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STUDENT PERCEPTION ON THE USE OF TABLET COMPUTER IN ACADEMIC LIBRARY

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ABSTRACT

The speed of technology adaptations has made it necessary to provide the latest tools to facilitate students in academic libraries. However, the available library services are not used effectively and efficiently by the students. Unattractive library services have been identified as the problems that make the library incompetent in serving and delivering successful library services to the students. This paper attempted to explore the perception of undergraduate students regarding possible use of tablet computer for library services in the academic library. Quantitative approach is adopted with the structured questionnaire has been distributed to 155 undergraduate students. The result shows that the acceptance of a tablet computer by the students is satisfactory and has a good perception to enhance library services. Many students have responded that the tablet computer is an interactive and innovative way to use library services. This paper makes a significant contribution to the academic library services by clarifying the usefulness of tablet computer and the importance of having ICT application for enhancing library services in Malaysia. This paper provides evidence on the use of ICT application by the undergraduate students in retrieving information and their attitudes toward applying ICT application in the academic library.

Keywords: Information Studies, Academic Library, ICT Application, Tablet Computer, Library Services

INTRODUCTION

Academic libraries are an essential part of higher education institution. In a rapidly changing educational environment, the academic libraries need time and resources to meet the needs of faculty and students. The development of new applications for smart phones is enhancing the ability in using a wide range of information resources in various formats. The librarian professionals are vital to the development and enhancing their services to the students. The mobile devices such as laptops, net books, notebook computer, tablet computer especially iPhone, and iPad have become a popular tool of communication devices that have internet capability and functionalities. The mobility and multi functionality make it ideal for reference and in particular, roving reference services in the library (Gadbsy & Qian, 2012).

Nowadays, the speed of technology changes is increasing rapidly. The availability of a new trend in technology and gadgets has improved the quality services of an organization. The technology changes have brought libraries to the new changes in its services and facilities. As mentioned by Nurul et. al. (2013) in her study, most children in Malaysia are influenced and attracted with the interface designs of the web pages which includes digital library services. Library services need to be more advanced and have the latest trend to facilitate the library users with an attractive and interactive ways as well as making it useful for the future generations (Elahi & Islam, 2014).

The availability of a tablet computer and other mobile devices have provided new opportunities for communication, creativity, and customer services. In fact, the mobile devices are quickly becoming the main method to access reliable information. With mobile

devices surging in popularity among users, library innovators have started experimenting with these technologies in their services (Renick & Spencer, 2012). Will this advancement of information technology facility improve the library facility and increase awareness on available library services? The available library services are not used effectively and efficiently by the students. The study by Elahi and Islam (2014) mentioned that academic library losing their acceptance by users for slow service providing and demand for accessible mobile content of information on the web.

The library incompetence in serving and delivering their services through ICT application makes the students to be unaware about the availability of the services (Gadbsy & Qian, 2012). The findings of the research by Lippincott (2010), most college students own mobile devices and the capabilities of those devices are expanding. Libraries have the opportunity to introduce new types of services to users of mobile devices. This opportunity can lead to new forms of engagement with student learning as well as involved by academic library to be a strong partner in teaching and learning process of their higher learning institutions. Murphy (2017) revealed that the academic library in the future need to redefine its learning and teaching direction with responsibility more broadly for a variety of academic literacies that contribute to and support student success. Many studies have been conducted regarding the use of mobile phones for library services, but there is a gap in the perception of the students towards implementing tablet computers in the academic library (Elahi & Islam, 2014; Lippincott, 2010). Therefore, this paper has made an attempt to discover the perception of undergraduate students about the potential use of tablet computers for library services in the academic library. This paper has made contributions and evidence to the library management in their services as well as to examine the frequency of library usage among the students.

ICT APPLICATION IN ACADEMIC LIBRARIES

Information Communication and Technology (ICT) has created a new opportunities for the academic libraries to overcome the time and place limitations of printed materials. The roles of librarians and libraries in the digital age are slightly changed to a different way of accessing information (Aliyu, 2015). The application of technology in information work, teaching, research, learning and entertainment is almost limitless. The adoption of ICT in academic libraries requires the librarian to be enhanced and well trained in technical skills, ICT skills and managerial skills. The nature of books has changed because of the technology with different formats on digitized library resources such as e-book, e-journal and e-text. Library has to adapt the technology to improve their library collections such as online collections and digital collections in their library services.

