ICT Based School Library Management in Secondary School: A Case Study

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ABSTRACT

Library management in schools in the education era in the 21st century must serve with effective. Need for quick library consumer service, accuracy in storing and searching for books, and efficiency in their management, were to make many library managements in schools have switched to digital libraries. Both those that can be accessed via a wide internet network or not. This study is a qualitative case study on the design of an online library at a school in Indonesia. We chose the qualitative study approach to describe how the library organizers and school customers responded to the current condition of the library, and the future internet-based library design. Research subjects comprised principals, school library managers, librarians, teachers, and students in a junior high school. We carried data collection out through structured interviews with respondents, participant observation, and documentation study. We carried the research data analysis out following the case study qualitative data analysis procedure. The results of the study show that implementing conventional libraries by schools poses many obstacles for library administrators, and library customers, teachers, and students. Planning for organizing an online-based library has acceptable by school library administrators, teachers, and also students in schools. This results study be a consideration for plans for developing library management in schools.

Keywords: School Library Management, Online Library, School Management.

Introduction

The development of information and communication technology has penetrated all aspects of life, including the library sector. This has changed the library management system implemented so that the infrastructure must support it and improving the quality of human resources for library managers so that they can use technology (Egunjobi, R. A., & Awoyemi, R. A., 2012).

Libraries are one of the important components in education (Rubin, R. E., 2017; Strong, C., 2013). School Libraries function as providers of knowledge books as teaching materials for teachers and reading sources for students. Besides, the library also has additional functions; (1) developing students interests, abilities, and reading habits in particular and making use of written culture in various sectors of life; (2) developing students' ability to find and process, and use information; (3) to educate the students to use library materials; and (4) to be groundwork towards an independent learning process for students (Hobbs, K., & Klare, D., 2016; Thomas, N. P., Crow, S. R., Henning, J. A., & Donham, J., 2020).

The application of technology and communication in libraries can function effectively, including having an impact on the ease of access to library sources for customers, faster, and more efficiently (Chang, CC, 2013; Malathy, S., & Almagrabi, A O., Shamim, A., Anwar, F., & Bashir, AK, 2020). Customers at any time and anywhere, without having to come to the library, but only with technological devices can access library reference information, including book searches, year of publication, authors and publishers, number of books, library membership data, the process of borrowing and returning, a system of fines for members who were late returning books and others. This is certainly easier in the current era of information technology. Studies have shown that technology-based libraries, especially connected via the internet, are more popular with millennial (Mi, J., & Nesta, F., 2006).

Indonesia is a developing country that has high users of information communication technology (Andayani, U., 2001). These users are spread even from various ages. It is not uncommon for the misuse of information communication technology, especially for underage people who do not have sufficient awareness and understanding of responsibilities in using the internet. It takes a systematic effort so that the use of this technology provides benefits. One of them is the use of the

internet for library access (Kuhlthau, C. C., 2010; Merga, M., 2020).

In Indonesia, online-based libraries are not yet widely available in all educational institutions, schools, or universities (Subrata, G., & Kom, S., 2009). Need support by national policies governing the management and utilization of information and communication technology in library education infrastructure. Human resources who control this technology are still very limited, generally only in big cities (Kurnianingsih, I., Rosini, R., & Ismayati, N., 2017). This limited human resource will of course hinder efforts to digitize the library.

The idea of applying information technology more effectively is starting to become a converging necessity. The use of information technology in the library sector has resulted in quite a fundamental change in the management system and services provided to readers. The implementation of automation systems in the library sector has an impact not only on the speed, accuracy, and accuracy of the information that can be served but also impacts on the efforts librarians must make in mastering this information technology so that it can be optimally utilized. Studies have noted that internet-based library automation systems can support the optimization of educational attainments in certain education units (Thorpe, A., Lukes, R., Bever, DJ, & He, Y., 2016; Lemaitre, T., Shi, Q., & Thanki, S, 2018).

