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STUDENTS' PERCEPTION OF DIGITAL LIBRARY SERVICES: A CASE STUDY OF INTERNATIONAL ISLAMIC UNIVERSITY, MALAYSIA.

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Abstract

The major purpose of this research was to examine the perception of students towards digital library services in the International Islamic University, Malaysia (IIUM). Survey method was used for the study. A sample size of 164 post-graduate students from the faculty of engineering was selected through random sample. Questionnaire was used to collect data. The analysis of the data revealed high level of awareness and utilization of DC among respondents. The respondents also showed positive attitude towards the IIUM DC. Suggestions aimed at to improving the IIUM digital library services were also provided.

Keywords: Digital library services, Students Perceptions

Introduction

Traditional libraries in the print based environment were guided by the objective of linking users who needed information to the sources that had the information. Most of their work was done without the use of information technology and was time consuming depending on the nature of the search. Nowadays the scenario has changed with greater use and application of information and communication technology (ICT) especially in libraries. As more and more information sources become available online, many university libraries are introducing digital service. The aim of these services is to broaden the range of information resources available and to add value to their content by making them accessible through digital means so that students, researchers, and the entire members of the university community can access them anytime and anywhere. Chowdhury and Margariti (2004) further pointed out that the introduction and development of the Internet and its associated Web technologies in the past decade have significantly influenced both the way libraries provide information services to their users and the way users choose to access information. Academic libraries are now trying to meet the needs of the academic and research community by improving their services and enhancing their resources. One of the means is the provision of digital library collection. A successful strategy to enhance exploitation of resources is to ensure users' awareness about the existence of a particular service such as the current technologies in libraries which are meant to promote service efficiency and effectiveness.

The Evolution of Digital library system

Computer-based automation was initially incorporated into library operations as a mechanism for handling the routine functions of running a library such as circulation, cataloging, acquisitions, interlibrary loan and serials control (Fecko, 1997). Since the 1990s, technology has continued to develop, often faster than library professionals can convincingly cope with. Additionally, the availability of the Internet has brought about dramatic changes in libraries, especially institutional libraries, in terms of how they collect, organize and disseminate information. Perceptions of digital libraries vary and evolve over time, and many definitions for digital libraries have been proposed. The concept of a digital library means different things to different people. Even the key players in the development and use of digital libraries have different understanding of digital libraries. To librarians, a digital library is another form of a physical library; to computer scientists, a digital library is a distributed text-based information system or a networked multimedia information system; to end users, digital libraries are similar to the World Wide Web (www) with improvements in performance, organization, functionality, and usability (Fox, Akscyn, Furuta, & Leggett, 1995). Borgman (1999) added that two competing visions of digital libraries stimulate more discussions on the definition of a digital library by researchers and practitioners. The common elements of a digital library definition identified by the Association of Research Libraries (1995) are more acceptable to researchers of digital libraries, thus:

- The digital library is not a single entity.
- The digital library needs technology to connect the resources of many networks.
- The linkages amongst the many digital libraries and information services are clear to the end users.
- The goal is to provide universal access to digital libraries and information services
- Digital library collections are not restricted to document surrogates: they include digital artifacts that can-not be embodied or disseminated in printed format.

The technology that is continuously changing in today's digital age has made academic libraries to update and improve their present services and systems to ensure that their products or services meet the students demand for information. Xia (2003) reported that the introduction of modern information technology and information resources in a dynamic digital format has made libraries to introduce changes in the way they provide access. Information is circulated much more

quickly over the Internet and patrons are able to access the latest versions of information resources almost as soon as they become available (Fecko, 1997). One of the results of the application of information technology in libraries is the coming of the digital library especially in academic environment. Today many university libraries offer electronic information resources to their users in order to satisfy their information needs. However for this effort to be successful the users need to be aware and have access to such collection and services as well.

