THE EFFECTIVENESS OF IMPLEMENTING A SLIMS-BASED LIBRARY AUTOMATION SYSTEM IN THE REGIONAL PUBLIC LIBRARY OF TANAH DATAR REGENCY

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Abstract
This research was conducted to obtain information about the effectiveness of using the SLIMS-based library automation system by librarians at the Tanah Datar District Public Library and to identify the obstacles encountered in its use. In this study, descriptive research was combined with a qualitative approach using the SLIMS-based library automation system by librarians at the Tanah Datar District Public Library and to identify the obstacles encountered in its use. In this study, descriptive research was combined with a qualitative approach. Based on research findings, the effectiveness of using the SLIMS-based library automation system at the Tanah Datar District Public Library in various forms of library activities includes the procurement and processing of library materials, fast circulation processes, and librarian satisfaction with the use of the SLIMS-based library automation system. Based on indicators measuring the effectiveness of implementing the SLIMS-based library automation system, such as data security, time, accuracy, relevance, variety of reports, physical comfort, information quality, and information technology, it is proven that, after using the SLIMS-based library automation system, library management and services to users as a whole run more effectively and efficiently.

Abstrak
Penelitian ini dilakukan untuk mendapatkan informasi tentang efektifitas penggunaan sistem otomasi perpustakaan berbasis SLIMS oleh pustakawan pada Perpustakaan Umum Kabupaten Tanah Datar dan mengidentfikasi kendala yang dihadapi dalam pengunaannya. Pada Penelitian ini menggunakan penelitian deskriptif dengan metode pendekatan kualitatif. Berdasarkan temuan penelitian, efektifitas penggunaan sistem otomasi perpustakaan berbasis SLIMS di Perpustakaan Umum Kabupaten Tanah Datar dalam bermacam bentuk kegiatan perpustakaan antara lain pengadaan dan pengolahan bahan pustaka, proses sirkulasi yang cepat, dan kepuasan pustakawan dengan penggunaan sistem otomasi perpustakaan berbasis SLIMS. Berdasarkan indikator pengukuran efektivitas penerapan sistem otomasi perpustakaan berbasis SLIMS seperti keamanan data, waktu, akurasi, relevansi, keragaman laporan, kenyamanan fisik, kualitas informasi, dan teknologi informasi, terbukti setelah menggunakan sistem otomasi perpustakaan berbasis SLIMS, pengelolaan perpustakaan damn pelayanan kepada pemustaka secara keseluruhan berjalan lebih efektif dan efisien.

INTRODUCTION

A public library is a library that is organized to serve the general public, from children to adults, regardless of social status. Examples of public libraries are provincial library agencies in each province, mobile libraries, district/city public libraries, sub-district public libraries, village libraries and so on (Meredith, 2014),(Nurwanto, 2021:26). Regency/city libraries are "regional libraries that function as supervisor libraries, reference libraries, deposit libraries, research libraries and preservation libraries located in districts/cities". (RI National Library, 2019: 6). The use of a library automation system based on SLIMS is one of the library innovations for implementing information and communication technology. The legal basis for libraries based on information and communication technology is contained in the Law of the Republic of Indonesia Number 43 of 2017 concerning Libraries, which states that all types of libraries must utilize information and communication technology in processing library materials and serving their users. (Fatmawati, 2020: 7),(Wulandari, 2019:2).

A public library can be said to be effective if librarians utilize information technology, adequate library facilities and infrastructure in carrying out various activities in the library and this information technology is used as a medium in easing the work of librarians who use computerized automation systems compared to manual ones so as to increase efficiency and effectiveness in the continuity of activities in the library (Davies, 2015). Based on the information the researchers obtained, the Tanah Datar District Public Library has implemented a library automation system based on SLIMS in 2021 until now (2022). The Tanah Datar District Public Library was facilitated by the Kominfo of Tanah Datar District to place a library automation system server based on SLIMS SLIMS which can be accessed via an internet connection. Prior to using the SLIMS-based library automation system, SLIMS of the Tanah Datar District Public Library used a web-based SLIMS-based library automation system developed by the Tanah Datar District Public Library. The Tanah Datar District Public Library has experienced developments in various library activities such as easy-to-find library

materials, clear inventory of library materials and assistance in promoting library services to users. (Indah & Supriadi, interview: 28 June 2022).

