

Web-based Marketing of Information Products and Services in Arts and Science University Libraries: A Study

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Abstract

The paper aims to access the attitude of library professionals towards web-based marketing of information products and services in the university libraries. A structured questionnaire was administrated collecting data from eight arts and science university library professionals in Tamil Nadu. Statistical method includes for data analysis and five-point Likert scale used to measure the marketing attitude of the respondents. Findings showed that the respondents web-based marketing attitude was positive; majority of the university library professionals agreed that library website and social networking channels are suitable media for marketing of digital products and service. Library website can able to provide direct links to the users to access various e-resources from in and far-off places. They indicate computer, technically skilled manpower and slow speed of internet are the problems faced by the libraries to providing web-based information services in the university libraries.

Keywords: Library, Arts, Science, Web portals, Resources

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INTRODUCTION

The impact on information explosion, communication technology makes significant changes in its format, dissemination channels and user approach. The introduction of internet and social networking sites has brought together new system of library product and services. Promotional activities can take many forms and the promotional media will depend on the nature of the target audience and on promotional objectives.

Web portals are also important tools for users to access and utilize library and information services over a network. This is because an informative homepage provides users with helpful information about the library, its collection, and services. Besides, library portals also host links to important internet resources useful for the parent organization (Letha, 2006). A good library website is an effective marketing tool for marketing and disseminating digital information resources. Marketing on social networking sites is an additional channel with unique characteristics that can complement for marketing activities [1].

REVIEW LITERATURE

Madhusudhan M and Nagabjushanam V in their study focused on the access of web-based library products and services in different sections of university libraries in India, and examine the problems faced by the users in accessing web-based library information services. The study selected 20 university libraries based on efficient web-based library services offered by using library website with the help of web-based library automation software during the survey. A stratified accidental random sample method was used for selection of respondents those who were presented in the university library at the moment. A structured questionnaire was personally distributed among the 600 respondents and the response rate was 100 percent [2]. The study revealed that more than 70 percent of the respondents used various web-based services in their respective university libraries. The majority of the university libraries are not providing web forms to its users. The respondents indicate slow speed of internet, inadequate computer, insufficient time and lack of library orientation are the problems faced in accessing web-based

library services. The study found that many of the surveyed university libraries are yet to develop full potential of the web forms, and lagging behind in effective use of library website.

New trends include the development of libraries' own web sites, the sophisticated application of digital technology, more professional marketing of information products and services, outsourcing, flexi-workforce, knowledge management and participative management, which are becoming the order of the day [3].

Kamar gave a study on electronic information resources and services offered and the marketing of these resources of J.D. Rockefeller Research Library at Egerton University, Kenya. Findings revealed that J.D. Rockefeller Research Library used various marketing strategies towards effective utilization of the available resources. The strategies include use of posters, notices, brochures, telephone calls, CAS, workshops, seminars and decentralization of services etc.

Mirza and Mahmood studied content analysis of websites of 56 General University Libraries (GULs) in Pakistan. Content included existence of library website, hyperlink on university home page, type (static or dynamic) of library website, and six categories of library and information services. The six categories included general information, web OPAC, reference service, collection, circulation, and document delivery service/Inter Library Loan. Results of the study indicate that web-based services in GULs of Pakistan are in their infancy. LIS professionals must recognize the significance of web-based library services and take initiative provide web services to library users. Higher Education Commission of Pakistan (HEC), LIS educators, and professional associations should provide training opportunities to librarians to develop required skills [4].

Kiran conducted a case study to examine academic library web sites for marketing approach, promotional and public relations activities Malaysian university libraries. Interview method was used to investigate university library manager's level of awareness

of the library web site as a marketing tool and how they perceived this to be used to the library's advantage. A total of 22 library web sites were examined based on pre-determined criteria developed from the literature and initial web site investigation. Findings revealed that academic libraries are lacking in their promotional activities. Library web sites are not fully utilized as a marketing tool and an enabler to reach out to the community for promotion of services and collections. This study will be helpful to libraries planning to implement a marketing strategic plan to improve its outreach to users and enhance the users' image of the library.