Evolution of Digital Library in Malaysia

The launching of the World Digital library in April in 2009 is the beginning of the confirmation to the world the digital library has come to stay. Despite the limited writings on Malaysian digital library initiatives, still local libraries efforts towards automation have begun all the way back in 1978 with the MALMARC project before the culminating in the Malaysian national digital library initiative in1999 through the PERDANA project Norasi (2010). In the making of such attempts to realizing the importance of the digital library development, studies and investigation in order to understands the readiness of the traditionally based Malaysian libraries to transfer from traditional based to digital contents, through the extent of library automation and digital library initiatives, putting into consideration both the general and the digital library problems and the perceived condition of the future growth. Among some components that were considered at that period were demography, library holdings, automation, digitization projects, as well as the digital library use among uses. And the result of the Noasia revealed that there was gap between Malaysia library initiatives, most of which were done independently. However, Many Malaysian libraries had carried out some digitization initiatives, especially at various institutions and at national levels, but still needed more coordinated efforts to take it to greater length.

Harun. (2006) investigated the use, perceived usefulness and satisfaction with electronic resources among the Kulliyyah of Islamic Revealed Knowledge (KIRK) and Kulliyyah of Information and Communication Technology (KICT) postgraduate students. The author used written close-ended and open-ended questionnaire as an instrument in collecting data and other information required. The results of the research shows that OPAC was the most regularly used

one among E- resources provided by the IIUM library. And the research also discovered that the respondents perceived ER as useful.

Saoudi (2001) reported "The use of internet by IRKHS faculty members". The main focus of this study was to examine the Internet use by the IRKHS faculty members. The study concentrated on the analysis of the level of Internet services use by the academic staff for educational and learning purposes. A special attention was given to the examination of the main factors which influenced the rate of internet use as well as the problems associated with the use of internet facilities. The study also looked at the possibilities of promoting Internet use by staff members.

However, none of the above approaches has investigated students' perceptions on the digital library services as well as the usage level among the engineering student. The current objective was to investigate these and related issues.

The Role of Digital library in learning and research

The digital revolution has brought dramatic changes to information storage, access, and retrieving processes. The creation of digital libraries has made an essential impact on the teaching and learning process. Digital libraries facilitate information services for students, independent of time and place. This is much needed, especially if active learning styles become a common place (Barnard, 1997; Beagle, 2000; Roes, 2001). The major benefits of digital libraries include storing resources in digital format, which allows online access to students at numerous locations at anytime and anywhere, it can be at home, in the library, in the class, laboratories, to mention among many. Moreover, digital libraries provide various search techniques to access the digitized resources (Wiederhold, 1995). A digital library is a collection of information objects and services that support students in dealing with information objects available directly or indirectly through electronic or digital format (Seadle and Greifeneda 2007). Digital libraries containing representations of original works provide opportunities for students and scholars to conduct research from their personal computers and workstations set in their homes, offices and laboratories. It also facilitates remote research from private and public locations and offers learners' opportunities that are unconstrained either by the limited resources found in particular physical libraries or by their schedules of operation.

Importance of Digital Resources to Students Learning and Research

Digital libraries are increasingly becoming a part of academic learning community; Roes (2001) stated that digital libraries are accepted complements to the electronic learning settings. This is because digital librares has recorded a significant number of importances such as bringing information to user, providing enhanced searching, collaboration, sharing, and have drastically reduced the issue of digital divide. DLs have changed the way humans interact with information, for, as long as there is an internet connection available and the user has an appropriate access device, the requested information can be accessed from anywhere at any time. Moreover, in so doing, DLs have introduced learning, and especially distance learning, to new dimensions (Blandford, 2006). Another advantage of DLs is that, as opposed to traditional libraries, which have a limited storage space, they have the advantages of saving physical space by holding all information digitally on a server. Indeed, DLs can always be extending their storage space, as long as relatively inexpensive computer memory is available. What is also interesting is that there need not be a one-to-one mapping between a DL and a traditional library, as the information contained in a DL could be distributed geographically in separate sites (Slonim and BaronLaurie, 1994).

Similarly, Bakeri (2012) pointed out that with the introduction of the World Wide Web and graphical browsers in the 1990s the internet has become widely accessible and many users have grabbed the idea of using it for their multifarious purposes and agenda. Students are now having chances of surfing the internet for their studies and research needs. Many types of web sites have been established to foster multiple missions and visions. Libraries felt that the internet can enhance their scale of communication through the web sites as the internet is capable of delivering large quantities of information in a speedy manner to the public. Universities in the world today have taken advantage of this phenomenon by having their own web sites. It is foreseen that universities' web sites partake in the success or failure of universities; this is because these web sites are now used as means of marketing their programs to the users at large. Therefore the Perceptions of students as to the quality of digital library collections and service accessible could be judged from universities' library web sites.

