

ACCEPTANCE OF LIBRARY TECHNOLOGY APPLICATIONS AT SMA/MA IN BANDACEH AND ACEH BESAR WITH THE TECHNOLOGY ACCEPTANCE MODEL (TAM)

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Abstract

The digital transformation of school libraries has become an essential strategy for improving educational quality and strengthening students' information literacy. This study examines the acceptance and optimization of three library automation applications—SchiLS, SLiMS, and INLISLite—in senior high schools and Islamic senior high schools (SMA/MA) in Banda Aceh and Aceh Besar using the Technology Acceptance Model (TAM). A mixed-methods approach was employed by integrating quantitative and qualitative data collected through observations, questionnaires, and interviews involving 46 librarians selected using proportionate stratified random sampling. Quantitative data were analyzed using SPSS and evaluated based on information system effectiveness indicators, while qualitative data were analyzed descriptively. The findings reveal that the three library applications significantly enhance librarians' performance in managing library services, improving system usability, information quality, and operational efficiency. SchiLS demonstrated the highest level of user acceptance across most evaluation indicators, while SLiMS and INLISLite also showed positive contributions to library management. Despite these benefits, several challenges remain, including the limited availability of qualified library personnel, insufficient professional development opportunities, inadequate institutional support, and limited digital infrastructure, particularly internet connectivity. The study concludes that successful implementation of library automation systems depends not only on technological quality but also on organizational commitment, competent human resources, and sustainable policy support. Strengthening these factors is essential for maximizing digital library services and enhancing educational outcomes in secondary schools.

Keywords: Technology Acceptance Model (TAM), Library Automation, SchiLS, SLiMS, INLISLite, School Library, and Digital Transformation.

INTRODUCTION

As we all know, the industry has started to touch the virtual world that connects humans, machines and data. We can check the artificial intelligence on our respective cellphones, there are various applications such as Google Assistant from Google, or Apple's Siri application, and Samsung's Bixby which is a sophisticated and smart virtual assistant in responding to user commands. Even in some devices that have Internet of Things (IoT) capabilities, technology is able to connect directly between humans and machines which of course increase the maximum role of technology for life. Information and Communication Technology (ICT) has penetrated into various fields of life in the world community, even along with the development of these technologies, the global society also changes. Ready or not ready, we are currently in a formidable technological development, so that the community is demanded to also transform dynamically to keep up with these changes. If not, it is left behind. Along with technological advances, many management systems in the world have switched to robotic applications, with the reason that they can support the 21st Century management process so that it can be done more effectively and efficiently. These applications were developed by various Information Technology experts, thus giving birth to

various software to be able to carry out various activities in all fields, from economics, education, to libraries. Libraries as one of the places that accelerate the acceleration of knowledge transfer, in the 21st century it has also been transformed by using computers and new management applications called automated management or library automation. The existence of a management application model developed by technology and information experts in the field of libraries is in order to keep pace with the development of science, technology, culture and various other aspects in the Era 4.0.

With library automation, the function of libraries as institutions that provide sources of information for educational activities will be better. The library integration system, or sometimes referred to as a library automation system, which in foreign terms (Integrated Library System) is a unit consisting of parts that are interrelated with one another to work together to achieve the main goals of an institution or organization, this is the purpose of the library itself.

The presence of library automation or digital libraries plays an important role in creating many innovations in library management. Library automation system activities such as reproduction, processing, storage, and dissemination of information to users can now be used with various application systems that have been created by various experts, such as: SLiMS, INLISLite, SchiLS and various other applications. Such a system is also expected to facilitate library management in managing, accessing, and obtaining the required information sources, as well as having a function as a means of information technology-based library data management. Efforts to implement library applications in the process of library activities and services are a must for any existing library today, because without the new management system application-based library automation, libraries will be left behind. For this reason, in the 21st century it is highly demanded for librarians or library managers to respond quickly, or be responsive to user needs for accurate, relevant and timely information in the field of libraries in accordance with library management standards in the 21st century. Because, educating the nation's life is part of the function of the library.

So without being managed by professionals, namely librarians who are competent and served with friendly, polite and pleasant service and are supported by adequate infrastructure or library facilities in accordance with the times in the 21st century. This has an impact on the maximum use of information resources owned by the library. not as expected. For this reason, it is also very important for educational institutions to be able to manage their school libraries with automated library management in order to achieve the Quality of Education.

The government has also issued various policies to respond to these technological developments in Presidential Instruction No. 3 of 2003 concerning National Policies and Strategies. E-Government development is a strategic policy for the application of communication and information technology in government; this is of course in line with Law No. 20 of 2003. concerning the National Education System, and Law Number 43 of 2007 concerning Libraries in article 15 paragraph 2, namely the processing of library collections is carried out by paying attention to developments in information and communication technology. With these various policies, educational institutions are currently also required to implement management management for school libraries to support superior schools in Indonesia, and be competitive through the provision of good information sources with a digital automated system through access to information provided through the application, libraries namely SLiMS, INLISLite, SchiLS.