Bhardwaj and others in their study attempted to discover the use of information sources and services in a web-based environment by faculty members in St. Stephen's College (Delhi) India. A questionnaire was used to collect information regarding the awareness, use, method of using the e-resources among the faculty members. The study revealed that a majority of faculty members of St. Stephen's College are aware of e-resources and frequently use them. The study further indicates that most faculty members use e-resources for teaching and research and to keep themselves up-to-date with developments in their fields. Faculty members need training in the use of e-resources and prefer.

Khan and Rubina conducted a survey about different applications of social media for marketing of library and information resources and services and investigate the respondent's attitude towards the usefulness of social media in marketing of library in Pakistan. A survey research method was administered by using a peer-reviewed and pilot-tested questionnaire. Data were collected from librarians and LIS school academicians working at Bahauddin Zakariya University of Multan and the Islamia University of Bahawalpur. Findings showed that respondent's attitude was positive; majority agreed that the use of social media is important to capture the attention of online users and helps in distance learning and knowledge sharing. Respondents recommended the use of Facebook, Wikis, LinkedIn, Blogging, YouTube and online groups for marketing different library services. They indicated that inadequate training

opportunities, lack of knowledge, privacy and identity theft, slow speed of internet and electricity failure are the problems for applying social media in libraries of Pakistan for marketing library resources and services. They demanded for trainings for social media usage and suggested that libraries should develop social media page for maximum exploitation of library services [5].

Siddike, Abul Kalam and others examined in the study that online services and resources providing the academic library web sites in public and private university libraries of Bangladesh. There are 16 library websites selected, which have direct links from the home page of the parent institution. The evaluated criteria were determined based on marketing strategies used in the library websites. The study revealed that 15 libraries have direct links from the parent institutions' home page to the library, except one private university library. The survey found that none of the academic libraries have direct links to other libraries and related associations. This statement illustrate that the poor status of networking and resource sharing in the academic libraries in Bangladesh. The study confirmed that the academic library websites are not offered 'Online user education' programme, General Service and 20 to 50 percent were not provided web OPAC services. The study concluded that academic library websites in Bangladesh are not utilized for marketing of library resources and services.

Taylor and Jennifer in a study investigated the approach to marketing and promotion adopted by independent libraries in the United Kingdom, with specific reference to the development of their digital presence. A three-phase mixed methodology approach was adopted which incorporated a website survey, a questionnaire, and telephone and face-to-face interviews. Data collection focused on the member libraries of the Association of Independent Libraries. It revealed that the independent libraries are reluctant to engage fully with marketing and technology due to limited resources, fears over security and staff numbers, and a lack of familiarity with the concepts. In libraries where staff are already

familiar with using digital technology, there is a greater uptake of digital applications on the library's behalf. The libraries can benefit from viewing their offer more flexibly and communicating with patrons in ways [6].

Lili and others in a study examined the different aspects of the library's online video marketing project, including project preparation, video production, distribution and promotion, and evaluation of students' perception of this project at an academic library in China via survey questionnaires. Factors that contributed to its success were also analyzed. The study found four factors that contributed to the success of the library's video marketing project: base video content on the real campus life; reflecting what students experience in their everyday activities; convey content in a humorous, light-hearted, and refreshing style; employ social media to share content and engage the target audience and partner with students [7].

SCOPE OF THE STUDY

There are ten arts and science public universities existing in various districts of Tamil Nadu. Out of these, eight universities have selected for the study, namely; Alagappa University, Karikudi (1985); Bharathiyar University, Coimbatore (1985); Bharathidasan University, Trichy (1982); Madras University, Chennai (1857); Madurai Kamaraj University, Madurai (1966); Manonmanium Sundaranar University, Thirunelveli (1990); Mother Teresa University, Kodikkanal (1984); Periyar University, Salem (1997) [8].