Development of Digital library in IIUM Library

The International Islamic University (IIUM) library system consists of five libraries at each of the University's five campuses: The Main Library is situated at the Gombak campus, two Medical libraries in the Kuantan campus (Indera Mahkota and Jalan Hospital branches), the ISTAC Library at Damansara, the IIBF Library at Jalan Duta and the Centre for Foundation Studies (CENFOS) Library at Petaling Jaya and Nilai.

Similarly, the library has a total collection of over 550,000 volumes of monographs, 1,600 serial titles on subscription, 24,000 volumes of bound serials, 60,000 units of audio-visual media, and 29,000 microforms. The library also subscribes to a number of online databases and electronic journals and e-books. The library uses using the Library of Congress List of Subject Headings and the Library of Congress Classification Scheme to organize its collections. The composition of the IIUM digital collection mainly consists of the following :- IIUM Theses, Examination question papers, Contents Page of Selected Journals, Manuscripts, Islamic Economics, and IIUM Publications. However, since the development of these collections, no study was conducted to determine how it is perceived by the users. Thus, it is in the light of the above that this study attempts to face this challenge.

Statement of the Problem

The central purpose of libraries is to provide information services that are useful and accessible to the users. With the current developments in ICT, libraries are provided with options to providing services in electronic format. Academic library is one example that offers information resources in a digitized format to the users. Today's academic libraries provide students with access to a wide range of electronic information resources (Dugdale, 1999). However, it is yet to be determined if students are really familiar with such services, are students really making effective use of it? do they (students) really have a kind of similar perception or they differ in their views about this current technological services provided by IIUM library? These are some of the questions that are normally asked by both individuals and researchers which their answers are yet to be provided. But it is remarkable to point out that significant investment is made by the university management for providing digital services and other computer-based technologies to ensure that students have access to information and other related services.

Few studies such as Abu Bakar (2005), Quahiba (2001), Aman (2004), Rahim (1994), have attempted to look at the input digital collection and use variously. However, none of these writers conducted a research on Kulliyyah of Engineering postgraduate students especially in relation to how they perceive this new technology in terms of awareness, accessibility and usability. This is the main focus of this research.

Objective of the study,

The objectives of this research were as follows:-

1. To determine the postgraduate students awareness of the IIUM digital library services
2. To determine the level of accessibility provided to students
3. To examine the level of usage among postgraduate students
4. To determine students' perceptions of the digital library services
5. To find out the problems encountered by the students when using the digital library collection.

Research Questions

This study is guided by the following questions:

1. Are the postgraduate students aware of the IIUM digital library services?
2. How do the students search the digital library collections?
3. How frequently do students make use of the digital library collection?
4. How do postgraduate students perceive the IIUM digital library services?
5. What are the problems faced by the students when using the IIUM digital library collections?

Significance of the studies

The main objective of the research was to determine students' perceptions of the IIUM digital library services. It also investigated the level of accessibility and use of the digital library collection among the students. The study identified the problems encountered by students while using the DLC. Thus it is significant in justifying the roles and functions of the library itself. The research is also significant as digital library use today tends to affect students learning and performance in research, and therefore can be considered as important tool in academic environment. Hence, it is expected to be useful for libraries, users and researchers. The research is also significant because it will contribute to the field of existing literature which will greatly

benefit the students and researchers. Besides giving tremendous implications to practice, this research is also expected to contribute to the field of digital library research conceptually and methodologically.

Most importantly, the IIUM libraries will be able to know the problems or barriers encountered by users in the use of the digital library collections and services. Therefore the study would help the library to improve on the existing DLC and services and as well, plan for future digital library services to meet the changing needs of it multi- dimensional students.

Methodology

The aim of this study was to survey students' perceptions of the IIUM digital library collection. This involved gathering data from the research population. Thus quantitative Survey method was adjudged as the best method for this type of research. A sample size of 164 post-graduate students of the faculty of engineering was randomly selected and the questionnaires personally administered and collected from them by the researcher. The data collected were analyzed using descriptive statistical tools such as tables, charts, graphs, percentages and frequency distribution.

