

A Study On ‘Utilization Of Unpad Library Management System By End-Users Using The Technology Acceptance Model’

Dr. M. Nageswara Rao^{1*}

Abstract

This paper study aims to analyze the use of Unpad library management system by end-users. This study uses qualitative research methods with a case study approach. Primary data was obtained from observations in 11 faculty libraries in Unpad and interviews with 140 users in 11 libraries. The results showed that most of the informants had used ULiMS when accessing the library at Unpad. However, some library users still use manual catalogs, search directly into the bookshelf and ask directly to librarians. This cannot be separated from the user's lack of knowledge about ULiMS, the habits and user experience with the previous library system. The results of this study are expected to provide input to the library in implementing a system so that the applied system can be received and used optimally by the user.

Key words: qualitative, management, library system, research methods, results, utilization

Introduction

The existence of libraries in universities should contribute to the achievement of the university's vision and mission. The library has a central role as a college partner in learning, research and community service. To be able to carry out these roles, a college library must have a good library management system. In an effort to improve library performance and services, in 2017, universitas padjadjaran (Unpad) introduced Unpad library management system (ULiMS) as an integrated library system for all libraries in Unpad. ULiMS is a system developed from the open source of senayan library management system (slims). Slims has been used by several faculty libraries in Unpad. However, the development of ULiMS requires that both users and non-slims users in Unpad apply ULiMS. The process of migration from the old library system run by each library in Unpad involves all elements in the university, including library users. Library users are a determining factor in the sustainability of library services. Therefore, library services must be user oriented. Fulfillment of information needs and satisfaction of user services is the key to user loyalty to the library [1] [2]. The library needs to emphasize the value of each service provided so that users continue to use the resources in the library. The library must be able to accommodate technological developments that are in accordance with the characteristics of its users, among others by accommodating the expectations of the digital generation and the generation of immigrants simultaneously [3] [4]. In developing a new library management system, the institution needs to ensure that the system is accepted by the user, can run well and improve the quality of the previous system [5]. One model that can be used to analyze the acceptance of new technology-based systems is the technology acceptance model (tam). Tam describes that perceived ease to use, perceived usefulness and behavioral intention as determining factors for someone in adapting a system [6]. In tam, perceived usefulness is characterized by a degree of confidence that the system will support a person's performance, while perceived ease to use is characterized by a degree of confidence that a perceived system does not require too much effort both physically and mentally [7]. Some studies mention the weakness of relationships between variables in tam. One of the weaknesses is that intention behavior is not enough to represent the actual user because there are many uncertainties and other

¹ *Chief Librarian, Department of Library and Information Science, Avanthi's St. Theresa Institute of Engineering and Technology, Garividi (Cheepurupalli), Vizianagaram (District), Andhra Pradesh, India.

factors that determine whether a person will adopt a technology or not [8]. However, several other studies show that TAM can explain the determinants of the acceptance of technology by users [9] [6] [10] [11]. This study aims to analyze the use of Unpad library management system by end-users using the technology acceptance model. The results of this study are expected to provide input to the library in implementing a system so that the applied system can be received and used optimally by the user.

Method

This study uses qualitative research methods with a case study approach. Case study helps us to answer the "why" and "how" questions [12]. Case studies can also explain to evaluate a case according to the context [13]. In this study we interviewed 140 Unpad students who at the time of the study were using library services at the library of each faculty in Unpad. A total of 11 of 16 faculty libraries in Unpad became the object of this study, namely the faculty of communication sciences (fikom) library, the faculty of psychology (fapsi) library, the faculty of mathematics and natural sciences (fmipa) library, the faculty of social and political sciences (fisip) library, the faculty of nursing (fkep) library, the faculty geological engineering (ftg) library, the technology and agricultural industry faculty (ftip) library, medical faculty (fk) library, faculty of agriculture (faperta) library, the faculty of dentistry (fkg) library and the faculty of pharmacy library. Triangulation is done by triangulating theory by analyzing various theories obtained through literature review. Research data is mapped into categories, analyzed, interpretations are then concluded.

