

PERSPEKTIF



## JOURNAL OF SOCIAL AND LIBRARY SCIENCE

# ANALYSIS OF STUDENT ACCEPTANCE OF THE INSTITUTIONAL REPOSITORY OF THE STATE ISLAMIC UNIVERSITY OF NORTH SUMATERA USING THE TECHNOLOGY ACCEPTANCE MODEL (TAM) APPROACH

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ABSTRACT
This research examines the acceptance of the North
Sumatra State Islamic University Library Repository
system by students of the 2017 Stambuk Library Science
Study Program. The aim of the research is to measure the
level of system acceptance from perceived usefulness
(PU), perceived ease (PeoU), attitude towards use (AtU),

E-ISSN: xxxx-xxxx

#### How to cite:

Siregar & Devianty. (2023). " Analysis Of Student Acceptance Of The Institutional Repository Of The State Islamic University Of North Sumatera Using The Technology Acceptance Model (TAM) Approach" Perspektif: Journal of Education and Library Science, vol. 1, no. 1, pp. 9-16, 2023.

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**Keywords:** Institutional repository, institutional repository acceptance, technology acceptance model

interest. usage behavior (BltU), actual system usage (ASU). Data was collected using an online survey from 90 respondents, consisting of 3 classes of Library Science

Study Program students. A quantitative approach is applied using the Technology Acceptance Model (TAM) to measure the level of acceptance of perceived

usefulness, perceived convenience, attitudes towards use,

behavioral interest in use and actual use of the system.

Based on data analysis, the following results were

obtained: perceived usefulness had a significant effect on perceived ease of use, perceived usefulness had a

significant effect on attitude towards use, perceived ease

of use) perceived usefulness has a significant effect on

attitudes towards use, perceived ease of use has a

significant effect on behavioral intention to use, behavioral intent to use has a significant effect on actual use of the repository system (actual system use), attitude towards use has no effect on actual use of the UINSU repository system (actual system Use). This research contributes to improving human resources for librarians, system stability in utilizing the repository system.

### 1. INTRODUCTION

Libraries today cannot be separated from technology and information, of course libraries also have an important role in providing information. Currently, there are fast and easy information services known as digital services or digital libraries. Digital services make it easy for users to meet their needs, so libraries are currently paying attention to developing library services. The need for information is currently increasing. Ease, speed and accuracy in accessing information are demands of information users to obtain the information that users want.

Libraries as institutions in the field of information and science continue to develop in accordance with developments in information technology. In the current era of information technology, there has been a development in the information needs of the users served. The change in library systems from conventional to digital systems means that libraries must be able to adapt by providing digital access services to users.

The UINSU Repository is a forum for publishing all types of electronic collections produced by the UINSU Medan academic community. This type of collection includes all the work of UINSU Medan lecturers in the form of books, scientific journals, research reports, conference proceedings, textbooks, reports on community service activities and so on. Student work includes theses, theses, dissertations, field work reports. Leadership activity documents include manuscripts of the chancellor's speeches at various events, photos documenting the work of the North Sumatra State Islamic University. The UINSU Repository also contains scientific works written by external authors which are published in printed works or publications, for example articles published in the online journal system. Apart from being a forum for library management and providing the latest information about libraries that is needed by users, the UINSU Repository also has access to online collection browsing, making it easier for users to search for collections online without having to come to the library.

With the change in the library system from a conventional to a digital system, students will take advantage of the new system. This is due to several obstacles such as a lack of understanding of the importance of information technology in supporting all types of activities, as well as the old library paradigm which assumes that the library is a place to collect books. In fact, many universities have implemented digital libraries, but these libraries are not utilized optimally by potential users such as students. Based on these obstacles, efforts need to be made to find out the factors that can influence users to utilize the UINSU digital library. One model used to analyze technology acceptance is the Technology Acceptance Model (TAM). The model developed by Davis (1989) explains that user perceptions can determine their behavior in using technology, including perceived ease of use and perceived usefulness.

#### 2. RESEARCH METHOD

This research uses quantitative research. Quantitative research is a method for testing certain theories by examining the relationship between variables. These variables are measured so that data consisting of numbers can be analyzed based on statistical procedures. The sample for this research is students of the Library Science Study Program, Faculty of Social Sciences, North Sumatra State Islamic University who have used the UINSU Repository. The sampling technique used in this research is the Probability Sampling technique, which is a sampling technique that provides an equal opportunity for each element of the population to be selected as a member of the sample. The sample size taken in this research was calculated using the Yamena formula.

This research uses a quantitative approach, data obtained through an online questionnaire will be analyzed using the Structural Equation Model (SEM) with the example of Partial Least Square (PLS) modeling. SEM is used to test the hypothesis of the relationship between obsessed and non-obsessed variables. SEM is able to analyze the relationship between latent variables and indicator variables, the relationship between one latent variable and another latent variable, and also determines the magnitude of measurement errors (Putra, 2015).

This research refers to an example of modeling from SEM, namely PLS (Partial Least Square) to help analyze data in the relationship between variables using SmartPLS software. PLS is a measuring tool that can be used to conduct research that explains the relationship between variables (Purnamayanti, 2014)

#### 3. RESULT AND DISCUSSION

Quantitative data was collected through several stages, namely, an online survey to students of the 2017 Stambuk Library Science Study Program consisting of 3 classes using SmartPLS data analysis to see the relationship between variables and to determine how much weight each element of technology acceptance presents.

The description of the data presented from the research results is to provide a general overview of the distribution of data obtained in the field and to provide a general overview of the respondents studied. The questionnaire consists of 16 question items that have been used by several previous researchers, the validity and validity of which have been proven to be adequate. This questionnaire was distributed to 90 respondents from Library Science Study Program students and distributed online.