Data analysis and interpretation of result

Here, the data collected were analyzed and the results presented. Table 4.1 shows the demographic characteristics of the respondent who participated. The results indicated that the male respondents constitutes the larger portion of the survey population 111(67.7%) while the females more or less half of the males with 53 (32.3%). This is not surprising because engineering faculties are usually considered a male dominated profession because in involves a lot of sophisticated machine handling activities. In terms of age, the study revealed that majority of the respondents ranged between 23-27 years (65.2%), while on the other hand those respondents that are above 27 constitutes the least 57 (34.8%). From the data collected there is evidence to this effect because majority of the postgraduate student are from master's program and are from the first group 23-27 years. That is to say they are far much in number than the PHD students.

The table also shows that more than one quarter (1/4) of the respondents with 46 (28.0%) are from material and manufacturing department. This is in line when compared with the total population of the respondents because the department of material and manufacturing has the largest number of postgraduate students in the kulliyyah of engineering. This is followed by the

department of Mechatronics with 34 (20.7%) students who respondents, while on the other hand the least number of respondents came from mechanical engineering department, 11(6.7%)

Table 4. 1: Demographic Distribution of Respondents

Variable	Frequency	Percentage
Gender		
Male	111	67.7%
Female	53	32.3%
Age		
23 – 27years	107	65.2%
Above 27years	57	34.8%

Information on IIUM Digital Library Awareness

The frequency distribution of participants responses in respect to being aware of the IIUM Digital library services is shown in table 4.2 from all indications from the results, majority of the respondents indicated that they are aware of such services which depicts above 70% responses against those who are aware of not all but some of the services, such as the multimedia.

Table 4.2: Frequency Distribution of Participants Awareness of the Digital library services

Services	Yes	%	No.	%
Online database	130	79.3	34	20.7
IIUM publication	126	76.8	39	23.8
IIUM e-books	131	79.9	33	20.1
IIUM e-journals	123	75.0	41	25.0
IIUM Open Access resources	118	71.9	46	28.0
e-manuscripts	118	72.0	45	27.4
Multi-media collections	117	71.3	47	28.7
Past Examination question papers	138	84.1	26	15.9

Figure 4.1 depicts the methods through which participants search for the digital contents of the IIUM digital library and the results illustrated that almost one third (1/3) 53 (32.3%) of the respondents used the IIUM online database while others used the online catalog 46 (28.0%) and other methods 48 (29.3) which has not been specified by the respondents. It is clear that the least used digital service hear is the use of institutional repository which indicated 7 (4.3%).

Figure 4.1: Frequency Distribution of How Participants Search items in the digital collection