OBJECTIVES OF THE STUDY

1. To study the infrastructure and technological facilities in arts and science university libraries in Tamil Nadu.
2. To examine the marketing of digital information products and services available in each university libraries under the study.
3. To access the library professional's attitude towards the internet and web-based marketing activities in the university libraries.
4. To study the problems encountered by the library professionals for providing the library services to the users [9].

RESEARCH METHODOLOGY

For the purpose of study, well-structured questionnaire was designed. It consists of the questions related to library infrastructure facilities and a sets of statements which are designed to measure the attitude of library professional staff towards web-based marketing of information products and services. Library professional staff to respond on a scale as to agree or disagree with each statement by using the five-point Likert scale: strongly agree, agree, undecided, disagree, and strongly disagree. The SPSS statistical tool was used for data analysis. The questionnaire

was pre-tested before using it with the survey population [10].

ANALYSIS OF THE DATA

The questionnaire was distributed to all the 55 library professional staff (Librarian, Deputy Librarian, Assistant Librarian, Technical Officer, Library Assistant and Junior Assistant) working in the university libraries under the study. Out of 55 respondents, 49 valid questionnaires were received, the response rate was 89.1 percent showed in Table 1.

Table 1: Library Professional Response vs. University.

S. No.	University	Total Respondents	Total Response
1	Alagappa University (ALU)	7	6 (12.2%)
2	Bharathidasan University (BDU)	10	9 (18.4%)
3	Bharathiyar University (BRU)	9	8 (16.3%)
4	Madras University (MDU)	11	10 (20.4%)
5	Madurai Kamaraj University (MKU)	2	2 (4.1%)
6	Manonmaniyam Sundarnar University (MSU)	6	5 (10.2%)
7	Mother Theresa University (MTU)	5	4 (8.2%)
8	Periyar University (PRU)	5	5 (10.2%)
	Total	55	49 (100%)

Table 2: Distribution of Respondents Designation vs. University.

S. No.	University	Librarian	Deputy Librarian	Asst. Librarian	Library Asst.	Technical Staff	Total
1	ALU	1 (2.04%)	1 (2.04%)	3 (6.12%)	1 (2.04%)	0 (0%)	6 (12.14%)
2	BDU	1 (2.04%)	0 (0%)	5 (10.21%)	0 (0%)	3 (6.12%)	9 (18.37%)
3	BRU	1 (2.04%)	0 (0%)	3 (6.12%)	2 (4.08%)	2 (4.08%)	8 (16.32%)
4	MDU	1 (2.04%)	1 (2.04%)	4 (8.16%)	0 (0%)	4 (8.16%)	10 (20.41%)
5	MKU	1 (2.04%)	0 (0%)	0(0.0%)	0 (0%)	1 (2.04%)	2 (4.08%)
6	MSU	1 (2.04%)	1 (2.04%)	1 (2.04%)	2 (4.08%)	0 (0%)	5 (10.21%)
7	MTU	1 (2.04%)	1 (2.04%)	0 (0%)	2 (4.08%)	0 (0%)	4 (8.16%)
8	PRU	1 (2.04%)	0 (0%)	0 (0%)	4 (8.16%)	0 (0%)	5 (10.21%)
	Total	8 (16.33%)	4 (8.16%)	16 (32.65%)	11 (22.45%)	10 (20.41%)	49 (100%)

Table 2 shows that university wise distribution of respondent's designation among the university libraries. Each university has 1 (2.04%) Librarian, followed by 1 (2.04%) Deputy Librarian each in ALU, MDU, MSU and MTU. Out of 16 (32.65%) Asst. Librarians 5 (10.21%) found in BDU, 4 (8.16%) in MDU, and 3 (6.12%) in MDU and BRU. Among the university libraries the maximum 4 (8.16%) Library Assistants occupied in PRU, 2 (4.08%) indicate BRU,

MSU and MTU. Least 1 (2.04%) MSU. Out of 11 (20.41%) technical staff 4 (8.16%) working MDU, 3 (6.1%) BDU, 2 (4.08%) BRU and least 1 (2.04%) in MKU. The analysis showed that the hierarchy of staff distribution among the university libraries is highly varied [11].

