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User Satisfaction on Academic Information System in UIN KH Abdurrahman Wahid Pekalongan

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***Abstract*—The aim of this research is to evaluate the satisfaction level of students, lecturers, and educational staff towards the integrated academic information system, Sistem Informasi Akademik Terpadu (SIKADU), at UIN KH Abdurrahman Wahid Pekalongan, and to test whether there are any differences in satisfaction levels among these three groups. Additionally, this study aims to identify any issues encountered by users while utilizing it. The population for this research consists of users of SIKADU in UIN KH Abdurrahman Wahid Pekalongan. A convenience sampling technique was employed, and 162 respondents were selected as the sample. The data was analyzed using descriptive statistics, Kruskal Wallis and Cronbach's alpha test. The findings revealed that (1) there are significant differences in satisfaction levels among these three groups (2) 61.8% of the respondents were satisfied with the performance of SIKADU (3) only 17.3% of respondents accessed SIKADU on a daily basis (4) the majority of respondents (67.3%) accessed SIKADU through their mobile phones while at home (5) all dimensions of satisfaction measurement were deemed valid and reliable (6) the primary obstacles faced by the academic community were related to inputting data during course input and downloading scoring forms using SIKADU.**

***Index Terms*—End user computing satisfaction, integrated academic information system, level of satisfaction, SIKADU performance, state islamic university.**

I. INTRODUCTION

The objective of developing information systems is to achieve successful application in the institutions that use them, as well as by their developers. To assess success, various benchmarks can be used, such as high levels of system usage, user satisfaction with the system, meeting the set objectives, financial returns, and positive attitudes of users towards the system [1]. Among these indicators, user satisfaction is generally seen as the most important and most widely used measure of an information system success [2]–[4].

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Since the 1980s, there has been a substantial body of research dedicated to creating standardized tools to measure user satisfaction with information systems. One notable contribution is the work of Ives et al. [5], who developed a 4-item measure known as User Information Satisfaction (UIS4). This measure is an adaptation of Bailey and Pearson's [6] framework, which comprises 39 factors that influence satisfaction. Another significant development in this area is the System Usability Scale (SUS) created by Brooke [7]. The SUS is a ten-item questionnaire designed to assess users' subjective perceptions of usability, offering a straightforward and standardized approach to evaluate user satisfaction with interactive systems. These advancements in measurement tools have greatly facilitated the study of user satisfaction in the context of information systems.

Doll and Torkzadeh's [8] research was among those studies that produced a reliable instrument called End User Computing Satisfaction (EUCS), comprised five components: content, accuracy, format, ease of use, and timeliness to measure satisfaction with end-user computing. End User Computing (EUC) refers to the process of creating or modifying computer-based systems by individuals who lack expertise in programming languages. The end user, who is also the primary user of the resulting computer-based system, is typically synonymous with the user [9]. In various contexts, such as hospitals [10], [11], government [12], library [13], and education [14]–[18], several researchers have adopted and tested this instrument.

Since 2012, the Sistem Informasi Akademik Terpadu (SIKADU), an Integrated Academic Information System, has been utilized in numerous universities including UIN (Universitas Islam Negeri) KH Abdurrahman Wahid Pekalongan (formerly known as IAIN Pekalongan) as an illustration of the implementation of End User Computing (EUC).

Previous studies utilizing the EUCS instrument in educational contexts have primarily focused on private educational institutions, university websites, and well-established academic systems. Therefore, there is a need for research on state Islamic universities, where their academic applications may be relatively underdeveloped due to resource constraints, as is the case with Sistem Informasi Akademik Terpadu (SIKADU) in UIN KH Abdurrahman Wahid Pekalongan.

SIKADU is an online information system designed to manage academic data in a web-based format for universities. Its features include managing registration and lecture schedules, handling the Study Plan Card (KRS), monitoring lectures, organizing student grades, and facilitating graduation registration, among others. The system can be accessed via the internet through web pages

designated by each educational provider. For instance, SIKADU at UIN KH Abdurrahman Wahid Pekalongan is accessible through the landing page https://sikadu.uingusdur.ac.id/.

