

Use of Electronic Resources and Services by Faculty Members and Students of Fiji National University

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ABSTRACT

The effectiveness of electronic resources and services in select campuses of Fiji National University Library on the basis of users' satisfaction is evaluated. A survey method was employed to conduct this research. Out of sixteen campus libraries of FNU, the researcher selects eight libraries from different division of Fiji in the user's survey. 150 well-structured questionnaires were distributed to gather information related to uses of electronic resources and services. The 140 filled questionnaires were collected from students and faculty members and analysed, classified and tabulated by employing simple statistical methods. The study reveals that majority of the users of FNU libraries keep themselves abreast of developments in electronic resources, services and their proper utilisation in the field of academic and research. The result showed a growing interest in e-resources among the users and also found that slow downloading and blockage of website is the hurdle in proper utilisation of electronic resources. The survey further reveals that the majority of respondents are aware of the usage of e-resources and services.

Keywords: E-resources, user-studies, library services, universities

1. INTRODUCTION

Electronic resources and services, offered by libraries, have dramatically changed scientist's and academician usage patterns in Fiji during recent years. Technologies have played vital role in education in terms of communication played both academic knowledge and local wisdom to academic society. In the current scenario, the e-resources and services are considered an important part of information sources to provide efficient services to the information seekers. Maidabino¹ attempt to determine that academic library plays an essential role in the transmission of information and knowledge in higher education. They are anticipated to acquire, preserve, store, manipulate and disseminate information resources that would fulfill the needs of both contemporary and academic society and future users too. According to Majid & Abazova² "The library plays an important role for the academic development and provide instructional services such as information literacy, orientation and training for use of library resources." If efficient and effective use is to be made of library's e-resources, then user orientation will have to be increased in both intensity and coverage. It is important to remember that the ability of library professionals to keep up to date is necessary, and, therefore, training for them is crucial as well. According to Skaggs; Poe & Stevens³ "Electronic resource is a simple and common term that can encompass anything from a PDF of a government report to an aggregated database". Makri⁴, *et al.* opined 'Any interactive website,

system or tool with an aim of support there users in accessing, interpreting, disseminating and/or using electronic information can be considered as an electronic information resource' According to Dadzie⁵ in the current era, library services, e-resources are considered as an essential component of information sources to provide efficient services to the information seekers. Electronic information sources are significant research tools that complement the print information sources in traditional library services.

E-resources are becoming very important these days as they are more up-to-date, and can be accessed anywhere, across the world. Such resources add value while conducting R&D activities. Thus this topic was selected to study the various e-resources and analyse the utility and effectiveness in provision of the information services provided by campus libraries.

1.1. Historical Study of Fiji National University

Fiji, is a country situated in South Pacific region, is an archipelago of more than 300 islands. Fiji is one of the most developed economies in the Pacific region due to an abundance of mineral, forest, and fish resources. Fiji's literacy rate is about 93.7%. Fijian Education is a combination of multi-racialism and multiculturalism allows for the guidance and administration. The Fiji Higher Education Commission in Fiji is taking major steps to promote and subsidise the educational fees and other costs related to it and hence bringing it under the affordability

of every citizen. Technical education is mostly under the University of the South Pacific, Fiji National University and University of Fiji. Now, the Fiji National University has 16 campuses and 33 centers located in the country. The Fiji National University is an establishment to serve the needs of Post-secondary education in Fiji and all the associated libraries provide a welcoming, comfortable, and safe environment that supports teaching, learning and research. The Fiji National University libraries consists of a main Library located in Nasinu Campus and other libraries in fifteen places across the country. As an integral part of the academic programmes of the university and support service for the entire university, the libraries provide and maintain a fluid collection of monographs, state of the art communications for information resources; manuscripts, electronic documents and periodicals acquired by the library. The library provides access to on-site and remote access electronic full-text resources. Further, the FNU Libraries pursue goals of excellence in different activities through services, collections, and inter-library cooperation which ensures access to information and knowledge. It strives to provide excellent assistance in finding and evaluating resources to students, staff and alumina on-site in different campuses and centers at a distance.