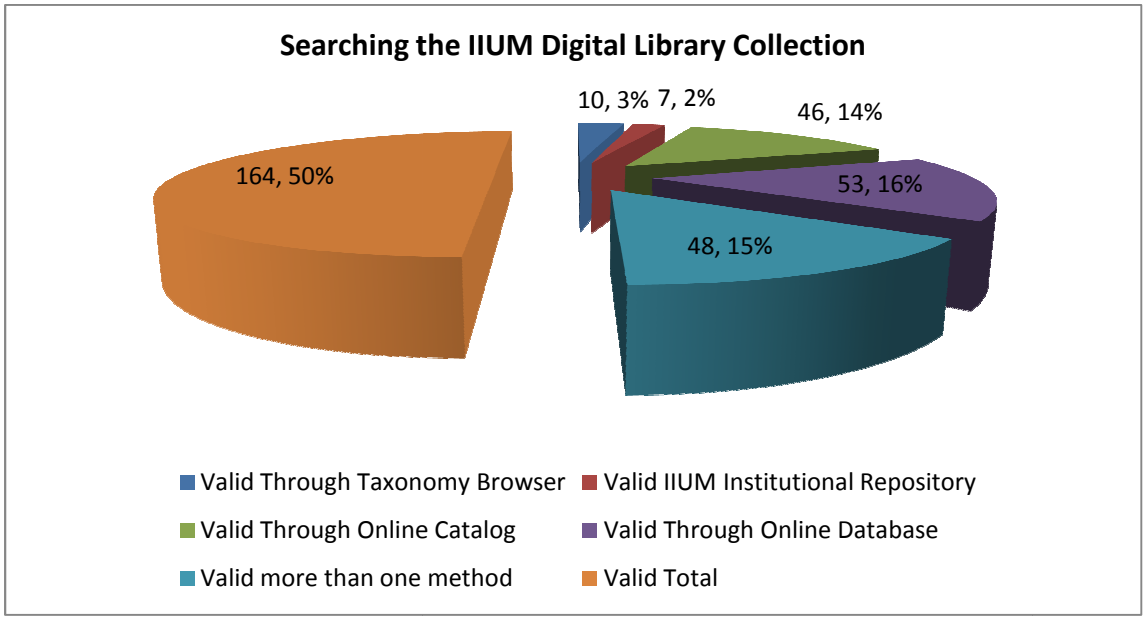


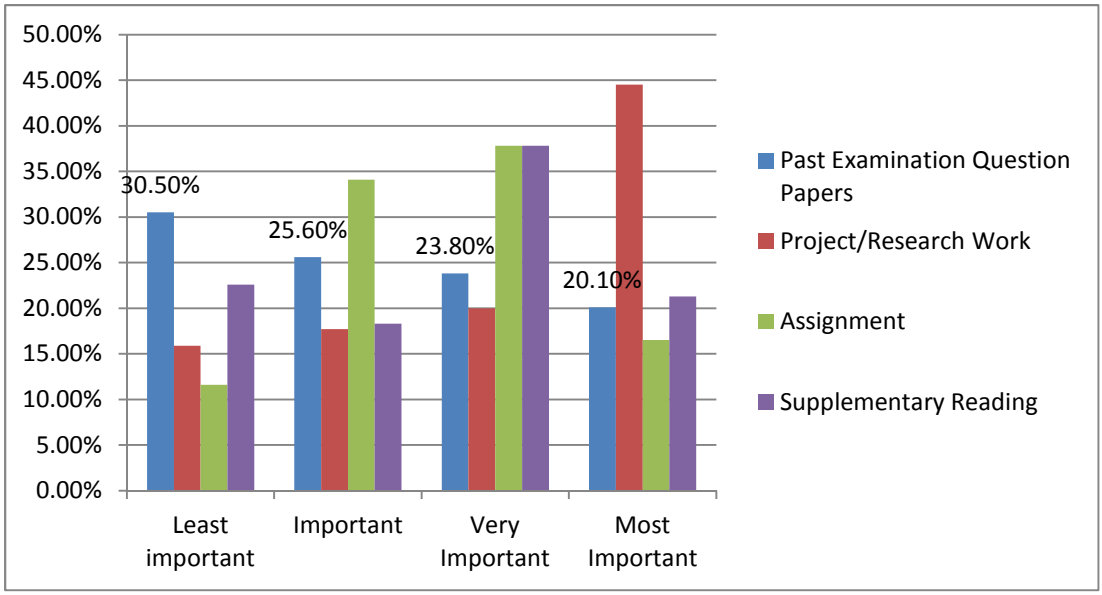
Table 4.3 below shows the response rate of respondents as regards the frequency of using the IIUM Digital library collection. It indicated that Weekly use has more popular among postgraduate students 42(25.6%), followed by students who used the digital collection 2- 3 times a week 30 (18.3%). Daily usage shows 21 (12.8% while on the other hand those who used the digital contents twice in a semester and fortnightly shared equal portion of the services. This result indicates that majority of students used the digital library collection more on weekly basis.

Table 4.3: Frequency of using the Digital Library Collection

	Frequency	Percent
Rarely	29	17.7
Twice in a Semester	12	7.3
Fortnightly	12	7.3
Monthly	18	11.0
Weekly	42	25.6
2-3 Times Weekly	30	18.3
Daily	21	12.8
Total	164	100.0

Table 4:4 above shows the student's ratings of the digital library contents in terms of importance. It appeared that the postgraduate student valued projects and research work the most important constituting 44.5%, while supplementary reading carries 21.3% and using the resources for assignment purposes make up the least percentage 21.3%. This however indicates that majority of postgraduate students in the kulliyyah of Engineering made use of the IIUM Digital resource for carrying out their projects and research work as well.