TABLET COMPUTER FOR LIBRARIES SERVICES

Tablet computer is one of the powerful technology nowadays. Tablet computer also known as Tablet PC such as Apple iPad, Samsung Galaxy Note, Kindle Fire, Lenovo and Google Nexus. Thompson (2011) highlighted that tablet computer as having the potential to introduce some of the new information management tools to the users. Marziana Mohamed Alias (2012) reported in the press by USM Vice Chancellor said that the latest service provided by library hope to attract a larger number of the campus community to frequent Hamzah Sendut Library. This is also equivalent to a statement published in the news by The Star Online (2012), USM Vice Chancellor has hoped to move USM Libraries would encourage more of its students to use the libraries. There are less number of students who came to the academic library to use the library services. This continues to offer and add to the

idea of implementing tablet computer in the library services in order to attract and increase the frequency of library usage.

The implementation of tablet computer for librarian has been studied and examined in the context of public library. A survey conducted by Renick and Spencer (2012) on reference librarians showed that iPads have more potential and suitable technology to enhance the services, encourage participation and share information among librarians. It was then agreed by Maloney and Wells (2012) which reported that tablet computers could be used as an innovative way to reinvigorate at the reference desk to facilitate more active learning by allowing the students to do the searching and navigating with the iPad. The study by Reyes et al. (2017) discovered that tablets complemented the librarian, but did not replace their computers for work-related activities. In addition, Lotts and Graves (2011) found that iPads are ideal tools for multimedia resources. Therefore, it was suggested that mobile devices such as tablet computers or iPad have potentials to be implemented in the academic library for the students.

In this digital world, tablet computer plays an important gateway to increase awareness and enhance the students in lifelong learning in the higher learning education. The study by Maloney and Wells (2012) agreed that librarians should use the tablet computer at the reference desk to facilitate more active learning by allowing students to do the searching and navigating with the tablets. They also recommended advancing students information literacy and critical thinking abilities in using tablets. This is important in making associations to the user profile in using a tablet computer. In addition, tablet computers have also given the mobility to the librarians staffing the virtual reference service (Lotts & Graves, 2011).

Maloney and Wells (2012) found that some students enjoyed using tablet computers as a flashy new technology. The iPads or tablet computers give impression of a really cool style and attract the students to use it for library services. Besides that, the study by Renick and Spencer (2012) clarified that the libraries who used tablet computers in the reference department could help the librarian to be more effective with the students. In fact, the advantage use of iPad is to enhance user engagement during reference interaction (Maloney & Wells, 2012). The challenge for academic libraries is to create convincing information searching and to make digital content available in a way that users will find not only acceptable but meet their needs.

Since library services should benefit all ages of users, the understanding of a user profile or demography is very important in using tablet computer for library services (Aliyu, 2015; Elahi & Islam, 2014). The mobile phone especially revolution of tablet computer offers both challenges and opportunities for academic libraries (Lippincott, 2010). For example, the librarian will know who tend to use (either male or female), age preferences (either first year students or senior students), and which faculty or major courses students preferred to know and use tablet computer. A collaborative effort between librarians and faculty has improve and increases student interaction in the classroom using tablet technology (Kleinveldt & Zulu, 2016). In fact, mobile technology allows students to access learning materials at any time and anywhere to empower them to learn.

Research has also been done that looks at how the tablet computers influence the usage of library services. Maloney and Wells (2012) discovered the first year students were the most frequently users of tablet computer in library services compared to senior students. They then highlighted that the business major students were the most common user in using tablet computer such as Apple iPad. The success in using tablet computer in library services depends on the tablet as a tool such as mobility, functionality, easy to use, user friendly and reasonable price. Kleinveldt and Zulu (2016) has successful in their study that mobile technologies incorporate with their information literacy training programs. Each students

improved their information literacy skills using the tablet computers in the academic library which were able to find reliable and relevant information resources. Besides depending on tablets as a tool, the success in implementing the usage of tablets in library would also be associated with user profile, demography, behavioural and perception of users.