Result and discussion

A library management system can at least be seen from 5 dimensions, namely the function dimension, architectural dimension, community dimension, code dimension and schema dimension [14]. In the function dimension, a library management system shows features such as series acquisition and management functions, end-user documentation, circulation and online public access catalog (opac). In architectural dimensions, a library management system relates to architectural applications with platform support that is long-lived and has scalability. In the community dimension, a library management system must be able to describe the level of activity in software development in the Community including the existence of service organizations and the development of the roadmap, opensource licenses, etc. In the code dimension, a library management system uses code design such as object-oriented programming (oop), and in the scheme dimension, a library management system must be able to demonstrate sophisticated schema design and capability [14]. The use of a library management system by end-users, focuses more on the dimensions of function, especially on the function of information organizations and information retrieval systems.

Users perceived usefulness toward Unpad library management system

The research informants argued that ULiMS made the library collection process easier and more efficient because member data had been integrated with student data through the use of student identity cards (ktm). Users also consider that ULiMS has been very good at organizing collection data so that collection data that was originally not well organized became more organized. This can be seen from the differences when searching for information, where in the old system users find it difficult to find collections available and with ULiMS it is easy to find. The information retrieval system also becomes more efficient because users can obtain the existence of collections in all libraries in Unpad with one search. Especially for journal collections, users hope that they can download e-journal files, which at this time, e-journal service is only for reading in libraries and cannot be downloaded. The ease of access to ULiMS is accompanied by good service from librarians. Librarians direct and guide users very kindly and well.

Users perceived ease of use toward Unpad library management system

According to the informants, the ease of access through the ULiMS library includes library access is integrated with the student card (ktm), and the ease and efficiency in information retrieval. The majority of informants mentioned that their goal of using ULiMS is to find the location of the book, looking for a book that is difficult to find, look for the description and title of the book, simplify and speed up the search. The informants argue that one that must be corrected in ULiMS is about interfaces. The appearance of ULiMS is considered less attractive in terms of the theme, color and letters used. They suggest that the appearance of ULiMS can adjust to the times so that it looks attractive.

Users intention behavior toward Unpad library management system

Most informants have used ULiMS when accessing the library at Unpad. However, some library users are still using manual catalogs, looking for collections directly to the bookshelf and going directly to librarians because they do not know the existence of ULiMS that they can access either through the internet or through computers in the library. Fortunately this was offset by excellent and responsive service from librarians. Librarians help users find the collections they need patiently. To bridge users who are still doing manual collection searches, several faculty libraries have created posters to help users use computer or internet-based library management systems. However, some users choose to search directly into the bookshelf or ask the librarian directly because they think it will speed up the search results. This cannot be separated from the lack of knowledge, habits and user experience with the previous library system where data collection in the system is sometimes different from the collections on the shelf. Several other users argue that the lack of information from both the central library and faculty libraries is an obstacle for users to use ULiMS, so users prefer to ask directly to librarians rather than search on ULiMS. Other obstacles that cause users have not used ULiMS are the number of computers in the library that are not in accordance with the number of users, there are several computers that are damaged so that they cannot be used, there are still letters that are mistaken so that users do not find the title they are looking for, internet network disruption, the availability of less updated books where sometimes the books on ULiMS available are being borrowed by other users, the design of the retrieval system in ULiMS is difficult to understand especially for users who have just accessed it, there is no cover picture of the book and there is a metadata from some references that have not been filled. For example some thesis titles and theses are not accompanied by abstracts, whereas abstracts are very important and all students have uploaded thesis data and theses completely. These inhibiting factors must get the attention of librarians and system developers so that all library users will and voluntarily use ULiMS. Factors driving users to use ULiMS are the aspects of speed, accuracy, effectiveness and efficiency of the information retrieval system in ULiMS.