Table 3 shows that the qualification wise distribution of professionals in the university libraries. Out of 49 respondents 30 (61.2%) professional staff attained PhD degrees in

library and information science subjects, followed by 12 (24.5%) have M.Phil. Degrees and rest of 7 (14.3%) completed MLIS degrees. More maximum 7 (14.3%) respondents in BDU have doctorate degrees, followed by 5 (10.2%) in ALU, 4 (8.2%) in MDU, BRU and MSU, least 2 (4.1%) in MKU, MTU and PRU. The analysis found that majority of professional staff has doctorate degrees in the university libraries [12]. Table 4 indicates that the experience of the library

professionals in arts and science universities in Tamil Nadu. Among them 3 (6.1%) have 1–5 years of experience, 9 (18.4%) 6–10 years, 11 (22.4%) 11–15 years and 8 (16.3%) have 16–20 years. Among them 9 (18.4%) staff 21–25 years, 4 (8.2%) have 26–30 years, 4 (8.2%) 31–36 years and only 1 (2.0%) have more than 36 years working experience. The analysis shows that majority of the library staff has more than 10 years working experience among the university libraries.

Table 3: Respondent's Professional Qualification vs. University.

S. No.	University	MLIS	M.Phil.	Ph.D.	Total
1	ALU	0 (0%)	1 (2.0%)	5 (10.2%)	6 (12.2%)
2	BDU	0 (0%)	2 (4.1%)	7 (14.3%)	9 (18.4%)
3	BRU	1 (2.0%)	3 (6.1%)	4 (8.2%)	8 (18.3%)
4	MDU	2 (4.1%)	4 (8.2%)	4 (8.2%)	10 (20.4%)
5	MKU	0 (0%)	0 (0%)	2 (4.1%)	2 (4.1%)
6	MSU	1 (2.0%)	0 (0%)	4 (8.2%)	5 (10.2%)
7	MTU	1 (2.0%)	1 (2.0%)	2 (4.1%)	4 (8.2%)
8	PRU	2 (4.1%)	1 (2.0%)	2 (4.1%)	5 (10.2%)
	Total	7 (14.3)	12 (24.5%)	30 (61.2%)	49 (100%)

Table 4: Working Experience of the Library Professionals.

S. No.	Years of Experience	Number of Respondents	Percentage (%)
1	1–5 years	3	6.1
2	6–10 years	9	18.4
3	11–15 years	11	22.4
4	16–20 years	8	16.3
5	21–25 years	9	18.4
6	26–30 years	4	8.2
7	31–35 years	4	8.2
8	36 above years	1	2.0
	Total	49	100.0

Table 5: Technological Facilities of the University Libraries.

Technological facilities	Automation		Software used			Separate Library website	Institutional repository Collection	Used D-space software	Barcode ID system
	Fully	Partially	Soul	Nirmal	Libnet				
Number of Universities	8 (100%)	1 (12.5)	5 (62.5)	2 (25.0)	1 (12.5)	7 (87.5)	5 (62.5)	5 (62.5)	6 (75)

(Value present in the parentheses gives percentage)

Table 5 indicates that the infrastructure facilities of arts and science university libraries in Tamil Nadu. All 8 (100%) university libraries automated with branded library application software's like, Soul (62.5%), Nirmal (25%) and Libnet (12.5%). There are 5 (62.5%) universities libraries

which have developed institutional repositories of parent institute theses, research articles and question banks which can preserves and disseminate through open source web forms to the users. All the university (100%) libraries provided bar-coded ID's to their users for library transactions [13].

Table 6: Information Service Providing in the University Libraries.