Thompson (2011) mentioned that in order to promote the Apple iPad program, library staffs or library professional should give references to several groups on campus, especially students, administrative staff, and lecturers. The multifunction use of tablets makes it ideal for references. Tablet computer has the function of mobile catalogue, a fully featured Web browser, a calculator, an eBook reader, a music player and others (Lotts & Graves, 2011). On the other hand, the importance of tablets has encouraged conversations on campus about eBooks and the future of textbooks (Thompson, 2011). Chaputula and Mutula (2018) revealed that all libraries were moving towards implementation of library and information services on the mobile phone platform. The study findings indicated that only few of students using their mobile phones to access resources from the library. The development and implementation of mobile devices is rising and challenging in daily life especially to the young generation. The tablets and smartphones is important for the educational process management in the university. The integrated roles of tablets cannot be ignored in the modern educational environments (Ahmed & Salem, 2017). Therefore, the academic library should have the ability to meet the needs of its user in accessible digital content and improving their library services. In fact, the implementation of mobile technology could support increase on efficiency and effectiveness of library service delivery.

METHODOLOGY

The methodology includes a quantitative approach. Quantitative approach was chosen and applied to measure the perception of the undergraduate students regarding possible use of tablet computer for library services in the academic library. The methods used highly structured and consistent during data collection (Elahi & Islam, 2014). The study was carried out through survey method using a structured questionnaire. The method used is random sampling which is undergraduate student visiting academic library of higher learning institution. One hundred and fifty five (155) structured questionnaires were distributed to the respondent. Out of them, hundred and fifty two (152) questionnaires were received. The questionnaires were standardized to each of the questions given to the respondents and data was collected from undergraduate students in the higher learning institution. The format of questionnaires were open ended questions and Likert Scale measurement scale from One (1) until Four (4). Responses were analysed using the descriptive analysis techniques of SPSS 20.0. The result is presented in the tables and figures.

RESULTS

A descriptive analysis of 152 undergraduates students who have visited the library and are using the library services in one of the higher learning institutions in Malaysia was conducted.

TABLE 1. Gender of respondents

	Frequency	Percent (%)
Male	56	36.8
Female	96	63.2
Total	152	100.0

TABLE 2. Higher learning institution programmes

	Frequency	Percent (%)
Civil Engineering	24	15.8
Electrical Engineering	38	25.0
Hotel Management	61	40.1
Business Administration (Marketing)	11	7.2
Business Administration (Operation Management)	7	4.6
Business Administration (Human Resource Management)	11	7.2
Total	152	100.0

Based on Table 1 and Table 2, the result shows that 63.2 percent (96) or more than half of the respondents are female while 36.8 percent (56) of the respondents are male. On the other hand, the undergraduate students from Hotel Management Program are the highest respondents which are 40.1 percent while the lowest respondents from Business Administration in Operation Management Program which are 4.6 percent. The other respondents are from different programs which are Electrical Engineering (25 percent), Civil Engineering (15.8 percent), and both Business Administration in Marketing and Business Administration in Human Resource Management have the same outcome which are 7.2 percent.

TABLE 3. Frequency of students visiting the library

	Frequency	Percent (%)
Several times per day	13	8.6
Once a day	10	6.6
Several times per week	78	51.3
Once a week	26	17.1
Less than once a month	23	15.1
Once a year	2	1.3
Total	152	100.0