Based on interviews with librarian functional staff, information was obtained that the data of the Tanah Datar District Public Library was hacked by someone because the SLIMS SLIMS-based library automation system server was at Kominfo Tanah Datar Regency, soft data is vulnerable to viruses and hackers and HR carelessness in backing up data which caused the missing data to total ± 14 thousand titles to the remaining 6 thousand titles, and the number of library materials had to be entered or updated back into the SLIMS-based library automation system database to make it easier to search for library materials in OPAC. Not only that, the problem that researchers found related to data entry activities carried out by senior librarians was that there were typing errors or letters left behind which made it difficult to find library materials through OPAC. This can happen because they assume they can't use a computer. (Supriadi & Fajar, interview: 16 August 2022).

METHOD

The research method used is descriptive with a qualitative approach. Descriptive research is research that seeks to explain current problem solving based on data, so it also presents data, analyzes it, and interprets it (Narbuko and Achmadi, 2015: 44).

Research Instruments

The main instrument in qualitative research is the researcher himself. The supporting tools in facilitating the data collection process that researchers use are field notes, cellphones, books, pens, and interview guides in the form of a list of questions.

Data source

Primary data is obtained from research informants through a direct interview process. The informant selection technique was carried out by purposive sampling. The informants in this study included the head of the library, the head of the processing section, the service and preservation of library materials, the operator of the SLIMS-based library automation system, and the library staff. Secondary data in this study

were library materials related to effectiveness, library automation systems, SLIMS, and regional public libraries, as well as materials obtained from the field using direct observation and interview methods with HR at the Tanah Datar District Library.

Data collection technique

1. **Observation**

    The type of observation that researchers used in this study was participatory observation. Through participatory observation, researchers participate in activities carried out by librarians and feel the ups and downs of such activities as carrying out bibliographic data entry activities for library materials into databases of automated systems and searching for library material data.

2. **Interview**

    In order to collect data, researchers conduct unstructured interviews. Researchers interviewed librarians who were on duty at the Tanah Datar District Public Library with the help of supporting tools to make it easier to obtain data.

3. **Documentation**

    In this study, the documents used by researchers were documentation guidelines and photos of activities while in the field, such as institutional data and data regarding SLIMS-based library automation system modules.
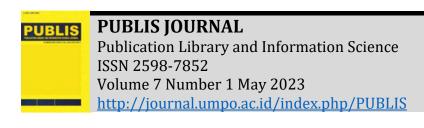
Data analysis technique

1. **Data reduction**

    The researcher reduced the data by grouping and coding the data according to the research sub-focus, which would provide a more concise and clear picture of the effectiveness of using the SLIMS-based library automation system.

2. **Data Presentation**

    The researcher copied the data obtained from the interviews in the form of field notes or voice recordings. The researcher recorded and re-analyzed the field notes, listened to the audio recordings again, and rewrote the results of the interviews in the form of easy-to-understand narrative text so that they could draw conclusions.

3. Conclusion or verification

After all the data was collected and presented in the form of narrative text, the researcher presented the final results of the study by drawing conclusions about the effectiveness of using the SLIMS-based library automation system.

Techniques for Assurance of Data Validity

1. Triangulation of Sources

To test the credibility of the data regarding the effectiveness of using the SLIMS-based library automation system, the researchers interviewed the three research informants using an interview guide by asking several different questions according to their ability to answer questions, which were then signed by the research informant, affixed with an agency stamp, and evidenced by means of documentation when conducting the interviews.
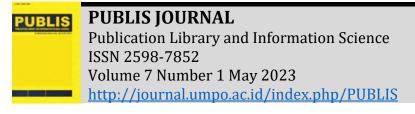
2. Triangulation technique or method

To test the credibility of the data regarding the effectiveness of using the SLIMS-based library automation system, the method used by researchers to check the data obtained from the three research informants was through different techniques, including observation, interview, and documentation techniques.

3. Time Triangulation

To test the credibility of the data regarding the effectiveness of using the SLIMS-based library automation system, the method used by researchers to check data from the three research informants was at different times, such as in the morning, afternoon, or evening, or on different days.