SIKADU provides several benefits to students, including (1) facilitating grade monitoring and academic activities online, including access to historical academic grade, Cumulative Grade Point Average, and academic progress reports (2) Simplifying the registration process (3) providing access to class schedules (4) allowing for the filling and revision of the Study Plan Card (KRS) (5) enabling students to add or cancel courses during the current semester in accordance with the specified schedule [19].

Users of SIKADU at UIN KH Abdurrahman Wahid Pekalongan have reported that they are not experiencing the full benefits of the system. Some of the complaints include difficulty accessing the system during the KRS period, data storage issues on the server, and difficulty accessing the system from outside the network. Failure to address these complaints may lead to user dissatisfaction. User satisfaction is a critical measure of the success of information systems implementation.

The primary users of SIKADU are students who typically belong Z generations, born between the 1997 to 2012. They are individuals with a strong affinity for technology, having grown up in an environment surrounded by computerization, digital media, the internet, and electronic devices. As a result, they have developed an expectation for everything, including feedback, to be fast and instantaneous [20], [21] .

It's natural for students to stop using SIKADU immediately or switch to a different application if they encounter unsatisfactory services. They may spread their dissatisfaction on social media, which could result in negative impressions of the application and the university. This negative publicity can quickly spread among users and the wider community, leading to a decline in the application's usage and a negative image for the university.

Since the development of the EUCS instrument, there has been a significant growth in information technology, especially with the widespread use of the internet among the public. The increasing number of websites and web-based applications is a clear indication of the popularity of web technology and internet-based information systems. The internet has opened up opportunities for free access to information, which can be accessed anywhere, anytime, and by anyone without significant limitations.

Therefore, there are significant differences in the environment between when the EUCS instrument was originally developed and current conditions. There may be concerns regarding the validity and reliability of this instrument if used under the present circumstances. However, a study conducted by Xiao & Dasgupta [22] has demonstrated that, even with some minor improvements, the EUCS instrument remains valid and reliable when used to measure user satisfaction with information systems. Additional studies conducted by McHaney et.al [23], Aggelidis & Chatzoglou [3], Deng et al. [24] Yudistira et.al [25], and Saputra [26] further reinforce the robustness of EUCS as a reliable measure of satisfaction and as an indicator of the successful implementation of applications.

There is currently limited research on user satisfaction in the UIN Pekalongan environment, despite the importance of such research for evaluating program success and providing input for future improvements. Among the studies aimed at evaluating programs at UIN Pekalongan are those by Rosyid et al. [27], which assess satisfaction with academic services, and Rosyid [28], which examines graduate user satisfaction.

Taking into account that user satisfaction is a crucial indicator of successful implementation of information systems, this study aims to assess the level of satisfaction of the primary users of SIKADU UIN KH Abdurrahman Wahid Pekalongan application by utilizing the End User Computing Satisfaction (EUCS) instrument devised by Doll and Torkzadeh [8].

The objective of this research is to evaluate the successful implementation of information systems at UIN KH Abdurrahman Wahid Pekalongan, with a particular focus on the Integrated Academic Information System (SIKADU). SIKADU is a vital application that provides accurate data in the academic field. The success of the information system is determined by measuring the satisfaction level of SIKADU users using the End User Computing Satisfaction (EUCS) instrument developed by Doll and Torkzadeh. Although developed some time ago, Xiao & Dasgupta's tests have shown that the EUCS instrument is still relevant even with the significant changes in the information technology environment due to the rapid development of the internet. This research aims to (1) measure the level of satisfaction among users of SIKADU at UIN KH Abdurrahman Wahid Pekalongan using the EUCS instrument (2) compare the satisfaction level of lecturers, students, and educators when using SIKADU (3) identify the challenges faced by the academic community in using SIKADU.

II. Related Work

The effective functioning of the information system design process is considered a sign of successful information system development. Nonetheless, accurately describing system success is a challenging task, as acknowledged by Laudon and Laudon [29]. The use of cost-benefit analysis is not foolproof, as not all benefits can be measured. Many studies [30]; [31]; [32]; [33]; [34]; [35]; [36] have employed user satisfaction as a proxy for information system success.