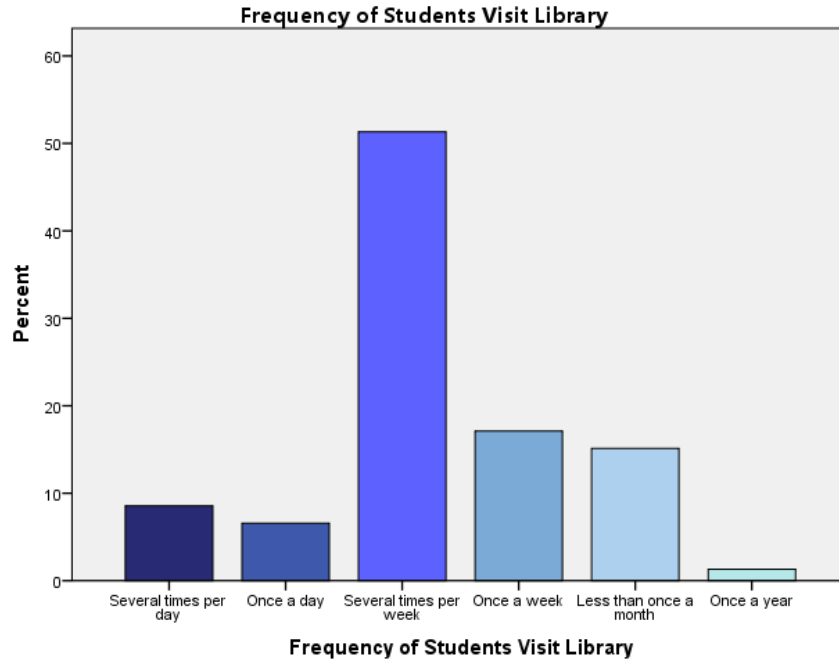


FIGURE 1. Frequency of library usage

Referring to Table 3 and Figure 1, the highest frequency of students (51.3 percent) visiting the library are several times per week. On the other hand, the less frequency of students visiting the library is 33.5 percent, which happens to be once a week (17.1 percent), less than once a month (15.1 percent) and once a year (1.3 percent). The frequency level of students visiting the library once a day (6.6 percent) is low. This information shows that the students have rarely visited the library. The library should provide and add mobile technology especially a tablet computer in order to enhance their traditional services, making them not only more accessible but also more relevant to their users in the digital world.

TABLE 4. Purposes of visiting the library

	Responses	Percent (%)
Search information	116	24.2
Borrow and return	86	17.9
Read for test	59	12.3
Discuss study	83	17.3
Internet facility	101	21.0
Photocopy machine	35	7.3
Total	480*	100.0

*Total N is more than 152 because the respondents can choose more than one answer.

TABLE 5. Library services

	Responses	Percent (%)
OPAC	59	19.5
Online database	78	25.7
E-book	31	10.2
Interlibrary loan	6	2.0
Library website	74	24.4
Self-copying machine	55	18.2
Total	303*	100.0

*Total N is more than 152 because the respondents can choose more than one answer.

Table 4 shows the highest result is 24.2 percent of students which means those who came to the library for the purpose of searching for information while the lower result shows that 7.3 percent students came to the library for the purpose of using a photocopy machine. Besides that, Table 5 shows the highest result is 25.7 percent of students which the ones who used online database as services in the library, whereas the lower results show that 2.0 percent students came to the library and used service of interlibrary loan. The usage rate of E-book (10.2 percent) is low among the students in the library. This information shows that the student unaware about the availability and accessibility of E-book in the library. The library needs to take this opportunity to enhance the services on E-books through the tablet computer or other mobile devices. The impact on library usage will increase when the tablet computers is introduce in the library.

TABLE 6. Activities on tablet computer among students

	Responses	Percent (%)
Read news	95	19.0
Social network	112	22.4
Play game	89	17.8
Post photo	66	13.2
Listen music	84	16.8
Read E-book	54	10.8
Total	303*	100.0

*Total N is more than 152 because the respondents can choose more than one answer.

Based on Table 6, the result shows that 22.4 percent of respondent are using tablet computers for accessing social network while 10.8 percent of the respondents are using tablet computers for reading E-book educationally. This evidence indicates that the students are less exposed to the E-book services provided by the library. The result determines the usage of library services among the students should be enhanced by the academic library.