RESULT

1. The effectiveness of implementing the SLIMS-based library automation system.

a. Indicators of effectiveness

According to Wower and Widhiyani's Measuring the Effectiveness of the Library Automation System, indicators for measuring the effectiveness of the library automation system are:
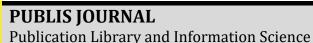
1) **Data Protection**

Based on the results of the interview with Supriadi, he said that if there was a disturbance in the system when the activity process was taking place, the action taken by the librarian was to back up data within a period of one (1) month, namely one (1) time a month (backup data automatically because the server is in Kominfo, Tanah Datar Regency). There are no specific guidelines for backing up data. On an SLIMS-based library automation system, the steps for backing up data are as follows: select the administration menu, general settings, and several sub-menus will appear; select data backup; click database backup; and wait 5-10 minutes for the data backup results (depending on the amount of data to be backed up). backed up). Data backup is divided into two (2) types, namely automatic and manual.

Automatic data backup using the SLIMS-based library automation system itself is online and can be done anywhere using any computer. Meanwhile, manually backing up data is done without using a library automation system based on SLIMS. When installing the SLIMS-based library automation system by copying and pasting the folder, MySQL data is retrieved and stored on the hard drive. In the SLIMS-based library automation system, if there is already a lot of data to be backed up, the system will refuse to do so automatically and must back up the data on the server directly. In data backup settings, it consists of database backups and backup upload files. Backup and upload files mean that every menu contained in the SLIMS-based library automation system will be updated automatically, and if at any time the server is down, the last update can be retrieved from the SLIMS-based library automation system to be restored.

2) **Time**:

"Based on the finding that the speed in carrying out data entry by the librarian is not determined by the time and the large number of library materials that are entered can be seen from the speed of the librarian in carrying out data entry, processing the results of the activities carried out," The activity of searching for data,

presenting data, serving information, and shutting down the system does not take long if the network is good. (Supriadi, interview: September 22, 2022).

3) Thoroughness

"Based on the findings that the system is able to process data carefully and also that the data displayed is timely and free of errors," After the librarian has finished entering data into the SLIMS-based library automation system database, there is one (1) librarian who checks or corrects errors in data entry so that library materials can later be found by users in the OPAC when searching for library materials. (Supriadi, interview: September 22, 2022).
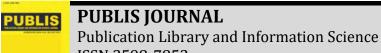
4) Relevance

Relevance is measured by looking at the system's relevance to data analysis, the presentation of processed data, storage, and the level of system relevance to the needs of users. Qashdina and Evayani (2018): 105. "Based on the findings that the data stored and presented by the system is in accordance with the needs of librarians and users and can meet their needs, such as annual bibliography material list report data for librarians contained in the SLIMS-based library automation system (accession list) and library material data for users, and so on," (Supriadi, interview: September 22, 2022).

5) Variations in Report or Output

"Variations of reports based on the findings that the system is able to present any information needed by librarians and users in full in the SLIMS-based library automation system" (Supriadi, interview: September 22, 2022)

6) Physical Comfort

The level of system capability is related to hardware capabilities and the environment that supports the process of implementing the system for both computer equipment and user convenience. Qashdina and Evayani (2018): 105. "Judging from the components contained in the system based on the finding that the facilities and infrastructure in the system already support the circulation process, it also supports the process of running the system, such as starting from turning on the computer,

operating the computer, and presenting data. This does not hinder the activities of librarians and users when using hardware and software, so that they can feel comfortable using library automation system components." (Supriadi, interview: September 22, 2022).

7) Information Quality

"Based on the findings that the system is able to produce information that suits the needs of librarians and users, The information generated by the system is easily understood and read by librarians and users. (Supriadi, interview: September 22, 2022).