Fig. 4.3: Quality of Digital Resources and services based on importance



Students Perceptions

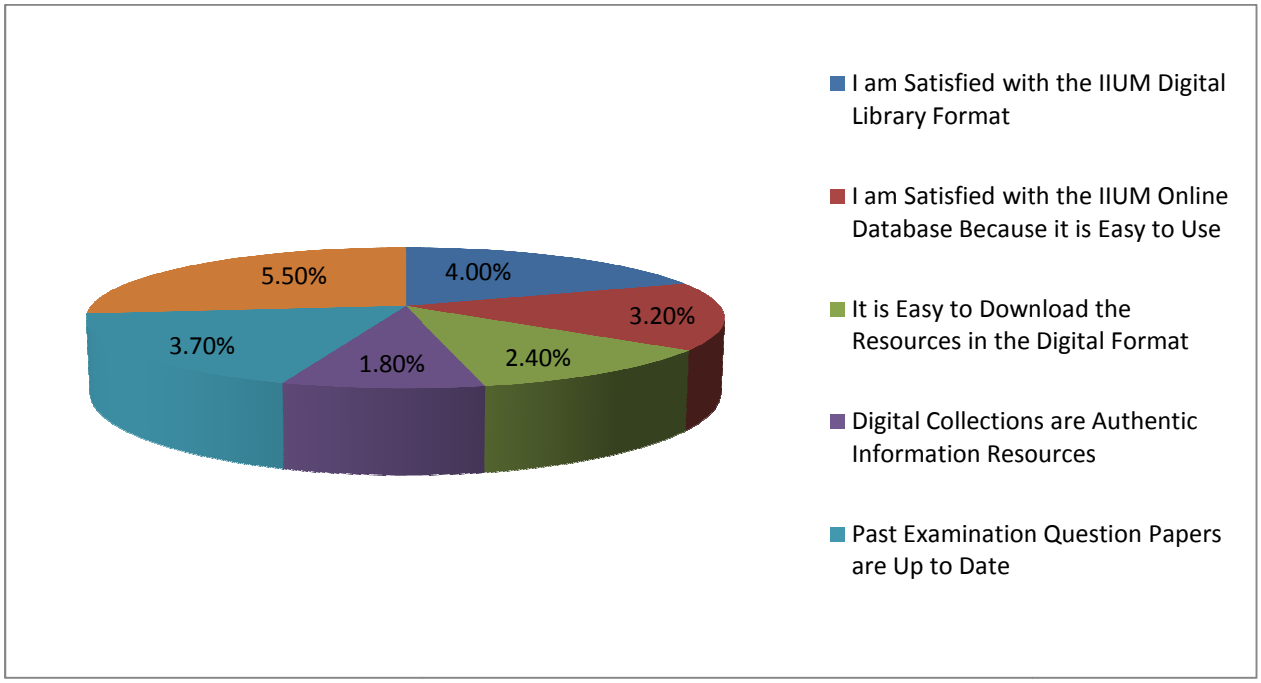
Table 4.4: Frequency Distribution of perceptions of students on the IIUM Digital services and usage

Perceptions	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
Search Options are Helpful	2.4%	1.2%	21.3%	56.1%	18.9%
It boost independency in resources searching and use	2.4%	.6%	37.2%	11.6%	1.2%
Digital collection are authentic information system	1.8%	10.4%	40.2%	39.0%	8.5%
Past examination question papers are not up to date	3.7%	17.7%	35.7%	32.3%	11.0%
Digital library helps to improve your performance	1.8%	4.3%	38.4%	39.6%	15.2%

The above table (4:4) indicated the perceptions of IIUM Engineering postgraduate students regarding the IIUM digital library services and usage. The result shows that most of the students perceived the digital library positively. This is because when the students where asked whether search options are helpful, about one third (56.6%) of the postgraduate students agreed that the digital collection was helpful to their studies, while only 11.6% accepted that it encouraged indecency in searching. Furthermore, in the case of the authenticity of the digital content, 39% of the students agreed to this statement which sheared equal popularity with the view of students regarding the statements as to whether the services also help in terms of improving their performance. On the other hands students showed less satisfaction regarding the update ness of the past examination question papers with just 11% response rate. There is also a clear indication that students do not agree that boost independent reading because only 1.2% of the students agreed with the statement which is equally not encouraging.