S. No.	Information Services	ALU	BRU	BDU	MDU	MKU	MSU	MTU	PRU	Number of Universities
1	Book lending service	√	√	√	√	√	√	√	√	8 (100%)
2	Reference service	√	√	√	√	√	√	√	√	8 (100%)
3	Periodical service	√	√	√	√	√	√	√	√	8 (100%)
4	Theses and dissertation service	√	√	√	√	√	√	√	√	8 (100%)
5	Inter library loan service	x	x	√	√	√	√	x	√	5 (62.5%)
6	Selective Dissemination Information Services	√	x	x	x	√	√	x	x	3(37.5%)
7	Current awareness Service	√	x	√	x	√	x	√	√	5 (62.5%)
8	Patent service	x	x	x	√	√	√	x	x	3 (37.5%)
9	Indexing service	√	√	x	x	√	x	√	√	5 (62.5%)
10	Abstracting service	√	√	√	√	√	√	√	x	7 (87.5%)
11	Bibliographic database service	√	√	√	√	√	√	√	√	8 (100%)
12	Literature search service	x	x	√	√	√	√	x	√	4 (50.0%)
13	Translation service	x	x	x	x	√	√	x	x	2 (25.0%)
14	Directories	x	x	√	x	√	√	x	√	4 (50.0%)
15	Standards	x	x	√	√	x	√	x	x	3 (37.5%)
16	Rare book collection service	√	√	x	√	√	√	√	√	7 (87.5%)
17	Photocopying	√	√	√	√	√	√	√	√	8 (100%)
18	Scanning and printing	x	x	√	√	√	x	√	√	5 (62.5%)
19	OPAC Search	√	√	√	√	√	√	√	√	8 (100%)
20	Online reservation / renewal	x	x	x	x	x	x	x	x	0.0%
21	Internet service	√	√	√	√	√	√	√	√	8 (100%)
	Total	13 (61.9%)	15 (71.4)	14 (47.6)	15 (52.4)	18 (85.7%)	16 (76.2)	13 (61.9)	15 (71.4)	

Table 6 shows that the various information products and services providing in the university libraries. There are 21 various information products and services identified which can be used regularly in the university libraries. The ranges of various information service providing in the university libraries from 13 (61.9%) to 18 (85.7%). The maximum 18 (85.7%) various services offered in MKU, followed by 16 (76.2%) in MSU, 15 (71.4%) in BDU, MDU and PRU and BRU provide 14 (66.7%). The least 13 (61.9%) indicate in ALU and MTU. The analysis found that the

range of various services offered in the university libraries from 13–18; it is moderately varied among the libraries [14].

Table 7 indicates that the university wise distribution of UGC info net and other society's e-journal databases services. There are 24 learned society e-journal packages identified in eight university libraries under the study. The maximum 22 (91.6%) databases subscribed in MDU followed by 20 (83.3%) in MKU and MSU, 13 (54.3%) in ALU and least quantity 7 (29.2) identified MTU. The analysis

found that the e-journal database subscriptions among the university libraries are highly variant. The range depends upon the fund,

enrolment of the users and research programme offered in the universities [15].

Table 7: Digital Resources and Service in the University Libraries.