2. LITERATURE REVIEW

E-resources and services are the backbone of the modern library, and user's satisfaction is one of the methods to evaluate the efficiency and effectiveness of library services. Therefore, it is essential and beneficiary to assess the library resources and services extracted and user satisfaction because successfulness of any library depends upon how well a service fulfills the demands placed upon by the library users. Hence, standard services are ultimate goals of libraries as service organisations. A number of studies on the use of e-resources and services have been carried out by students, teachers and scientists of various institutions all over the world.

Erens⁶ opined 'How recent developments in university libraries affect research' and explore that, current academics were making good use of e-resources and services in university library. University library services had expressively improved during the last decade and most of the academic staffs were satisfied with e-resources and services. Khan & Bhatt⁷ conducted a study and explored the attitudes of students of the Islamic University of Bahawalpur, Pakistan towards learning through the internet. The results of research showed that the respondents were not satisfied with the internet service provided by university, slow connectivity of internet and inadequate number of computers in computer lab. Nwalo⁸ aim to investigate the effectiveness and efficiency of a good library is usually measured by how well the library fulfills the users' needs and requirements relative to the library's goals and objectives. According to Ababio⁹, *et al.*, libraries must to be assessed and evaluated while a

period time by their users. A number of studies, Eager & Oppenheim¹⁰ stated that a user-based assessment can provide precious information to libraries in re-orienting their collections, services and activities for effectively meeting their information needs. Nadiri & Mayboudi¹¹ depict that the higher education institutions are keenly involved in knowing the perceptions of academic community and quality of services to attract students, fulfill their needs and retaining them. They stated that the key to sustain in today's intensive competition lies in delivering quality service that will, in turn, result in customer satisfactions. Kassim,¹² studied however, try to understand the causes of user dissatisfaction to improve service performance delivered by the academic libraries and satisfying user needs has been the primary objective of academic libraries. Every year the new students come to the institution with different needs and expectations. White & Abels¹³ and Herson & Altman¹⁴ over two decades years ago, noted that university libraries are facing the challenges on several directions, such as electronic information providers, rise of book stores, document delivery services, remote learning, multimedia products, and other competitive sources of information that seem to be threatening their role. These new tools and technique have brought substantial changes in the way academic libraries operate today, and also in terms of user needs and expectations. Hence, there is a need for university libraries to continually monitor the user needs and service qualities so as to improve and strengthen their services. Tyagi¹⁵ reported that almost all Indian Pharmacopoeia Commission Scientists and Associates were seen to use new versions of e-journals (100%), online database (100%), CD-ROM database (100%), subject specific information websites (89%) & e-books (79%) and other internet based resources. The author also revealed that some Scientists (30.77%) and Associates (37.50%) prefer print version of journals. Majority of them prefer to take along printouts instead of downloading on storage devices. Sohail and Alvi,¹⁶ concluded a study of JN Medical College at AMU Aligarh and found that 100% of the students were aware and used for retrieving quick information of e-resources as reliable resources generally in cyber cafe as well as with personal connection and satisfied with the web services provided by the college.

3. SCOPE AND LIMITATIONS OF THE STUDY

Scholarly resources continue to be converted from print to electronic format. Nearly all of FNU library's electronic database subscriptions are now available online. The library currently comprises of more than 64,340 e-journal titles. Despite the financial and technical limitations of converting the print to e-book, the library now provides access to almost 180,767 e-books. In general, use of the library's major packages of e-resources has increased in the last three years. The study geographical area is restricted to students and faculty members of the selected campuses of Fiji National University, Fiji only. E-resources and services in university libraries are

making a significant role of library activities. A huge amount is invested in the development of e-resources in the libraries. But without conducting a study, there is no way of knowing whether the users accept them or not, do they find the e-resources and services easy to use, reliable, and useful or are e-resources effectively in use. The study offers to identify the acceptance of e-resources and services in the library under study along with its advantages, performances, user's satisfaction and barriers faced during the use of e-resources and services. The study is designed to seek user's opinion concerning the use of e-resources and services in different campuses of FNU libraries.