The existence of such an application is none other than to support the school library so that it can adapt to the times. This is because the school library is an integral part of the school program to support the teaching and learning process in schools, is in the school environment and is fully managed by the school concerned.

Therefore, through an automation system based on SLiMS, INLISLite, and SchiLS, it is expected that they are fully able to provide excellent service to users. Libraries in schools today absolutely must have the SLiMS, INLISLite, SchiLS library automation system, so that every educator can access the information available in the library properly. Of the many various applications, of course each application provided has advantages and disadvantages in its application in educational institutions. However, these applications are none other than to accelerate the work of librarians in managing libraries. Through this study, the researcher also wants to examine how to optimize the use of the SchiLS and INLISLite applications in improving the performance of librarians in school libraries, especially in Madrasah Aliyah in Banda Aceh City. With the hope, through this study, accurate information will be obtained, what applications are more effectively used optimally in Madrasah Aliyah to support the education process and the quality of education. So that literacy and student abilities can increase, and the ability to develop student knowledge and potential can be achieved as it should be.

RESEARCH METHOD

This research is to describe complex phenomena and is able to analyze the results of optimizing an application. This research was conducted at Madrasah Aliyah in the cities of Banda Aceh and Aceh Besar with the time required in the process of conducting this research until completion being approximately 6 months, starting from May to October 2022. The activities carried out are as follows: research preparation, data collection, data analysis, and reporting. The data collection technique in this study used 3 stages, namely: 1) observation; 2) questionnaire; 3) interview.

The population of this study was all members of the SMA/MA Library in the cities of Banda Aceh and Aceh Besar who had the application, while the research sample was some members of the Madrasah Aliyah Library who had used the application. The sampling method used the Slovin formula, while the sampling technique used proportioned stratified random sampling, this technique is used if the population members are not homogeneous and are stratified proportionally. While data processing uses 2 (two) models: First Quantitative with which has been processed using SPSS then analyzed according to the information system effectiveness evaluation model according to Ron Weber. This analysis aims to determine the extent to which the use of the three applications, SchiLS and INLISLite in school/madrasah libraries is effective; and Second Qualitative, the stages that the author does in carrying out qualitative data processing and analysis are: first, the researcher records and makes an abstraction of all data obtained in the field. Then the author organizes the data by sorting or selecting data that is relevant to the research objectives. Furthermore, the author interprets the data by analyzing and presenting the data in the form of descriptive sentences and finally the author verifies the data by drawing conclusions and compiling them into a research report.

RESULT AND ANALYSIS

Research on optimizing the use of applications to improve librarian performance in libraries is measured by Weber's theory which includes evaluation of system quality, information quality, perceived usefulness, perceived ease of use, computer self-efficacy, information system use, individual impact, information systems satisfaction, organizational impact. The use of SLiMS and Inlislite applications in Madrasah Aliyah and SMA in Banda Aceh and Aceh Besar to support learning based on research results, it was found that the average use of the application was more than 1 (one) year. This can be seen based on the results below:

No	Aplikasi	Indikator Penilaian	Tanggapan Responden				N	
			Ya		Tidak			
			F	%	F	%	F	%
1	SchILS	Kualitas Sistem	46	100	0	0	46	100
2		Kualitas Informasi	45	97.8	1	2.2	46	100
3		Kegunaan Sistem yang dirasakan	39	84.8	7	15.2	46	100
4		Kemampuan Menggunakan Komputer	43	93.5	3	6.5	46	100
5		Penggunaan Sistem Infor masi	44	95.7	2	4.3	46	100
6		Dampak Individu	42	91.3	4	8,7	46	100
7		Kepuasan Sistem Informasi	42	91.3	4	8,7	46	100
8		Dampak terhadap Organisasi	42	91.3	4	8,7	46	100
1	INLiSLite	Kualitas Sistem	31	67.4	15	32.6	46	100
2		Kualitas Informasi	30	65.2	16	34.8	46	100
3		Kegunaan Sistem yang dirasakan	37	80.4	9	19.6	46	100
4		Kemampuan Menggunakan Komputer	37	80.4	9	19.6	46	100
5		Penggunaan Sistem Informasi	33	71.7	13	28.3	46	100
6		Dampak Individu	35	76.1	11	23.9	46	100
7		Kepuasan Sistem Informasi	32	69.6	14	30.4	46	100
8		Dampak terhadap Organisasi	34	73.9	12	26.1	46	100
1	SLiMS	Kualitas Sistem	31	67.4	15	32.6	46	100
2		Kualitas Informasi	37	80.4	9	19.6	46	100
3		Kegunaan Sistem yang dirasakan	37	80.4	9	19.6	46	100
4		Kemampuan Menggunakan Komputer	30	65.2	16	34.8	46	100
5		Penggunaan Sistem Informasi	33	71.7	13	28.3	46	100
6		Dampak Individu	35	76.1	11	23.9	46	100
7		Kepuasan Sistem Informasi	32	69.6	14	30.4	46	100
8		Dampak terhadap Organisasi	34	73.9	12	26.1	46	100