S. No.	E-Resources	ALU	BDU	BRU	MDU	MKU	MSU	MTU	PRU	Number of Universities
1	American Chemical Society	√	√	√	√	√	√	√	√	8 (100%)
2	American Institute of Physics	√	√	√	√	√	√	√	√	8 (100%)
3	American Physical Society	√	√	√	√	√	√	√	√	8 (100%)
4	Annual Reviews	√	√	√	√	√	√	√	√	8 (100%)
5	American Society for Microbiology	x	x	x	x	x	x	x	√	1 (12.5%)
6	Cambridge University Press	√	√	√	√	√	√	√	√	8 (100%)
7	Economic and Political Weekly	√	√	√	√	√	√	√	√	8 (100%)
8	Encyclopedia Britannica	√	x	√	√	x	x	x	√	4 (50.0%)
9	Euclid	x	x	√	√	x	x	x	x	2 (25.0%)
10	Elsevier Science	x	x	x	x	√	x	x	x	1 (12.5%)
11	Emerald	x	x	x	√	√	√	x	√	4 (50.0%)
12	Institute of Physics	√	√	√	√	√	√	x	x	6 (75.0%)
13	J-STOR	x	√	√	√	√	√	x	√	6 (75.0%)
14	Nature	x	x	x	√	√	√	x	x	3 (37.5%)
15	Oxford University Press	x	√	√	√	√	√	x	x	5 (62.5%)
16	Portland Press	x	x	√	√	√	√	x	x	4 (50.0%)
17	Project Euclid	x	x	x	√	√	√	x	x	3 (37.5%)
18	Project Muse	x	√	√	√	√	√	x	x	5 (62.5%)
19	Royal Society of Chemistry	x	√	√	√	√	√	x	x	5 (62.5%)
20	SIAM	√	x	x	x	√	√	x	√	4 (50.0%)
21	Science Direct	√	√	√	√	x	√	x	√	6 (75.0%)
22	Springer	√	√	√	√	√	√	√	√	8 (100%)
23	Taylor and Francis	√	√	√	√	√	√	x	x	6 (75.0%)
24	Wiley-Blackwell	√	√	√	√	√	√	x	√	7 (87.5%)
	Total	13 (54.2%)	15 (62.5%)	18 (75.0%)	22 (91.6%)	20 (83.3%)	20 (83.3%)	7 (29.2%)	14 (58.3%)	

Table 8: Digital Resource Collection and Service vs. University Libraries.

S. No.	Digital Resources	ALU	BDU	BRU	MDU	MKU	MSU	MTU	PRU	Total
1	E-journals	✓	✓	✓	✓	✓	✓	✓	✓	7 (100%)
2	E-books	x	✓	✓	✓	✓	x	✓	✓	5 (75.0%)
3	DVD/CD-ROM Service	✓	✓	✓	✓	✓	✓	✓	✓	7 (100%)
4	Institutional repository(Parent institution collection)	x	✓	✓	x	✓	✓	✓	✓	4 (62.5%)
5	Audio visual facilities	✓	✓	✓	✓	✓	✓	✓	x	6(87.5%)
6	Micro forms	✓	x	x	✓	✓	x	✓	x	3 (50.0%)
	TOTAL	4 (66.7%)	5 (83.3%)	5 (83.3%)	5 (83.3%)	6 (100%)	4 (66.7%)	6 (83.3%)	4 (66.7%)	

Table 8 indicates that the digital resource collections and services offered in the university libraries. There are six broad categories of digital collections identified in eight arts and science university libraries. The maximum 6 (100%) categories provide in MKU and MTU, followed by 5 (83.3%) in BDU, BRU and MDU. Of them 4 (66.7%) indicate ALU, MSU and PRU. The analysis found that the digital library information services in all the universities not highly variant (Table 9).

Table 9 reveals that the university wise distribution of marketing activities by using internet and social networking sites in the libraries. The maximum 4 (80.0%) various communication channels used in BDU, followed by 3 (60.0%) in MDU, MKU MSU and PRU, 2 (40.0%) in ALU and BRU. The analysis showed that the internet and social media marketing activities of the university libraries moderately low.

Table 9: Attitude of Internet, Social Networking Sites Marketing vs. University.

S. No.	Attitude of marketing using internet, social networking sites	ALU	BDU	BRU	MDU	MKU	MSU	MTU	PRU
1	E-Mail/Group mail	✓	✓	✓	✓	✓	✓	✓	✓
2	RSS feeds for specific users	x	✓	x	✓	✓	x	x	x
3	Phone message	✓	x	x	x	x	x	✓	x
4	<u>Ask@ librarian (enquiry blog)</u>	x	✓	✓	✓	✓	✓	✓	✓
5	Social networking channels (Blogs, Face book, Twitter, Myspace, LinkedIn etc.)	x	✓	x	x	x	x	x	✓
	Total	2 (33.3)	4 (83.3)	2 (33.3)	3 (50.0)	3 (50.0)	2 (33.3)	3 (50.0)	3(66.6)

Table 10: Attitude of Web-Based Marketing.