4. OBJECTIVES

The objective of the present study entitled 'Use of e-resources and Services by Faculty Members and Students in Fiji National University' is to find out the level of uses of e-resources and services. Internet service, OPAC, virtual/electronic reference service, CAS, SDI, e-mail, CD-ROM databases, online databases and others digital facilities were considered as electronic services. The objectives of the study are as follows:

- (a) Explore the awareness, use and perceived importance of the e-resources among the faculty members and students
- (b) Study the purposes for which e-resources are used by the faculty members and students
- (c) Find out the frequency of usage of the e-resources
- (d) Determine the level of satisfaction among the users of electronic services.
- (e) Know the benefits of e-resources over the conventional documents
- (f) Identify the problems faced by the students and faculty members while accessing and using e-resources and services.

5. METHODOLOGY

The FNU Library is ISO 9001:2008 certified and is the only library in the South Pacific holding ISO certification which therefore plays a vital role in carrying out the survey. The University has a total of 16 libraries located in FNU Campuses and Centers throughout Fiji. The survey was carried out in September 2016 with a vision to obtain valuable feedback from the library users and to provide high quality and responsive one-stop service. The paper describes these surveys, including the end results and the improvements to be adopted. Responses gathered from user surveys provide literally important information for improving the library services. The population of the study consists of the library users associated in selected campus library of the Fiji National University. The primary data were gathered using self-administered with open-ended questionnaires were personally distributed to the students and faculty members in the different campus libraries

of FNU. Respondents were randomly selected sitting at the campus library from different departments. The total population of library users was very large and it was not practical to survey the entire population and to conduct in-depth research. Therefore reasonable, manageable and convenient samples are randomly selected from the top eight largest libraries where the students' enrollment was high. Out of the 150 distributed questionnaires, 140 were completed and returned an overall response rate is 93%. Out of 140 complete questioners, 90(78.84%) respondents were students and 50(17.30%) respondents were faculty members.

6. DATA ANALYSIS

6.1. Library Users Participated in the Survey

The frequency distribution of status of the respondents is presented in Table 1 shows that the majority of respondent (25 out of 140, 57.25%) were Nasinu, followed by Samabula, 23(19%), Labasa 22(15.71%), followed by Lautoka 19(13.5%), followed by Nambua 10(7.14%), followed by Pacifica 13(9.2%), Followed by Koronivia 16(11.4%) while the least respondent from Maritime were 12(8.5%).

Table 1. Number of library users participated in the survey

S. No.	Name of the campuses	Faculty (%)	Student (%)	Total (%)
1.	Nasinu	08 (16)	17 (18.80)	25 (17.80)
2.	Lautoka	07 (14)	12 (13.30)	19 (13.50)
3.	Samabula	08 (16)	15 (15.66)	23 (16.4)
4.	Pacifica	04 (07)	09 (10)	13 (9.20)
5.	Maritime	05 (10)	07 (7.70)	12 (8.50)
6.	Koronivia	06 (12)	10 (11.11)	16 (11.40)
7.	Nambua	04 (8)	06 (6.60)	10 (7.14)
8.	Labasa	08 (16)	14 (15.50)	22 (15.71)
	Total	50	90	140

6.2. Frequency of Use of E-resources

This is the most important and basic aspect related to the assessment and usefulness of e-resources. Here an attempt has been made to find out the frequency use of e-resources. It can be found from Table 2, that 11(22%) faculty members visited daily, while 9(18%) visited two to three times a week and 7(14%) faculty members use these resources weekly, 13(26%) of the faculty members visited the library monthly, and 10(20%) visited occasionally. On the other hand 29(32.22%) students, were visiting the library daily while 12(13.33%) visited 2-3 times in a week, and 20(22.22%) students visited weekly. 13(14.44%) of the students are found to be visiting monthly, while 16(17.77%) of the respondents reported that they visited occasionally. Thus, the data show that, highest 40(28.57%) library users visited the library at daily and out of all the lowest 21(15%) users of library visited two to three times a week.