So, based on the graph above, the researcher can conclude that library applications, both Schill, SLiMS, and Inislate are very supportive of the student learning process in Madrasah/Schools. In addition, the application of library applications can also be useful for improving the quality of work of school/madrasah librarians in carrying out modern and fast processing of reading materials. Based on research conducted by the Research Team, regarding the various features of existing applications, there are no obstacles in the slightest specifically regarding system problems or application disturbances. Thus, the various applications that have been developed are certainly very supportive in carrying out the daily tasks of the librarian.

Based on the results of the study on the features available in the 3 applications, it was also found that most respondents felt helped by the features provided by each application. These features can facilitate the work of librarians in managing libraries automatically. Respondents who agreed that the features available in each application helped their work were 91.3% or equivalent to 42 respondents from a total of 46 respondents.

The inhibiting factors for using the Schills, SLiMS and Inislite applications to support the learning process in Madrasah Aliyah Banda Aceh and Aceh Besar are as follows: First. Human Resources in the Field of Libraries. The results showed that almost all Madrasah/Secondary School libraries in Aceh Besar and Banda Aceh have not met Human Resources (HR) who are able to optimally apply application systems, especially library applications to manage automation-based madrasa/school libraries. Supposedly, with a graduate degree in Library Science at the Faculty of Adab and Humanities, Ar- Raniry State Islamic University, Banda Aceh. Madrasahs have been able to recruit library staff who are actually graduates of library and information science to ensure good management of madrasa/school libraries, and at the same time to implement library development with digital automation systems that can really be carried out properly.

Second. Human Resources Development for Science/Career Development. So far, science/career development programs are lacking in human resources in madrasahs. Therefore, the Head of Madrasah must program the knowledge and career development of his/her subordinates in the Madrasah in the form of seminars, workshops, training, workshops and further studies. This is to gain new knowledge and new knowledge in supporting the development of better madrasahs;

Third. Provision and Sustainable Development of Digital Library Automation System Applications as support for the development of better library management, especially through the provision of hardware and software devices that are now available at affordable prices for use in madrasa/school library automation systems. There are several pathways to a madrasa library automation system. Known for example the path of developing the system itself (inhouse generation), buying a ready-made system for use on equipment that is held separately (off the shelf) and purchasing a complete system (hardware and software) directly for use (turnkey system).

Therefore, in providing the application, the process of providing the system is also carried out by considering a) The system must be cheap, so that it is affordable by the limited budget that is generally owned by madrasahs; 2) The system must be easy to use by officers and also by students/students and classroom teachers, either with the guidance of the librarian teacher or independently by the students/students; 3) The system must be easily maintained by human resources and equipment owned by the school; 4) The system must have modules and features in accordance with the main needs of students, teachers and librarian; and 5) The system must be able to be used continuously so that there is no need to change the system every time;

Fourth. Provision of adequate internet facilities in a sustainable manner. So far, madrasahs only provide limited internet facilities. For this reason, in order to support the

madrasa automation system. For this reason, the Head of Madrasah needs to support access to these learning media by providing adequate internet facilities every month/year by increasing internet capacity as needed. Because, without adequate facilities, the portal will not be accessible. This is because the application portal that has been provided is one of the main supports for student literacy in the learning process, which is prepared for teachers as the main reference source to improve student competitiveness.

CONCLUSION

Based on the results of the study, it can be concluded that library applications, both Schill, SLiMS, and Inislate are very supportive of the student learning process in Madrasah/Schools. In addition, the application of library applications can also be useful for improving the quality of work of school/madrasah librarians in carrying out modern and fast processing of reading materials.

There are several obstacles in the application of libraries to improve literacy of madrasa students through the use of digital automation systems. These obstacles certainly arise from the madrasahs themselves which have not yet incorporated them into the madrasah development program into the strategic plan. So that the impact on library management is still bad and not well organized. Then, on the other hand, coupled with the unavailability of Human Resources (HR) in the field of libraries, namely Library Science graduates to manage madrasa libraries, as well as madrasa policies for sustainable management in the form of madrasa priority programs.

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