S. No.	Attitude of web base marketing	SDA+DA	UD	A+SA	Mean	Std	Rank
1	Library website is suitable Channel to transfer electronic resources/services	2 (4.0%)	0 (.0%)	48 (96.0%)	4.44	0.705	2
2	It helps libraries to get closer to the users	2 (4.0%)	2 (4.0%)	47 (94.0%)	4.28	0.701	3
3	Web-based marketing offer to promoting distance learning	4 (8.0%)	5 (10.0%)	41 (82.0%)	3.96	0.807	10

S. No.	Attitude of web base marketing	SDA+DA	UD	A+SA	Mean	Std	Rank
4	It facilitates to build collaborative network with the users	2 (4.0%)	3 (6.0%)	44 (88.0%)	4.1	0.77	7
5	Web-based service satisfying the diverse needs of users requirement	3 (6.0%)	4 (8.0%)	43 (86.0%)	4.12	0.799	5
6	Web-based information delivering system have to save the time of the users	3 (6.0%)	0 (0.0%)	47 (94.0%)	4.12	0.773	6
7	It create positive image in the user's mind about the library	3 (6.0%)	4 (8.0%)	43 (86.0%)	4.66	0.872	1
8	It helps to improve the information literacy skill for the users	3 (6.0%)	7 (14.0%)	40 (80.0%)	4.04	0.832	8
9	Web-based marketing is inexpensive compared to other methods	6 (12.0%)	3 (6.0%)	41(82.0%)	4.00	0.926	9
10	Libraries can able to display their new products and services in the web pages	3 (6.0%)	3 (6.0%)	44 (88.0%)	4.24	0.822	4

Table 10 reveals that library professional staff attitude towards the web-based marketing of information products and services. All the library professionals showed positive attitude that the data related to web-based marketing activities. Majority of the library professionals agreed that library web portal is integral to

marketing of digital information products and services among the online users. It is economic, to get closer to the users, able to collaborative network, quick access, time saving and create positive image among the users.

Table 11: Marketing Attitude towards Internet and Social Networking Sites.

S. No.	Marketing attitude towards Internet and social Networking sites	SDA+DA	UD	A+SA	Mean	Std	Rank
1	Web OPAC help find and locate the information materials	2 (4.1%)	4 (8.2%)	43 (87.7%)	4.28	.809	4
2	Ask@librarian tag offer direct link with librarian and individual users	2 (4.1%)	5 (10.2%)	42 (85.7%)	4.32	.844	5
3	YouTube used sharing videos of library events and conferences	7(14.3%)	3 (6.1%)	39 (79.6%)	4.02	1.010	8
4	Face book can be used to send library news and events to vast numbers of users	2 (4.1%)	3 (6.1%)	44 (89.8%)	4.49	.794	2
5	E-mail helps to share message and file documents to individual or group of users	2 (4.1%)	2 (4.1%)	45 (91.8%)	4.22	.790	1
6	Library blogs used to post ideas and thoughts users	2 (4.1%)	3 (6.1%)	44 (89.8%)	4.32	.794	3
7	Wikis used for collaboration and sharing of work	2 (4.1%)	7 (14.3%)	40 (81.6%)	4.18	.834	7
8	Twitter used for sending instant messages	5(10.2%)	6 (12.2%)	38 (77.6%)	4.02	.958	9
9	LinkedIn facilitate to form professional network among users	7(14.3%)	5 (10.2%)	37 (75.5%)	3.98	1.040	10
10	SMS useful for sending reminders for large specific users	2 (4.1%)	4 (8.2%)	43 (87.7%)	4.24	.847	6

SA, Strongly Agree; A, Agree; UD, Undecided; DA, Disagree; SDA, Strongly Disagree