Table 2. Frequency of use of e-resources

S. No.	Frequency	Faculty (%)	Students (%)	Total (%)
1.	Daily	11 (22)	29 (32.22)	40 (28.57)
2.	Two to three times a week	09 (18)	12 (13.33)	21 (15)
3.	Weekly	07 (14)	20 (22.22)	27 (19.28)
4.	Monthly	13 (26)	13 (14.44)	26 (18.57)
5.	Occasionally	10 (20)	16 (17.77)	26 (18.57)
	Total	50	90	140

*Percentages do not always equal 100 due to rounding. n=140

6.3. Descriptive Statistics of Users' Awareness of E-resources

Table 3 reveals the awareness of e-resources among the faculty members and students. The analysis shows that 47(94%) faculty members were aware of the e-library, while all faculty members were aware of the Moodle, online research tool, e-database and OPAC followed by 48(96%) faculty member were found that they aware about e-book and 42(84%) faculty members were aware of e-dictionary 38(76%) faculty members were aware of E-quick Reference. On other hand, the Table 3 reveals the awareness of e-library 82(91.1%) Students were aware of e-books. 90(100%) overall students were aware of Moodle and OPAC. 86(95.5%) students were made aware of Online Research Tool and 70(77.7%) students were aware of E-book, while 74(82.2%) students were aware about E-database, 68(75.5%) were aware by E-quick Reference. The analysis shows that all respondents were aware of the online public access catalogue shortly most awareness of this, while 106 (75.7%) is lowest awareness about E-Quick Reference.

6.4. Electronic Services in Library: User Satisfaction Statistics

The statistical procedure was employed to examine satisfaction about electronic services in library. The result indicates that there is significant difference among the opinion of the library users in this sample regarding

Table 3. Descriptive statistics of users' awareness of e-resources

S. No.	Electronic resources	Faculty (%)	Students (%)	Total (%)
1.	E- library	47 (94)	82 (91.1)	129 (92.14)
2.	Moodle	50 (100)	90 (100)	140 (100)
3.	Online research Tool	50 (100)	86 (95.5)	136 (97.14)
4.	E-book	48 (96)	70 (77.7)	118 (84.2)
5.	E-database	50 (100)	74 (82.2)	124 (88.5)
6.	E-dictionary	42 (84)	84 (93.3)	126 (90)
7.	E-quick reference	38 (76)	68 (75.5)	106 (75.7)
8.	Online public access catalogue	50 (100)	90 (100)	140 (100)

*Percentages do not always equal 100 due to rounding. n=140

satisfaction about electronic services being provided in their campus libraries. The descriptive statistics presented in Table 4 show that respondents were very satisfied with Training Programme on information literacy, and Electronic/virtual reference service (Mean=3.55, and 3.52). Respondents were satisfied with internet enabled workstations, current awareness service and selective dissemination of information service (Mean=3.43, 3.20, and 3.08). There were no negative answers from respondent.

Table 4. Statistics of user satisfaction about electronic services in library

S. No.	Electronic services	N	Mean	SD
1.	Training programme on information literacy	132	3.55	1.09
2.	Internet enabled workstations	117	3.43	1.00
3.	Electronic/virtual reference service	128	3.52	1.23
4.	Current awareness service (CAS)	109	3.20	1.20
5.	Selective dissemination of information (SDI)	96	3.08	1.28

Likert Scale: 1 = Dissatisfied, 2 = Slightly satisfied, 3 = Satisfied, 4 = Very satisfied, 5 = Extremely satisfied
(Responded were allowed multiple answer)

6.5. Purpose of Using E-resources

Table 5 indicate that the purpose of using e-resources shows that 92% faculty members and 82.22% students use e-resources for research purpose. Where as 494% faculty members and 92.22% students stated that they used e-resources for finding significant information in the area of specialisation, 52% faculty members and 97.77% students used it for keeping up-to-date in subject information. 60% faculty members and 86.66% students use it for getting current information, while 66% faculty members used e-resources for teaching purpose and 91.11% students were using them in order to prepare their assignments. It is interesting to observe that 92.85% respondents use the library's e-resources for finding significant information in the area of specialisation.