Three important components that must be fulfilled by library managers who will implement an automation system in their information services were stated by Korfhage and his colleagues (Korfhage, RR, Bhat, UN, & Nance, R. E, 1972), namely the presence of users, founders. Founders and servers whose handling is carried out by information professionals who control the system to provide services to users. When computerized facilities were not part of the library, all work was carried out manually. Limited personnel, collection space, information services are major problems faced by library managers to provide satisfactory services to their users. Nowadays, after computerized facilities have penetrated the library, there have been drastic changes and developments that have made libraries to be taken into account in the fields of education, economy, politics, arts, and culture.

There are various problems faced by libraries in optimally implementing an automation system, including those related to infrastructure or infrastructure, policies, management systems, and the most important thing is human resources who support the implementation of an online library. Libraries as one of the information provider institutions will not be able to play their role properly if they are not supported by resources capable of managing information that can be accessed quickly and satisfactorily to the public (Subrata, G., & Arafah, W., 2019). The sophistication of a new information technology system can be considered positive if it provides benefits to its users, and this sophisticated facility will not be of use if the human resources who handle it are unable to operate it optimally. If this is the case, proper education is needed to increase the knowledge of human resources in utilizing information technology and at the same time improve the quality of work it produces. This context is closely related to the effectiveness of library management in providing information services, one of which can be achieved through efforts to organize library services through a network system (information technology-based) that can be accessed by users, especially students. Related to that, this study aims to describe how schools implement library management, and how they use information and communication technology in libraries in schools.

Method

This research uses a qualitative approach and case study method, which is a study that aims to describe a condition that is happening in the real world. The research procedure adopted the case study research procedure by Yin (Yin, R. K., 2012) which includes (1) design the case study protocol; (2) Conduct the case study; (3) Analyze case study evidence: and (4) Develop conclusions, recommendations, and implications based on the evidence. This research was conducted at SMPN 199 which is in the Cempaka Baru, Kemayoran, Central of Jakarta, Indonesia. It is a strategic area in Indonesia and has the potential to develop its library better than other regions. The subjects of this study included

principals, teachers, librarians, student representatives as well as examinations of school documents related to library management.

The data collection was carried out for two months from October to December 2019. The primary data collection technique was structured interviews. The interview conducted by using guidelines related to library management and the use of technology in library management. The other procedure of data gathering use in this study were observation approach, and documentation studies. Observations were made with a participatory observation approach, and documentation studies were carried out by collecting documents related to library management in schools. This documentation study is conducted to support the results of observations and interviews so that the research has high credibility. The qualitative data analysis technique begins with grouping data based on primary data sources and secondary data. Primary data sources consist of core data from the principal, teacher-

librarian, and students which are obtained directly through interviews, observations, and form filling out questionnaires. Secondary data sources come from supporting documents and are taken directly through documentation relating to the object and focus of the study. Data obtained from the field is processed and reduced so that it becomes meaningful information and is used as a guide for concluding.

Result and Discussion

Current Condition of School Library

The results of interviews from the school related to library activities are as follows; The library at SMPN 119 Central Jakarta is not yet online-based or connected to an internet network. But already using computers as data storage. So, it can be said that it is a semi-conventional library. Library management at this school is carried out using a computer that is not connected to the internet, as shown in Figure 1.
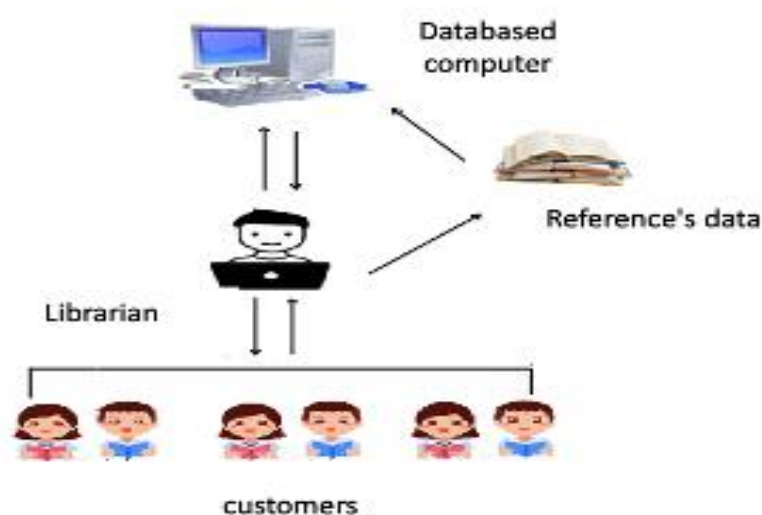

Figure 1. Offline Library System

Fig 1 shown the library management with an offline computerized system. The management that is carried out includes the management of the number of books, existing facilities, and infrastructure that is sufficient to support the needs of students.