Table 11 reveals that library professional staff attitude towards information products and services by using internet and social networking sites. The data presented in the

table shows that the statement 1–10 are positive. The responses range of the library professionals for the statements from 75.5 to 91.8%. More than 85% of the respondents

either agree or strongly agree that internet and social networking medias facilitate to send or share message and file documents through e-mail, Face book can be used to send library news and events, Web OPAC help find and locate the information materials, Ask@librarian tag offer direct link with

librarian and individual users, blogs used to post ideas and thoughts to the users. Of them more than 75% of the respondents think that the social medial useful for sending SMS, to form professional network, sending instant messages and sharing videos of library events.

Table 12: Problem Faced in the Web-Based Information Service.

S. No.	Problems	SDA+ DA	U	A+SA	Mean	Std	Rank
1	Lack of computers and technically skilled manpower for proper maintenance	5 (10.0%)	1(2.0%)	42 (84.0%)	4.02	1.041	3
2	It is too difficult to followed all the social media sites existing in the internet world	16 (32.0%)	2 (4.0%)	32 (64.0%)	3.48	1.165	6
3	Lack of knowledge for all library professionals to design the library web portals by using the open source software	6 (12.0%)	4(8.0%)	40 (80.0%)	4.20	1.030	1
4	Lack of training opportunity to learnt all the updated technological advancements in the library field	5 (10.0%)	5 (10.0%)	40 (80.0%)	4.02	.979	4
5	Frequent failure of electricity and Slow speed of Internet access	10 (20.0%)	5 (10.0%)	35 (75.0%)	3.78	1.130	5

Table 12 shows that the problems that hinder in library web sites used in libraries were inquired from the respondents. They agreed that the insufficient of computers, slow speed of internet connectivity, and lack of training to use the open source software, Unavailability of training opportunity and frequent failure of electricity are the major problems faced by the users in accessing information services through library websites.

Findings of the study

At present, all the university libraries more concentrated in digital resource collection development than the print version. Each university libraries have good infrastructure and technological facilities like internet, LAN and individual web portals (Library websites) for providing library information services to the users. All (100%) the university libraries automated using branded commercial application software. 75% of the university libraries developed institutional repository collections by using DSpace open software. All the university introduced bar-coded system for their housekeeping activities and ID cards, but none the library implement the modern RF system in their libraries.

This study found that the university library professionals showed positive attitude towards marketing of information products and services of the library. Kaur and Rani, and Kavulya found similar results in their surveys. More than 90% of the library professionals think that library marketing is essential to expose existing library products and service and improve the information literacy skill to the users. Marketing programme gives close relationship between the users and library staff, it helps to obtained suggestions from the users for a particular product or services providing in the library.

Each university has established separate digital library for providing UGC info net and other society e-journal services. The analysis revealed that 87.5% of the university libraries offered more than thirteen different learned society e-journal packages in various subject fields. University libraries have direct links with subscribed society e-journal databases.

Majority of the library web sites provide direct links to various open source directories or associations, which allow the users to search their required information from library web site itself. Internet and web-based library marketing or services help to create awareness

about various digital resources. Library web sites and social networking sites are platform for librarians to share ideas, send message, and send information documents and videos to the users. More than 90% of the library professionals accept that the manpower and financial support is major problems to execute the marketing programme in the university libraries. Mohan and Kanaujia revealed similar results in their surveys. 90% of the library professionals accept that the modern technological facility made more convenient to the users and increase utility of the library products and services, majority of the libraries adopting the modern techniques and different communication channels for information distribution.

CONCLUSION

University library professionals recognized that the web-based promotional efforts are essentials to improve the digital products and services. Most of the university libraries equally admitted traditional as well as web base marketing activities. Majority of the university libraries used selected social networking sites for marketing of information products and services.

Nowadays web-based information services becomes common for all places in the world. The changes in communication technology, the libraries can provide active library websites for marketing of information products and services to the users.

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