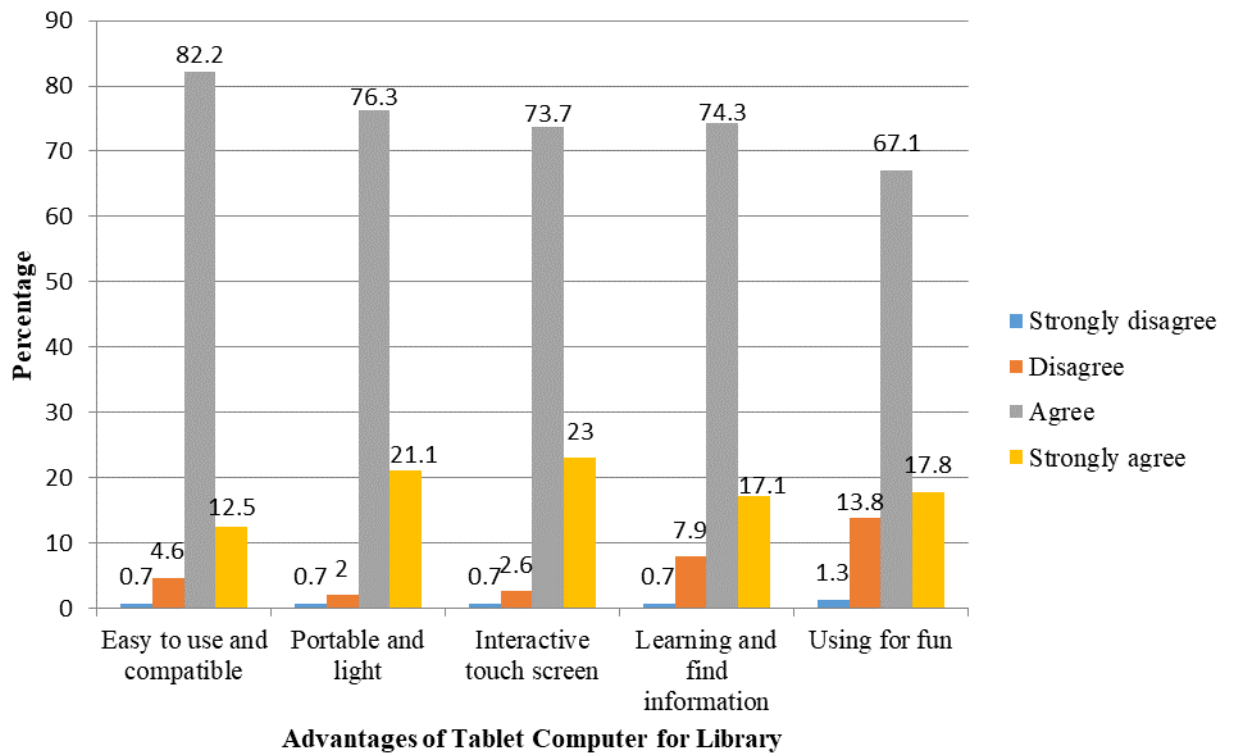


FIGURE 2. Perception of tablet computer

Figure 2 shows the graph consists of five questions in Likert Scale Measurement. Based on the findings, majority of the respondents agreed and strongly agreed on their perception of tablet computer. The result shows that tablet computer is easy to use and compatible (82.2 percent), tablet computer is portable and light (76.3 percent), using tablet computer for learning and find information (74.3 percent), tablet computer has interactive touch screen (73.7 percent) and using tablet computer for fun (67.1 percent). This has been mentioned and agreed by Maloney and Wells (2012) that tablet computer enriches reference transactions and increase students interactivity by allowing students to use tablet computer at the reference desk to search the library resources. In summary, the research result is consistent with the research findings of Lotts and Graves (2011) that tablet computer has many advantages and benefits. The acceptance of students on tablet computer has a good perception in order to utilize and increase the use of library services. Therefore, the result is relevant and useful for the library to provide the new facility for the students. The librarians should also provide several training lessons for the students.

