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ANALYSIS OF ACADEMIC INFORMATION SYSTEM (SISAK) USAGE BY STUDENTS AT SRIWIJAYA STATE POLYTECHNIC

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ABSTRACT

This study was conducted to investigate the use of the Academic Information System (SISAK) by students at Sriwijaya State Polytechnic and to evaluate the effectiveness of the system in supporting academic activities and services. A quantitative descriptive method was employed in this research, involving 50 students from various majors as participants. Data were gathered using questionnaires modified from earlier research on academic information systems, usability, and user contentment. The results revealed that the majority of students viewed SISAK favorably regarding its user-friendliness, accessibility, quality of information, and effectiveness in aiding academic administration. The system was deemed flexible since it could be accessed on campus as well as off campus. Nevertheless, various challenges were still recognized, especially concerning network reliability, access speed, and issues related to data security. In general, SISAK was viewed as having sufficiently assisted academic services at Sriwijaya State Polytechnic, although additional enhancements in system performance, interface quality, and security were necessary to improve user satisfaction and service quality.

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1. INTRODUCTION

In the contemporary era, technology is regarded as an integral component of daily life, wherein advanced knowledge is extensively utilized to address the inherent complexities within academic environments. The Academic Information System (AIS) is defined as a platform through which digital system implementations are developed to facilitate the synchronization and management of academic data [1]. It has been stated that more efficient decision-making processes can be achieved by organizations through the utilization of information systems, especially in educational institutions that increasingly depend on digital platforms to support academic administration [2]. Therefore, administrative activities within educational institutions can be effectively supported by the implementation of adequate information systems, thereby enabling the delivery of improved services to all stakeholders [3]. However, delays in data processing are still frequently encountered, which are often attributed to the suboptimal implementation of information systems or the low level of user involvement, consequently resulting in adverse impacts on institutional

or organizational performance. In this context, the effectiveness and consistency of system users are considered influential factors, as even highly advanced technological systems may fail to achieve their intended objectives if not supported by optimal user engagement [4].

Research on Academic Information Systems (AIS) has continued to grow along with the development of digital technology. Many researchers agree that the success of a system and the level of user satisfaction are influenced by both technical factors and how users interact with the system. Some important aspects that encourage system usage include perceived usefulness, ease of operation, information accuracy, system reliability, and technical support availability [5]–[7]. In addition, the implementation of WebQual and End-User Computing Satisfaction (EUCS) approaches has demonstrated that interface quality and information clarity significantly affect user satisfaction levels in academic systems [8], [9]. Previous studies have also reported several challenges in the implementation of academic information systems, including less intuitive interface designs, slow system performance, insufficient user training, and difficulties in accessing systems through mobile devices [10]–[12]. Furthermore, satisfaction levels are often associated with the consistency of system performance and the ability of the system to provide accurate and timely academic information [13]. Users are generally more likely to adopt systems that are easy to understand and capable of improving their academic performance [14]. Students who perceive academic systems as useful and accessible also tend to demonstrate higher levels of system utilization and satisfaction [15].

In addition, several studies have emphasized that system usage is influenced by factors such as time efficiency, accessibility, data accuracy, service quality, and user satisfaction [16]–[18]. A higher level of satisfaction is generally experienced when systems provide responsive services, efficient navigation, and compatibility across different devices [8]. The importance of system usability and interface clarity in influencing student satisfaction within academic information systems has also been highlighted in previous studies [19]. However, technical barriers such as system bugs, concerns regarding data security, inadequate technical support, and ineffective communication between system developers and users may negatively affect the successful implementation of academic information systems [4], [5].

Numerous studies regarding academic information systems have been widely conducted in general university settings; however, published studies analyzing local academic systems within vocational higher education environments remain limited. Most previous studies have primarily focused on technical evaluation methods such as WebQual and EUCS, while direct analysis of students' experiences in using local academic systems has not been extensively explored [8], [9]. Additionally, limited research has focused on academic information systems utilized in polytechnic institutions, where academic and administrative activities are generally more practical and demanding compared to conventional university environments.