Structurally, the management as a supervisor is the principal who oversees the head of the library, reader services, and technical services. The reader

service section includes book lending and borrowing services, library material processing, non-book service activities, all library material management is carried out by skilled and friendly librarians in carrying out its duties. among them have attended training for librarians, so that the division of tasks among librarians is according to their abilities. The principal fosters and supervises the activities carried out by occasionally visiting the

library and receiving evaluation reports on library work programs. The constraints faced are the lack of manpower, there are only 3 Librarians, 2 of whom share their time with teaching so that the librarian's work cannot work effectively.

Student and teacher responses to library services currently available are generally good. The teachers and students stated that their needs for books and references as learning materials had been met. However, they stated that some of the obstacles experienced in obtaining library services at this school include: (1) it took a long time to find the books that you wanted to borrow from the library, and (2) the service was not flexible, requiring special time to come to the school library for getting services, borrow or return books. The students added their responses about how difficulty getting library services when they needed immediate reference when they were out of school or did not have time to come to the library. Often students experience delays in returning and are subject to fines when they do not have the opportunity to come to the library to return the books they borrowed.

Future Online library Model

The design of the library management model is an activation process for book inventory, book classification, catalog making, book arrangement, room arrangement, and services to visitors so that visitors who come can be served properly and comfortably. This school has a plan to organize an online library. The school principal said that shortly, this online library service would soon be implemented. The Information Technology-based Library Management Model Development Plan that this school already has is as shown in Figure 2.

Based on fig 2, the library serves procedures designed in this school include; (1) librarian doing inputs data via computer server, the intended data includes visitor data, membership data, book data, articles/journals, scientific papers, borrowing system data, book returns; (2) data is stored on a data storage server, the server is connected to the internet so that the data can be widely accessed with the permission of the library manager; (3) visitors or members who want to search for books can access them by browsing using the user-name and password that have been set. Those who have successfully accessed books on the internet can choose the desired book, for example, the title, essay, and publisher; (4) Members who want to borrow books from the library after browsing get books and then report to the library department and the library will agree to be borrowed.
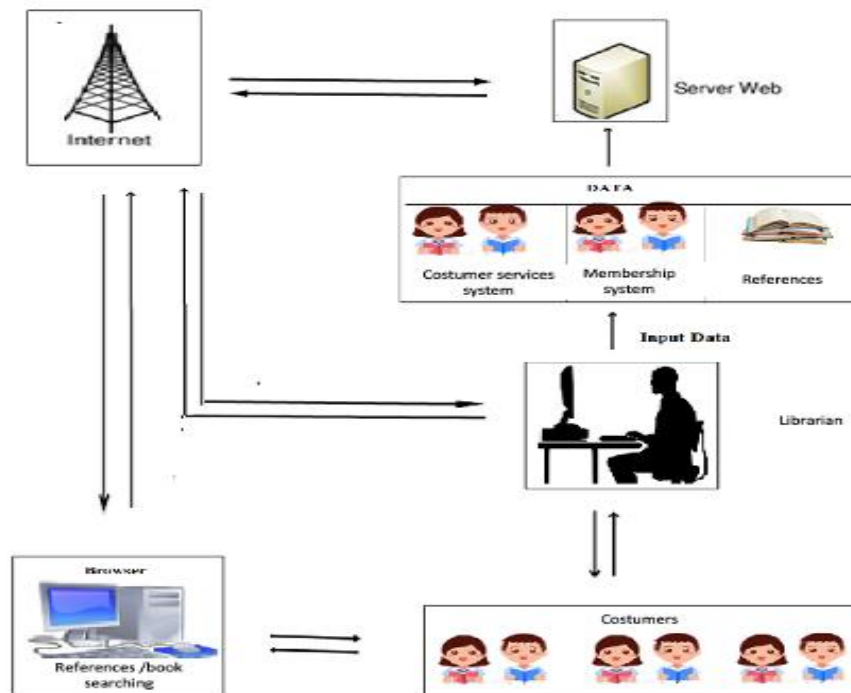
Figure 2. Internet Based Library Management