The testing in this research uses the Partial Least Square (PLS) method. PLS is an alternative method with a variance-based Structural Equation Model (SEM). The advantage of this method is that it does not require assumptions and can be estimated with a relatively small sample size. The tool used is the SmartPLS version 3.0 program which is specifically designed to estimate structural equations on a variance basis. The structural model in this research is as follows:

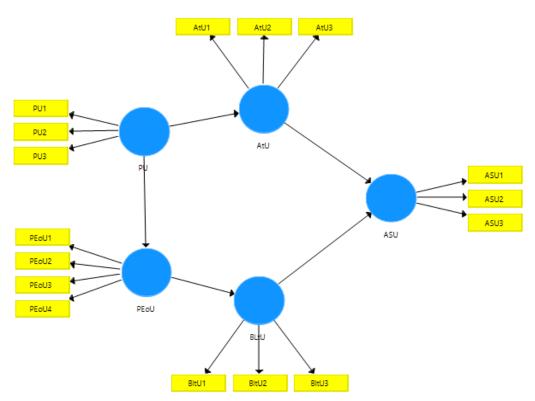


Figure 1. Research Structure Drawing

Based on the picture above, it appears that the Perceived Usefulness variable is measured with 3 indicators (PU1, PU2, PU3), the Perceived Ease of Use variable is measured with 4 indicators (PEoU1, PEoU2, PEoU3, PEoU4), the Attitude variable towards Use (Attitude toward Using) is measured by 3 variables (AtU1, AtU2, AtU3), the variable Behavioral Intent to Use is measured by 3 indicators (BItU1, BItU2, BItU3) and the variable Actual System Use (Actual System Use ) is measured by 3 indicators (ASU1, ASU2, ASU3). The direction of the arrow indicating the indicator with the latent variable is towards the indicator, which means that this research uses reflective indicators which are relatively suitable for measuring perception. The relationship to be studied is symbolized by arrows between variables.

#### DISCUSSION

## Analysis Of Student Acceptance Of The Institutional Repository Of The State Islamic University Of North Sumatera Using The Technology Acceptance Model (Tam) Approach

Based on the presentation of the data results, it is proven that user acceptance of the repository system is quite good. However, the attitude towards using the Repository system does not affect the actual use of the system towards the implementation of the UINSU Repository system. The convenience and usefulness variables have a significant positive influence on the Institutional Repository. Apart from that, convenience and usefulness are both important factors for users to be able to accept a system (Mudawamah, 2015).

At the North Sumatra State Islamic University, students still use the Repository to find the information they need, but there are other factors that influence the use of the system. Another factor that has a more dominant influence is the external factor which is the basis for the user's decision to continue using the UINSU Repository system.

One of the external factors that influences the decision to use a Repository system consists of computer self-efficacy and interface design which influence the user's perception of ease of use, the quality of information which can influence the perception of benefits obtained by the user, the perception of ease of use and usefulness which influences the user's attitude. to accept the Digital Repository which ultimately influences the user's interest in actually using the Repository (Ahmad, 2017; Yuadi, 2009)

This research proves that quantitatively acceptance of system use is quite good, but users still intend to continue using the system. Research shows there are many factors that cause users to decide to stay with technology. The relevance of the information presented by the system, system accessibility and interface design contribute well to usefulness, confirmation and ease of use resulting in user satisfaction in using the system, which will lead to the decision to continue using the digital library. Technical support also has an impact on the usefulness of the system and certainty and also brings user satisfaction with the system and deciding to continue using the digital library system. (Gatot, 2019)

Other factors outside the variables that influence the acceptance of the Repository under study. There are other factors that influence this, such as the low level of students' ability to browse the Repository to find information. Apart from that, there are several obstacles such as a lack of understanding of the importance of information technology in supporting all types of activities, as well as the existence of an old paradigm regarding libraries, namely the assumption that libraries are places where books are collected, which is exacerbated by the lack of culture for sharing knowledge. (Supriyanto, W. Muhsin, 2017).

The Repository system has been widely used by students to fulfill the information needed, in this case human resources. To maintain system use and increase the usefulness of the Repository, librarians need to make communication efforts with program developers. (Gatot, 2019) Because technical problems often occur, librarians must improve their technological capabilities. Apart from that, librarians also need to provide education or seminars regarding the use of the UINSU Repository to students so that users also understand the use of the UINSU Repository. Technical support also impacts system usability and certainty. Institutions or universities must guarantee system stability so that the level of accessibility of the repository system can be relied upon at all times by users which

also brings user satisfaction with the system and users decide to continue using the UINSU Repository system.

### 4. CONCLUSION

Based on the results of the research and discussion "Analysis of Student Acceptance of the Institutional Repository of the North Sumatra State Islamic University of Medan Using the Technology Acceptance Model (TAM) Approach" by distributing questionnaires to UINSU Medan Library Science students, it can be concluded that:

- a. The 2017 Stambuk Library Science Study Program student acceptance rate regarding Perceived Ease of Use was 60% and the remaining 40% was influenced by other factors outside this research
- b. The 2017 Stambuk Library Science Study Program student acceptance rate regarding Behavioral Intent to Use was 46% and the remaining 54% was influenced by other factors outside this research
- c. The 2017 Stambuk Library Science Study Program student acceptance rate regarding Attitude toward Using was 43% and the remaining 57% was influenced by other factors outside this research.
- d. The 2017 Stambuk Library Science Study Program student acceptance rate regarding Actual System Use was 49% and the remaining 51% was influenced by other factors outside this research.

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