Consequently, there is a research gap concerning how students in vocational higher education institutions, especially at Sriwijaya State Polytechnic, view and use academic information systems. This study offers a different perspective by focusing on students' perceptions toward the use of SISAK as a local academic information system, including aspects of usability, accessibility, information quality, system performance, and security. The novelty of this study lies in the evaluation of SISAK usage within a vocational education context through direct analysis of students' experiences and responses toward the system. This study seeks to examine the utilization of SISAK by students at Sriwijaya State Polytechnic and to assess its efficacy in enhancing academic services and activities. The primary research question explored in this study is: how do students perceive the implementation of SISAK in aiding academic activities and services at Sriwijaya State Polytechnic?

2. METHOD

2.1. Research Methods

This research applied a quantitative method with a descriptive design to analyze the usage of the Academic Information System (SISAK) by students at Sriwijaya State Polytechnic. Quantitative research is commonly used to examine measurable variables and analyze numerical data through statistical procedures [20]. The purpose of this study was to investigate the influence of technology on human behavior, identify technical constraints within the system, and evaluate the direct impact of SISAK usage on students in the campus environment.

The research was conducted at Sriwijaya State Polytechnic involving 50 students from various majors as participants. To maintain privacy and confidentiality, all participants' identities were anonymized using pseudonyms throughout the research process. Data collection was carried out systematically through several stages, including questionnaire distribution, data transcription, data analysis, and validation.

The primary instrument used in this study was a questionnaire developed by the researchers to obtain detailed information regarding students' experiences in using the SISAK system. Several questionnaire items were adopted and adapted from previous studies related to academic information systems, especially studies discussing system effectiveness and user acceptance [1], [14]. Furthermore, indicators related to usability and interface quality were adapted from previous studies employing the WebQual and End User Computing Satisfaction (EUCS) approaches [6], [9]. The questionnaire items were then modified to align with the objectives of this research.

The collected data were manually transcribed and subsequently analyzed by calculating the percentage of each response category. To maintain consistency and accuracy, the data were reviewed several times throughout the analysis process. To ensure the credibility of the results, member checking was performed by requesting participants to confirm their answers. This process was documented through signed acknowledgments from each participant as formal evidence of validation.

2.2. Percentage Calculation

The questionnaire data were analyzed using percentage calculations to determine the proportion of responses in each category. The percentage formula used in this study is presented as follows:

$$P = \frac{f}{N} X\ 100\% \quad (1)$$

Where:
P = Percentage of responses
f = Frequency of responses obtained
N = Total number of respondents

The calculation results were then categorized into agree, neutral, and disagree responses to describe students' perceptions regarding the use of the Academic Information System (SISAK) at Sriwijaya State Polytechnic.

2.3. How to Reconciliation and Citations

References used in this study are written using numbered citations enclosed in square brackets. Citations are included in the discussion section to indicate the source of theories, previous studies, and supporting statements. The citation format follows examples such as [1], [2, 5–7], and [2–5, 12–13].

3. RESULT AND DISCUSSION

3.1. Respondent Characteristics

Tabel 1. Descriptive Data of Respondents Based on Major

Major	Frequency	percentage
Electrical Engineering	32	64%
Civil Engineering	6	12%
Mechanical Engineering	6	12%
Business Administration	3	6%
Accountancy	2	4%
Informatics Management	1	2%
Total:	50	100%

From the table it can be seen that most of the respondents came from electrical engineering majors as many as 32 students (62%). followed by civil engineering majors with 6 students (12%), mechanical engineering with 6 students (12%), business administration with 3 students (6%), accounting with 2 students (4%), informatics management with 1 student (2%), and computer engineering with 1 student (2%).

Tabel 2. Characteristics of subjects in terms of SISAK usage duration

Range	Frequency	Percentage
1 Year	41	82%
2 Years	5	10%
Over 2 Years	4	8%
Total:	50	100%

Based on the data in the table above, the most respondents were in the range of 1 year which is 41 students (82%), then 2 years as many as 5 students (10%), and more than 2 years as many as 4 students (8%).