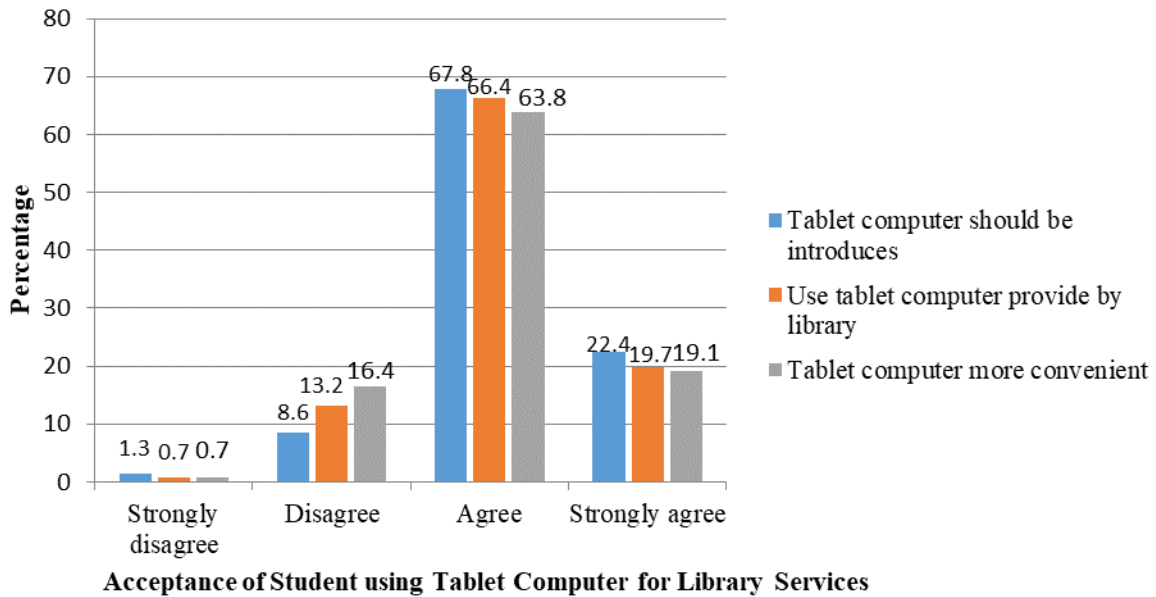


FIGURE 3. Acceptance of students using tablet computer for library services

The graph in Figure 3 shows the acceptance of tablet computer among undergraduate students. Based on the analysis, majority of the students agreed to accept the tablet computer as a technology in enhancing library services. This is proved by 67.8 percent of respondents agreed that tablet computer should be introduced in the library, followed by 66.4 percent of respondents who preferred to use tablet computer provided by the library. Besides that, 63.8 percent of respondent perceived that tablet computer is more convenient compared to a desktop or laptop.

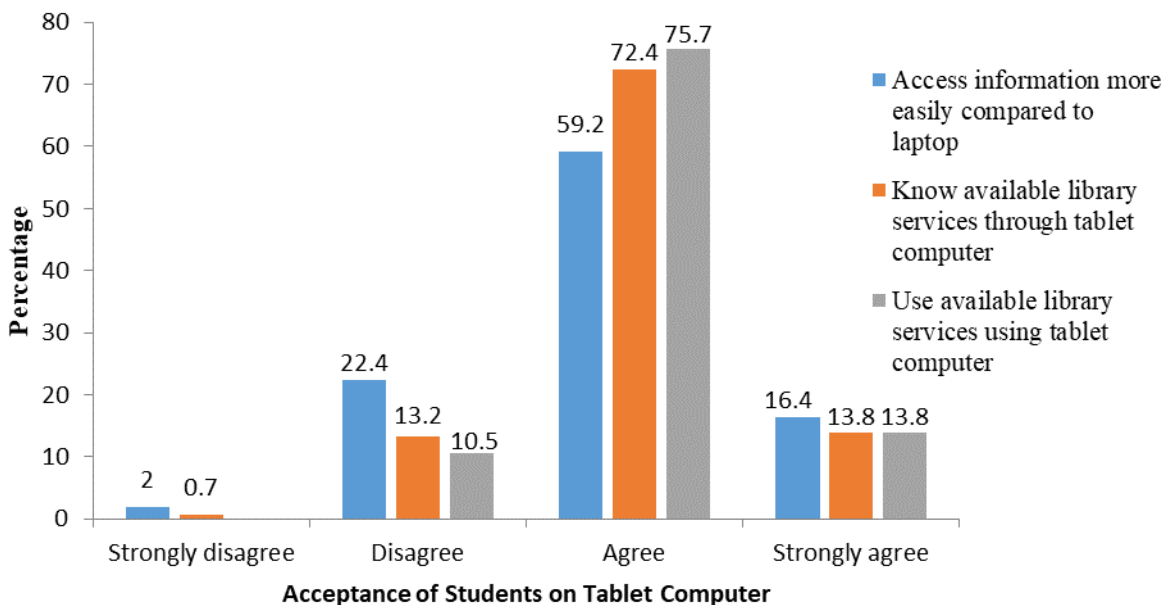


FIGURE 4. Level of agreement regarding possible advantage through tablet computer