6.6. Search Options Used

Table 6 describes that 92% faculty members and 81.11% students were using Boolean logic for searching e-resources, whereas 96% faculty members and 97.77% students were using weighted term searching, 86% faculty members and 91.11% students were using subject term (Truncated) searches and 88% faculty members, 93.33% students preferred using full-text search. The conclusion from the analysis may be drawn that majority of respondents are aware of the search options for accessing e-resources. The highest preferred 136(97.14%) respondents are using weighted term search technique.

6.7. Benefits of E-resources Over Conventional Documents

The advancement in digital and electronic technologies and the recent proliferation of electronic publishing across

Table 5. Purpose of using e-resources

S. No.	Purpose	Faculty (%)	Student (%)	Total (F%)
1.	Research purpose (thesis/dissertation/project work)	46 (92)	74 (82.22)	120 (85.71)
2.	Finding significant information in the area of specialisation	47 (94)	83 (92.22)	130 (92.85)
3.	Keeping up-to-date subject information	26 (52)	88 (97.77)	114 (81.42)
4.	Getting current information	30 (60)	78 (86.66)	108 (77.14)
5.	Teaching purpose	33 (66)	--	33 (23.57)
6.	Preparing assignment	--	82 (91.11)	82 (58.57)
7.	Study purpose	44 (88)	90 (82.22)	134 (95.71)
8.	Publishing articles/books	43 (86)	18 (20)	61 (43.57)

*Percentages do not always equal 100 due to rounding. n=140

Table 6. Search options used

S. No.	Search technique	Faculty (%)	Students (%)	Total (%)
1.	Boolean operators (AND/OR/NOT)	46 (92)	73 (81.11)	119 (85)
2.	Weighted term search	48 (96)	88 (97.77)	136 (97.14)
3.	Subject term (truncated) search	43 (86)	82 (91.11)	125 (89.28)
4.	Full text search	44 (88)	84 (93.33)	128 (91.42)

*Percentages do not always equal 100 due to rounding. n=140

the globe have brought in a revolution in electronic publication, access, subscription, and delivery mechanism. Presently e-resources have become the largest and fastest growing areas of digital collections for most of our libraries and it has many benefits. Some of the important benefits of e-resources extracted from the views of the respondents are as shown in Table 7.

It is inferred that 43(86%) of the faculty members and 86(95.55%) students feel, e-resources are time saving, 38(76%) faculty members and 81(90%) students said that e-resources are easy to use, 44(88%) of the faculty members and 72(80%) students admitted that these are more informative, 40(80%) faculty members and 70(77.77%) students stated that these are more useful, and 38(76%) faculty members and 76(84.44%) students advocate that the e-resources are more preferred compare to printed resources. It is inferred that highest 129(92.14%) respondents feel that in comparison to conventional documents, e-resources are time saving.

Table 7. Benefits of electronic resources over conventional documents

S. No.	Benefits of e-resources over conventional documents	Faculty (%)	Students (%)	Total (%)
1.	Time saving	43 (86)	86 (95.55)	129 (92.14)
2.	Easy to use	38 (76)	81 (90)	119 (85)
3.	More informative	44 (88)	72 (80)	116 (82.85)
4.	More useful	40 (80)	70 (77.77)	110 (78.57)
5.	More preferred	38 (76)	76 (84.44)	114 (81.42)

*Percentages do not always equal 100 due to rounding. n=140

6.8. Problems Faced while Using E-resources and Services

The respondents were asked to furnish details regarding any problems faced while using e-resources & services and their answers are provided in Table 8. 19(38%) faculty members and 29(32.22%) students stated that IT Infrastructure is not good. 14(28%) faculty members and 17(18.88%) students responded that e-resources are not adequate for their needs. 46(92%) faculty members and 82(91.11%) students stated that some of informative websites are blocks in library. 5(10%) faculty members and 4(4.44%) students complained that slow downloading is a problem faced while accessing the internet. Complaints of inconvenient library timing accounted and co-operation of library staff are 2(4%) faculty members and 6(6.66%) of student of library responses, respectively. The gamut of problems confronted by the respondents is based upon serious infrastructural bottlenecks creating stumbling blocks for wide use of e-resources.