3.2. Descriptive Analysis

Tabel 3. The use of SISAK by students

Statement	Agree	Neutral	Disagree
The software on the information technology provided is easy to use.	80%	2%	18%
Polytechnics enforce rules for access to information	80%	20%	0%
Access to academic information through reliable networks	78%	24%	0%
Data access via the network does not take a long time	50%	34%	16%
When the network cannot be used there is always confirmation or information.	50%	30%	20%
Academic information is easy to access	70%	30%	0%
Easily accessible system outside Sriwijaya State Polytechnic	76%	24%	0%
The academic information obtained by students is according to their needs.	70%	28%	2%
Academic information needed on time	52%	44%	4%
Academic information is always updated	66%	34%	0%
Complete academic information received	66%	32%	2%
Information is not up to date	26%	52%	22%
The academic system is equipped with features that make it easier	78%	20%	2%
My interactions with the academic system felt clear and understandable.	64%	34%	2%
I found the academic system easy to navigate.	54%	42%	4%
The academic system has an attractive appearance	50%	44%	6%
Academic system design according to the type of website as an educational tool	60%	40%	0%
The academic system has a good reputation	64%	34%	2%
My personal information feels safe	44%	42%	14%
The site looks convincing and competent	58%	38%	4%

The results of the questionnaire indicated that most students gave positive responses toward the use of the Academic Information System (SISAK) at Politeknik Negeri Sriwijaya. In general, SISAK was considered useful in supporting students' access to academic information and facilitating academic administrative activities. Similar findings were reported by Aryani et al. [1], who stated that academic information systems contribute significantly to improving students' academic services and administrative efficiency.

The majority of respondents stated that the system could be operated and understood without significant difficulty. The features and interface provided by SISAK were also perceived as sufficiently simple to support students in using the system effectively. Findings similar to those obtained in this study were also reported by Wibowo and Pramesti [7], in which ease of use was identified as one of the primary factors influencing the acceptance of academic information systems among users. In addition, access to academic information through SISAK was considered flexible because the system could be accessed both on and off campus. Similar results were also identified by Pauji et al. [14], who emphasized that accessibility and flexibility positively affect user satisfaction in web-based academic information systems.

The information available in SISAK was generally considered appropriate to students' needs. The academic information provided by the system was also perceived as sufficiently complete and regularly updated. This finding supports the study conducted by Ernungtyas et al. [13], which highlighted that information quality and data accuracy are important determinants of user satisfaction in information systems.

However, several obstacles were still identified, particularly related to internet network stability and system access speed during certain periods. Similar issues regarding system performance and response time were also discussed by Ferreira et al. [12], who stated that system responsiveness significantly affects users' experiences and satisfaction levels.

Overall, SISAK was considered to have functioned adequately in supporting academic services for students at Politeknik Negeri Sriwijaya. Nevertheless, improvements in system performance and interface design were still considered necessary to enhance the quality of academic services continuously. These findings are also consistent with the study conducted by Akbar et al. [8], in which interface quality and responsive services were identified as important aspects influencing user satisfaction toward academic information systems.

3.2.1. Ease of Use and Information Accessibility

The students at Sriwijaya State Polytechnic found the SISAK system to be easy to use. 80% of the students said that the information technology software was easy to use. The same percentage of students also said that the

Polytechnic had implemented policies that supported access to information. This means that the SISAK interface and access procedures were suitable for the students' academic needs. The students could access information easily. About 70% of the students said that academic information could be accessed easily and 76% of the students said that the system could still be accessed outside the campus area. This shows that SISAK provided flexibility for the students in accessing services.

The SISAK system is consistent with the findings of Wibowo and Pramesti [7], who stated that ease of use is a factor that influences user acceptance of academic information systems. Also, system accessibility and flexibility are similar to the findings of Azeroual et al. [4], who stated that accessibility is an important component in information system success. Pauji et al. [14] also stated that flexible access significantly contributes to student satisfaction in academic systems.

3.2.2. System Performance and Reliability

The students found the network access to be reliable. 78% of the students said that the network system functioned well. However, 50% of the students said that the data access speed needed improvement. The system was not always fast when the students used it. This means that the network system functioned well but the access speed was still a problem. Also, half of the students said that information or confirmation was not always available when network disruptions occurred. The students needed information when the network or system had disruptions. The students needed improvements in notification systems or alternative communication channels.

The SISAK system is similar to the findings of Ferreira et al. [12], who stated that system efficiency and response time significantly influence user satisfaction. Akbar et al. [8] also stated that responsive services and system communication are factors that affect user satisfaction in academic information systems.