Figure 4.3 shows the Information on the Satisfaction level of students regarding the use of the Digital Library services and collection. Almost half of the students 43% accepted that they are satisfied with the Online Database because it is easy to use and that it is also easy to download the resources in the digital format 42%. This shows quite a number of the students agreed that they are satisfied with the IIUM digital library services in terms of its contents except in the case of the browsing options where almost ¼ of the respondents appeared to be neutral about whether they are satisfied with it or not. Based on the above result we can conclude that the IIUM digital content format and contents has satisfied the students' academic purpose although with few weaknesses in terms of inadequate up to date supply of past question papers.

Figure 4.3: Information on Satisfaction regarding Using the Digital Library services and collection



PROBLEMS FACED WHEN USING THE IIUM DIGITAL LIBRARY RESOURCES

Table 4.5: Frequency Distribution identifying the problems faced by Students

when Using the IIUM digital library

Statements	Responses			
	Yes	**%**	**No.**	**%**
Accessing the Content Pages of the IIUM Unpublished Journals	74	45.1	90	54.9
Accessing the Past Examination Question Papers	82	50	82	50
Accessing the IIUM Publication	59	36	105	64
Accessing the e-manuscripts	88	53.7	76	46.3
Accessing the Video Collections	74	45.1	90	54.9
Using the IIUM Online Database	64	39.0	100	61.0
Using the Open Access Resources	73	44.5	91	55.5
Using the Institutional Repository (IREP	70	42.7	94	57.9
Using the Library Online Catalog	63	38.4	101	61.4

We can see from table 4.5 that majority of the Engineering postgraduate pointed out that they have no problem with accessing the IIUM publication 105(64%) and the online database 100 (61%) respectively. However, the highest problem of students is in dealing with e-manuscripts which has about 88 (53.7%) responses, which indicated that more than one third (1/3) of the students are involved. Another area of concern is the case of accessing the past examination question papers which sheared equal proportion 50% between the students that responded they do not have problem with those that pointed out they encounter problem when accessing the digital contents of the past examination question papers. This shows that an improvement is required in the digital preservation of this content so as to make it more easily accessible to students.

Discussion

The main objective of the study is to examine students' perceptions of the IIUM Digital library services and usage, with emphasis on the IIUM kulliyyah of engineering postgraduate students. The study find out that majority of the respondents are male twice the number of the female, which is also similar to the number of responses that came from the local students compared to the international students and above all, almost one third of the responses were from the material and manufacturing department. The findings clearly revealed that the Kulliyyah of Engineering postgraduate students are aware of the existing IIUM digital library services but the usage appeared to be very weak among students. Matusiak, K., K. (2012) assert that The users, especially students do not perceive academic libraries as a useful source of digital images and used search engines when searching for visual resources. This however shows that although efforts are made to improve services some users do not see libraries as suitable ventures for disseminating these electronic services as in the findings of Matusiak (2012). In fact students spends less time to really utilize the digital library resources and this has also made some students to have less knowledge about some of the resources that are also available in digital contents in the IIUM digital library.

The findings equally indicated that students experiences difficulties especially in accessing up-date past examinations question papers 105 (64%) as well as other digital contents of the IIUM library. Lombardi, J., Y. (2000) pointed out that "Helping users to find resources in a digitally disordered world supposed to be the first priority of the librarian in today's digital age before even considering the digitizing the collection which might come as the second priority.

CONCLUSION

The study basically based its self on examining how students perceive the IIUM digital library services and how the students make effective use of it. The study went further to examine the means through to which search and used the digital resources provided by the IIUM digital library. And the data collected was analyzed and revealed some existing shortcomings on the side of both the students and digital library as well which includes the law utilization of the digital library resources by engineering postgraduate students as well as unavailability of some past questions papers and inability of student to access the full contents of IIUM publications

which are very important tools that assist postgraduate students in writing their research, because it serve as guide to students in the cause of undertaking research work and even other leaning activities.

RECOMMENDATION

Based on the findings and conclusion of this study, the following recommendations are therefore made.

1. The university management should strive to make an effort to upgrade the digital library system to be more user friendly so that it will be more easier to use by students
2. The institution can also organize a kind of training workshop at least once in a semester. For the postgraduate students in order to enable them effectively utilize and benefit from this new library technology.
3. The library should put more step forward in the digitization of up to date past question papers because they serve as guides for students on how to go about confronting their end of semester examinations.
4. The library management should provide a feedback stock which will serve as a means for users' responses on the performance of each digital item or content and the level of satisfaction derived.

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