6.9. Overall Satisfaction Level of E-resources and Services

The respondents were asked a questions regarding their overall satisfaction level regarding e-resources and services. 2(4%) faculty members and 5(5.55%) students were 'Dissatisfied' and 5(10%) faculty members and 7(7.77%) students were 'Slightly satisfied' with the electronic resource and services. While 28(56%) faculty members and 21(23.33%) students were 'Satisfied' 31 (62%) faculty members and 22(24.44%) students were 'Very satisfied' and 14(28%) faculty members and 5(5.55%) students were 'dissatisfied' with e-resources and services. The highest 53(37.85%) respondent are very satisfied and only 7(5%) respondents are dissatisfied with library electronic resource and services.

Table 8. Problems faced while using electronic resources and services

S. No.	Problems faced	Faculty (%)	Students (%)	Total (%)
1.	IT infrastructure is not good	19 (38)	29 (32.22)	48 (34.28)
2.	Electronic resources are not adequate for needs	14 (28)	17 (18.88)	31 (22.14)
3.	Blockade of websites	46 (92)	82 (91.11)	128 (91.42)
4.	Slow downloading	5 (10)	4 (4.44)	9 (6.42)
5.	Library timings not suitable	2 (4)	6 (6.66)	8 (5.71)
	Library staff is not co-operative	2 (4)	6 (6.66)	8 (5.71)

*Percentages do not always equal 100 due to rounding. n=140

Table 9. Overall satisfaction level of electronic resource and services

S. No.	Satisfaction level	Students (%)	Total (%)
1.	Dissatisfied	5 (5.55)	7 (5)
2.	Slightly satisfied	7 (7.77)	12 (8.57)
3.	Satisfied	21 (23.33)	49 (35)
4.	Very satisfied	22 (24.44)	53 (37.85)
5.	Extremely satisfied	5 (5.55)	19 (13.57)

*Percentages do not always equal 100 due to rounding

7. DISCUSSION

The study has shown that e-resources and services provided by FNU libraries perform an increasingly important role in research at Fiji National University. Not only current e-resources are required, but faculty members and students need to be provided with the use of significant electronic back runs as well. With the changing paradigm of educational horizon, an electronic resource has gained global currency. Better and more effective management of information would be more feasible through the availability of the latest equipment and modern infrastructure and services in library. The benefits of e-resources can only be reaped when a supporting and enabling environment is created for users.

8. CONCLUSIONS

E-resources and services seem to be considered very important in the present era. The e-resources and services of libraries are playing very significant role for the functioning of any academic organisation as well as nation buildings. These e-resources and services need to be harnessed and utilised properly. The survival of an academic organisation largely depends upon the utility of its e-resources and services in relation to the community it serves. Services of libraries based on management principles need to be renewed frequently

keeping in view the changing requirements of the users. The ample amount of modern resources, innovative library services, need for adequate information literacy and aptness in using the existing sources has become the need of the hour.

Findings of this study confirm that, most of the objectives have been accomplished in this study of a relatively small sample and knowledge of its researchers and several major conclusions can be drawn. This study also reveals its impact in terms of awareness and effective use of the available resources with a few constraints by the library users. It is found from the analysis that faculty members and students responding to the survey of campus libraries reveals a good deal of interest in frequent use of e-resources and services. The survey analysis also depict that a majority of the respondents are aware of the search options for accessing e-resources. The study has identified the problems faced by the users in the use of e-resources and services, including, inadequate IT infrastructure, and blockade of websites. In addition, library users indicated a lack of skills required in using these services, and noted a discouraging attitude of library staff in helping them with the use of e-resources and services. Further research with a broader scope, or using cluster and/or stratified sampling, would provide additional information about this important topic.

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