagram, LinkedIn and YouTube.
- h) Only 89.47% of libraries provided postal address, and 47.36% gave phone number in their websites.
- i) All libraries provide accessibility from different browsers, presentation of images, public accessibility of content.
- j) Majority (84.21%) of the library websites have link to government schemes and half of them (52.63%) have site map.
- k) IIM Ahmedabad Library Website is the best one having all features revealed from this study.

7. Suggestions

1. All IIM libraries should provide collection development policy (CDP) information so that users can know the process of collection development and may recommend resources to be acquired and event calendar of library' upcoming activities on their library websites.
2. The IIM library websites must be easily accessible and user interface must be convenient so that the user can access the webpage easily, within few seconds.
3. The IIM library websites must have the link for innovative services such as interactive online discussion rooms and facilities such as lab for visually challenged students, digital resource center for accessing e-resources for their students globally.
4. All the IIM libraries should provide online payment option to the users for library related transactions such as book lost charge, overdue charge etc.
5. All IIM libraries should evaluate the quality of their library resources, services and facilities through surveys on regular basis so that they can provide best services and facilities to the users.

8. Conclusion

After analyzing the content of IIM libraries websites, it is clearly seen that IIM libraries of Ahmedabad, Bangalore, Kozhikode, Bodh Gaya and Sambalpur are doing well while other IIM libraries such as Calcutta, Indore, Lucknow, Vishakhapatnam, Tiruchirappalli, Sirmour, Amritsar, Udaipur, Nagpur and Jammu are doing fine but they need to be up to the mark and should have user friendly interface.

IIM library websites are playing an indispensable role in dissemination, communication and displaying resources, services, facilities and other things in a well-defined and appropriate manner. Some library websites are really good but some need to be updated, well-informed and user friendly. These library websites contribute a large part in generating high rank and reputation for their parent institutions. The design, user interface, flexibility of fonts, navigation, arrangement and management of resources and futuristic scope should be the moto and pivotal focus of libraries so as to achieve the desired objectives in IIM libraries.

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Appendix-1
List of IIMs Selected for This Study

Sl. No.	Name of the Institution	Year	Website URL
1	Indian Institute of Management (Calcutta)	1961	https://library.iimcal.ac.in/
2	Indian Institute of Management (Ahmedabad)	1961	https://library.iima.ac.in/
3	Indian Institute of Management (Bangalore)	1973	https://library.iimb.ac.in/library
4	Indian Institute of Management (Lucknow)	1984	http://www.iiml.ac.in/facilities/library
5	Indian Institute of Management (Kozhikode)	1996	https://iimk.ac.in/libportal/index.php
6	Indian Institute of Management (Indore)	1996	https://www.iimdr.ac.in/facilities/library/
7	Indian Institute of Management (Shillong)	2007	https://www.iimshillong.ac.in/about-iims/kc.html
8	Indian Institute of Management (Rohtak)	2010	https://www.iimrohtak.ac.in/index.php/institute/initiative/
9	Indian Institute of Management (Ranchi)	2010	knowledge-resource-centre
10	Indian Institute of Management (Raipur)	2011	https://iimranchi.ac.in/p/library
11	Indian Institute of Management (Tiruchirappalli)	2011	https://www.iimraipur.ac.in/index.php/home-lib
12	Indian Institute of Management (Kashipur)	2011	https://library.iimtrichy.ac.in/#loaded
13	Indian Institute of Management (Udaipur)	2015	http://iimkashipur.ac.in/library/about-us
14	Indian Institute of Management (Nagpur)	2015	https://www.iimu.ac.in/about/library
15	Indian Institute of Management (Amritsar)	2015	https://www.iimnagpur.ac.in/library/about-library-and-e-resource-centre/
16	Indian Institute of Management (Bodh Gaya)	2015	https://iimamritsar.ac.in/p/library.html
17	Indian Institute of Management (Sirmaur)	2015	http://14.139.203.165/
18	Indian Institute of Management (Sambalpur)	2015	http://www.iim.sirmaur.ac.in/iims/iim/library
19	Indian Institute of Management (Jammu)	2016	http://library.iimj.ac.in/