Figure 4 shows the graph on the level of agreement regarding possible advantage of tablet computer in enhancing library services among undergraduate students. Based on the analysis, most of the students agreed and strongly agreed to accept the tablet computer as an ICT application technology for enhancing library services in the future. This is verified by

75.7 percent of respondents who agree that they can use available library services using tablet computer and 72.4 percent of respondents will know available library services through the tablet computer. The student used tablet computer to ease searching and accessing information available in the library. The results and findings based on the objectives applied in questionnaire showed that majority of the respondents support and agree with the suggestions and ideas on the use of tablet computer as ICT application in the library for the purpose of attracting the students to come to the library, increasing awareness and uses of library services, maximizing the usage of new technology for knowledge advancement.

CONCLUSION

Traditionally, libraries have served as a public good, providing resources and services to all, including those who could not have enough money to purchase some types of content or services on their own. In Malaysia, academic libraries play an important role in delivering their services to the students, lecturers and others. The academic library should have an ICT application loan program which includes iPad, tablet computer and other mobile device. The institutions possibly will begin to require the students to have opportunities to use the tablet computer for a variety of purposes in the learning process. E-books or books in digital form can be freely downloaded in formats that will enable individuals to read them on those applications.

Some academic libraries should take this strategy to attract and gain benefits for their library services. Interacting with the students in a program or survey can help the library to know the level of agreement and acceptance of library services. The librarians should be more dynamic to embrace the new technology and sustain their library in the digital age. ICT is the most influencing factors of today information society. Development of ICT is gradually increasing from time to time and rapid changes of technology makes the librarians aware and responsive on the existence and maintaining the library services using those technologies. Libraries should have a strategy to adopt the ICT as sustaining strategy to its library services. However, the relevance to implement the program or project on ICT in the library should be aware and support by the management of the institutions. Changing mentality with recent trends and changing needs should be adopted in academic library for being up to date with the global environment. The libraries should also upgrade the services from the printed collection to digitize collections. They need to maintain and sustain the library as a trusted institution of information in the digital era. The libraries should develop and provide mobile services that the users can access and retrieve the information through their mobile phone. The libraries also need to conduct information literacy class to help users to use the library resources more effectively and efficiently. The libraries are still relevant and significant to the users in Malaysia.

Adoption of ICT in library makes the library task more advanced, systematic and organized in order to become relevant and successful for the future generation. Majority of the student support and agree with the acceptances and ideas to implement the use of tablet computer in the library for the purpose of attracting the students to come to the library, increasing awareness and uses of library services, developing the usage of new technology for knowledge advancement. Consequently, tablet computer can be used as an innovative way to strengthen at the reference desk as to facilitate more active learning by allowing the students to do the searching and navigating with the tablet computer.

In conclusion, enhancing academic library through ICT application using table computer is suitable and recommended for the present and the future generation. It is possible to use tablet computer for accessing and finding information and knowledge in the digital environment. Everyone wants information in their hand, no matter what they are doing or

where they are in this modern age. Thus, the enhancement of ICT application for academic library services in a higher learning institution is essential.

The findings of the study show that the level of agreement and acceptance of tablet computer as one of the ICT application is satisfactory and increases the usage of library services. In fact, the finding shows the frequency of students visiting the library currently is average with 51.3 percent several times per week. This result determines the library should introduce new technology for the library services. Therefore, the availability and functionality of tablet computer as ICT application in the academic library will increase the library services effectively and efficiently. The study has revealed very useful results and evidence in a way it evaluated the perceptions of students on the library services and depicted the improvement in library facility. The use of tablet technologies in the area of information studies in Malaysia is scarce. A good understanding of the profile and perception by students that would influence their decision for future uses of library services would be a good guideline in planning for improvement and maximizing the library usage in higher learning institutions.

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