8) Information Technology

"Viewed from information technology based on the findings that the components of the automation system support the system in producing information" such as computer networks, hardware and software. Examples of hardware are mice, keyboards, scanners, printers, LCD projectors, CPUs, cables, computers and so on. An example of software is a library automation system based on SLIMS data processing. (Supriadi, interview: 22 September 2022)

b. Use of a SLIMS-based automation system

1. Procurement of library materials Procurement of library materials at the Tanah Datar District Public Library is carried out directly by purchasing library materials through bookstores both online and offline, this is due to the unavailability of a special module for procurement of library materials in the SLIMS-based library automation system but the library material list proposal form by the user contained in the SLIMS-based library automation system, namely on the OPAC menu. Proposal of library materials by users is also done manually because not all users understand using OPAC.

2. Processing of library materials Processing of library materials at the Tanah Datar District Public Library is done manually using processing tools. While processing library materials using the SLIMS-based library automation system is done by entering bibliographic data of library materials into the SLIMS-based library automation system

database with the help of facilities and infrastructure that mutually support the work of the system.

3. Circulation Services Service activities for users at the Tanah Datar District Public Library are more dominant using the manual method due to network disturbances. If the network is not good, borrowing and returning library materials is done manually using Microsoft Excel by typing the name, title of the library material and the date of returning the library material. With the SLIMS-based library automation system, all activities in the library can be completed quickly and make the work of librarians easier.

The use of the SLIMS-based library automation system for data entry activities and the process of circulation activities is very easy to use because the available features are simpler and easier to understand, self-study and access the desired information or menu quickly and can be used and also the information produced is accurate.
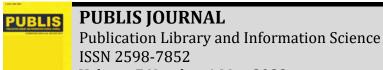
c. The ability of librarians to use the SLIMS-based library automation system

The capabilities of librarians at the Tanah Datar District Public Library in using the SLIMS-based library automation system are that librarians are capable of cataloging or data entry, able to communicate well with fellow co-workers and users, able to serve users well, able to operate computers, able to operate SLIMS-based library automation system, capable of working with HR and able to solve problems that arise. Meanwhile, the specific criteria that librarians must have in using the SLIMS-based library automation system are having information technology skills, namely being able to operate computers from turning on to producing output, being able to turn off computers, being able to operate SLIMS-based library automation systems, being able to solve problems that arise. related to the SLIMS-based library automation system, mastering library and information science and so on.

2. Obstacles faced by librarians in using the SLIMS-based library automation system

The constraints faced by librarians at the Tanah Datar District Public Library in using the SLIMS-based library automation system are:

a. Network

Networks at the Tanah Datar District Public Library often have problems that hinder data entry activities and make it difficult to open a SLIMS-based library automation system in providing library services. The network quota at the Tanah Datar District Public Library is 30 Mbps.

b. Lack of accuracy in data entry

At the Tanah Datar District Public Library, a senior librarian who entered bibliographic data on library materials into the SLIMS-based library automation system database had a typo error resulting in duplicate data being re-entered by intern students which resulted in users having difficulty finding the library materials. However, the input data cannot be read by the SLIMS system. After tracing it turned out that there were several errors that had been made such as the amount of data input exceeding the limit provided, there were empty fields, and the format provided was wrong so that when inputting data the librarian was required to be careful.

c. Lack of librarian training

At the Tanah Datar District Public Library, those who receive training related to the SLIMS-based library automation system are specifically operators of the SLIMS-based library automation system, and librarians only receive the knowledge that has been obtained by these operators.

d. Lack of HR

Lack of human resources in the processing section if the number of library materials to be processed is large

CONCLUSION

Based on the results of the study, the conclusions drawn from this study are; The effectiveness of using the SLIMS-based library automation system at the Tanah Datar District Public Library in various activities such as procurement, processing, and circulation can facilitate the work of librarians, and librarians are satisfied with the use of the SLIMS-based library automation system. Referring to indicators measuring the effectiveness of the library automation system such as data security, time, accuracy, relevance, variety of reports, physical comfort, information quality, and information technology, it was found that overall library management runs more effectively and efficiently after using the SLIMS-based library automation system. This can be seen from the activities of librarians, which can facilitate librarian performance to become

faster because the SLIMS-based library automation system is very easy to understand, use, and learn on your own. The obstacles faced by librarians in using the SLIMS-based library automation system at the Tanah Datar District Public Library are that the internet network is often problematic, there is a lack of accuracy in data entry, there is a lack of training to improve librarian competence, and there is a lack of human resources in processing.

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