The principal and head of the library at this school mentioned that the advantages offered from the application of the online-based library model include (1) Data storage on the server computer can be connected to the internet network. The data storage computer (server) is connected to the internet so that all data can be stored safely on the internet both visitor data, book data and other reading, borrower data, and existing facilities in the library, this data can be accessed by librarians and library visitors with a password or password. (2) Data input for books and other readings on the computer is faster and more accurate. The data input is carried out by the librarian. As for the books that are inputted, of course, all the books in the library so that the stored data can be obtained quickly and accurately. (3) Library staff easier and faster in providing services. Reading services in the library room, as well as those going to borrow, are faster, making notes, borrowing book data in addition to the main book, borrowing, returning, and making reports can be made more quickly and accurately. Visitors comply with the regulations in force in the library regarding the use of information technology. (4) Registration Process to Become an Library Member. Member data is input in to the computer server by administrator, and then sent to the internet. Prospective members can register themselves online by meeting the applicable

requirements. Become a member. Those who can become members are all students, teachers, a staff of education personnel, and teachers. Member data is recorded safely and accurately on the server, if the officer will make a report to the school principal about the progress of member activities, just print it. If you are already a member, when you visit, you are required to comply with the rules in force in the library related to the use of an integrated system with the internet. (5) Book Return Procedure. The data of all library members are recorded on the library computer server so that librarians can access it quickly. Members who will borrow and return books can be displayed quickly.

The principal and principal of the school library at this school have designed job descriptions for each unit involved in online library management. With the respective duties and roles that are designed, it is expected that the performance optimization of internet-based library managers will be achieved.

The results of filling out questionnaires to teachers and students about their opinions regarding the plan to organize an online-based library show that teachers and students at this junior high school welcomed the design. More specifically, they expressed their hope that the implementation of online libraries could be effective, which had an

impact on teacher productivity in organizing learning, and also students could more easily access the books they needed to participate in learning activities.

The development of school libraries varies from library to library also from one country to another country. The level of development of online-based school libraries for many years in Indonesia is still low (Widayanti, Y., 2015), in school libraries. This study confirms that online-based libraries are an innovation in school services and libraries that are eagerly awaited by students and teachers. This study supports the results of previous studies (Arua & Chinaka, 2011; Omera, 2013) interviewed showed respondents did not ignore the importance of the school library but that they visited the library "occasionally" because the school library could not meet their needs. This finding also confirms by study of Nwalo (Nwalo, K.I.N., 2003) that library development is measured by how well the library meets the needs of its users, relative to the goals and objectives of the library. It is because of the irregular use of the library that it can cause corporate differences and mistakes because it does not involve students during the free period. Besides, the respondent complained about the opening/closing hours of most library schools in Indonesia that are tied to school hours, which causes them to assess the current library services as low. Several studies have shown that the effectiveness of library services contributes to improving student achievement (Adeyemi, T.O., 2010). The availability of adequate and effective library services is closely related to the achievement of educational goals. Thus, the provision of the library facilities will enable teaching and learning to struggle. There is a need to increase library resources and services for the development to be taken place. School libraries should be given priority in finance, and they should enforce the wise management of funds. Also, the government must ensure the implementation of the National Education Policy, ensure that all schools have libraries in their respective institutions. In this era of information explosion, for the imminent development of any school library, there is an absolute need for ICT integration into library operations. Integrating ICT in libraries fills gaps, which conventional libraries cannot do.

Conclusion

The results of this study indicate that the application of the internet in library operations is a school necessity. The results study show that library management is semi-conventional (offline), although computerized has many weaknesses, and presents obstacles for customers, teachers, and students in obtaining services. Internet-based library operations are needed to provide higher quality library services. Internet-based library development is needed, especially in a secondary school setting. Many advantages are obtained from internet-based libraries compared to conventional libraries. The existing facilities are quite supportive in serving the needs of students. There are book lending and borrowing services, non-book service activities, all library material management is carried out by friendly librarians in carrying out their duties. The results of this study are useful as input for research resulting in the development of school library.

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