Tam is an information system theory where information seekers or users can accept and adapt the use of new technologies. There are many things that can be done to achieve these goals. In the case of users who have not used ULiMS at Unpad, it is important to realize that the use of technology is related to student literacy towards technology. Libraries need to provide user education as a basis for users who are not familiar with the new library management system who have the skills to use the new system. System developers must also be able to accommodate the opinions of users to improve the system according to the user's wishes.

Conclusion

Most informants have used ULiMS when accessing the library at Unpad. However, some library users still use manual catalogs, looking for collections directly to the bookshelf and ask directly to librarians. User perceptions of library access that is easy and efficient by using the identity of the student card if the student does not bring a library card and a fast, precise, effective and efficient information retrieval system becomes the basis of the user using ULiMS. Meanwhile, the lack of user knowledge of ULiMS, the habits and user experience with the previous library system is the cause of some users not using ULiMS. In the case of users who have not used ULiMS at Unpad, it is important to realize that the use of technology is related to student literacy towards technology. Libraries need to provide user education as a basis for users who are not familiar with the new library management system who have the skills to use the new system. System developers must also be able to accommodate the opinions of users to improve the system according to the user's wishes.

Works Cited

- [1] A. Kaushik, "emerging library user characteristics, behaviors and expectations convergence in collection management and technical services: a case study of c.c.s. University, meerut," *international journal of pharmaceutical science invention*, vol. 2, no. 1, pp. 55-67, 2013.
- [2] N. Kurniasih, "kualifikasi pustakawan di era digital," in *semiloka kepustakawanan indonesia 2015: library move on*, Bandung, 2015.
- [3] N. Kurniasih, "libraries rebranding and repositioning: what can Indonesian librarians learn from the popularity of online motorcycle taxi (ojek)?," in *proceedings of international conference on media, mass media at crossroad (mac) conference*, Bandung, 2016.
- [4] Sujito, n. Kurniasih, w. M. Muttaqin, i. N. Sari, a. P. Saleky, p. Tuasikal, y. Talakua, b. M. Laka, a. Niwele and f. Aziz, "applying elms technology based teaching strategy to improve writing competence for efl remedial students across different motivation level," *international journal of engineering & technology*, 7 (3.2), pp. 770-773, 2018.
- [5] J. J. Baroudi, m. H. Olson and b. Ives, "an empirical study of the impact of user involvement on system usage and information satisfaction," *communications of the acm volume 29 number 3*, pp. 232-238, 1986.
- [6] V. Venkatesh and f. D. Davis, "a theoretical extension of the technology acceptance model: four longitudinal field studies," *management science vol.46 no.2*, pp. 186-204, 2000.
- [7] M. Chuttur, "overview of the technology acceptance model: origins," *sprouts: working paper on information systems 9(37)*, pp. 9-37, 2009.
- [8] R. P. Bagozzi, "the legacy of the technology acceptance model and a proposal for a paradigm shift," *journal of the association for information systems volume 8, issue 4, article 7*, pp. 244-254, 2007.
- [9] F. Davis, "perceived usefulness, perceived ease to use, and user acceptance of information technology," *mis quarterly 13(3)*, pp. 319-320, 1989.
- [10] J. Miller and o. Khera, "digital library adoption and the technology acceptance model: across-country analysis," *ejisd 40, 6,* pp. 1-19, 2010.
- [11] S. Alharbi and s. Drew, "using the technology acceptance model in understanding academics' behavioural intention to use learning management systems," *international journal of advanced computer science and applications vol. 5 no.1*, pp. 143-155, 2014.

- [12] R. K. Yin, *case study research design and methods* (5th ed.), thousand oaks, ca: sage, 2014.
- [13] H. Harrison, m. Birks, r. Franklin and j. Mills, "case study research: foundations and methodological orientations," *forum: qualitative social research volume 18, no. 1, art. 19*, pp. [Http://www.qualitative-research.net/index.php/fqs/article/view/2655/4079](http://www.qualitative-research.net/index.php/fqs/article/view/2655/4079), 2017.
- [14] E. Balnaves, "open source library management systems: a multidimensional evaluation," *Australian academic & research libraries*, 39:1, pp. 1-13, 2018.