3.2.3. Information Quality and Accuracy

The quality of information provided by the SISAK system was found to be satisfactory by the students. 70% of the students said that the academic information matched their needs. 66% of the students said that the information was updated regularly. 68% of the students said that the information provided was complete enough for academic purposes. However, some students felt that the information available was not always updated. The students needed improvements in data updating processes so that they could receive current information.

The SISAK system is consistent with the findings of Ernungtyas et al. [13], who stated that information quality, accuracy, and timeliness are determinants of user satisfaction. Ramadhan et al. [18] also stated that information quality and service quality directly influence student satisfaction in education information systems.

3.2.4. Features, Navigation and User Interaction

The features available in the SISAK system were generally viewed positively. 78% of the students said that the features provided were helpful in supporting academic activities. The students found the user interaction with the system to be clear and understandable. The system was considered easy to use and appropriate for an educational platform. The appearance of the website was viewed as professional and convincing by students.

The SISAK system is consistent with the findings of Hidayat et al. [19], who reported that usability and interface clarity significantly influence student satisfaction. Kurniawan and Saputra [10] also stated that system usability and interface design play an important role in shaping user experience within academic systems.

3.2.5. System Security and Reputation

The students found the security of the SISAK system to be a concern. 44% of the students said that their personal information within the system was secure. However, some students still expressed concerns regarding data protection. The students needed improvements in system security to enhance user confidence in the SISAK system. The reputation of the SISAK system was viewed positively by students. The system was considered to have provided academic services for the students.

The SISAK system is similar to the findings of Anwarudin et al. [5], who stated that system security issues can reduce user trust and satisfaction. Khumaedi [16] also stated that system reliability and quality are associated with user perception.

3.2.6. Attractiveness and Overall Impression

The appearance of the SISAK system was considered quite good by the students. About half of the students said that the appearance was attractive. The website was perceived as professional and reliable by other students. The SISAK system was considered to have supported activities effectively. The SISAK system is consistent with the findings of Prasetya and Efrilianda [9], who stated that interface quality influences user satisfaction in information

systems. Muhajir et al. [15] also stated that academic information systems play a role in supporting academic service efficiency.

3.2.7. Implications and Recommendations

The results of this study indicated that the SISAK system was considered useful in supporting students' academic activities and access to information. The system was considered to have functioned well although some aspects were still identified as requiring further improvement. The students needed improvements in server performance and network management to achieve better system access. The students also needed information when network or system disruptions occurred. Furthermore, improvements in data security were needed to develop greater confidence in the system among students. The SISAK system was expected to provide services that were more effective, stable, and convenient for students at Sriwijaya State Polytechnic.

The SISAK system is consistent with the findings of Sitorus et al. [17], who stated that system quality strongly affects user satisfaction. Ferreira et al. [12] also stated that system performance and responsiveness are important factors in improving user experience in digital systems.

4. CONCLUSION

Based on the results obtained in this study, the Academic Information System (SISAK) at Sriwijaya State Polytechnic was viewed positively by most students and was considered able to support academic activities effectively. Access to academic information and administrative services was considered easier through the use of SISAK, while the system was also regarded as fairly easy to understand and operate. In addition, the system could be accessed both inside and outside the campus environment, allowing students to obtain academic information more flexibly. The information provided through SISAK was generally considered suitable for students' academic needs because it was viewed as complete and regularly updated. The available features and navigation system were also considered useful in supporting activities such as checking schedules, viewing academic records, and accessing other academic services. From the aspect of system performance, network access and system reliability were considered adequate by most respondents, although several students still experienced obstacles related to access speed, especially during periods when the system was accessed simultaneously by many users. Technical disruptions and limited information regarding system problems were also still experienced in certain situations. In terms of security, concerns regarding the protection of personal information were still expressed by several respondents, indicating that further improvements in system security and privacy protection were still required in order to strengthen user confidence in SISAK. Overall, positive support for academic services at Sriwijaya State Polytechnic was considered to have been provided by SISAK, although further system development and improvement were still required so that the quality of academic services could be enhanced and a better user experience could be achieved in the future.

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