According to Laudon and Laudon [37], there are five variables that can be used to assess the success of information systems. These variables are a high level of system usage, user satisfaction with the system, a positive attitude of users towards the system, achieving set objectives, and financial payoff. In addition to Laudon and Laudon's variables, Delone and McLean [38] have included individual impact and organizational performance in their models for evaluating information system success.

Implementing an information system can be a risky endeavor with many instances of both success and failure. While categorizing a system as a success or failure may seem straightforward, the process of measurement is not as simple as answering yes or no. A system may be perceived as successful by one group but considered a failure by another due to differing perspectives. As a result, it is becoming increasingly difficult to accurately measure the success or failure of a system.

To address this challenge, Doll and Torkzadeh developed an instrument to measure the successful implementation of information systems. This instrument is specifically designed for the end user computer environment, where applications are used not only by experts but also by individuals who may not be familiar with computers.

The instrument comprises five dimensions: content, accuracy, format, ease of use, and timeliness. Content measures the information and menus available in the application, accuracy measures the precision of the output results, format evaluates the user-friendliness of the application interface, ease of use assesses whether the application is easy for users to navigate, and timeliness measures whether the output produced by the application can be obtained promptly when needed.

The instrument was embraced by multiple researchers who conducted tests in various contexts. Cucus and Halim use EUCS

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to asses Hospital Management Information System at RSUD dr. A. Dadi Tjokrodipo Lampung Indonesia and found that all dimensions are in good category [10]. Adrianti and Hosizah also use it to asses e-Puskemas in Sawah Besar Jakarta and all dimensions also in good category [11].

Meanwhile, Ayu and Oktaviana [12] used EUCS (End User Computing Satisfaction) to test the satisfaction of the citizens of Depok City regarding the Depok Single Window application. The result shows that the citizens of Depok City are satisfied with this application based on the five dimensions of EUCS. This result confirms that EUCS can be used in a governmental context.

The EUCS instrument has also been used in the context of education. For example, Ramadhan et.al. [18] employed it to assess satisfaction with the online Course Registration System (KRS) at STIKES Kusuma Husada Surakarta. Saputri and Alvin [17] used it for the website portal of Bina Darma University. Fitriansyah and Haris [14] applied it to the website of Universal University in Kota Batam. Sugandi and Halim [15] utilized it for the mobile academic application of Bina Darma University. Additionally, Puwanto and Hedin [16] employed it for the academic information system at the Institute of Science and Technology Al-Kamal (ISTA) in Jakarta.

Past research studies have predominantly utilized the EUCS instrument in educational settings, with a specific emphasis on private educational institutions, university websites, and robust academic systems. Consequently, there exists a research gap pertaining to state Islamic universities, where their academic applications may be comparatively underdeveloped due to limited resources. An example of such a case is the Sistem Informasi Akademik Terpadu (SIKADU) at UIN KH Abdurrahman Wahid Pekalongan, which warrants further investigation.

III. Research Method

The research methodology employed in this study is a quantitative descriptive approach. This approach was selected because the data collected is in numerical form and requires both description and interpretation. As stated by Kumar [39], descriptive research aims to determine the value of one or more independent variables without making comparisons or connecting them with other variables.

The population of this study consists of the users of the SIKADU UIN KH Abdurrahman Wahid Pekalongan application, including lecturers (N = 180), students (N = 9.085), and academic staff (N = 60) within the UIN KH Abdurrahman Wahid Pekalongan environment. The sample for this study was selected using convenience sampling techniques and gained 162 respondents.

The study was conducted in Pekalongan, with the analysis unit being the entire academic community at UIN KH Abdurrahman Wahid Pekalongan. This selection was based on several factors, including the fact that they are active users of the SIKADU application, have been using it for an extended period, and their responses to the application's performance have not been recorded previously. Additionally, developers require input from application users to understand their needs and preferences.

Data collection for the study was performed using a questionnaire instrument adapted from the EUCS instrument developed by Doll and Torkzadeh [8], which measures the level of user satisfaction with the application. The instrument was distributed through two channels: conventional and online. The conventional approach involved distributing print questionnaires to respondents, while the online approach utilized links to online questionnaires, which were distributed through WhatsApp groups and other online platforms.

The collected data is first checked for completeness and consistency before being processed using statistical tests. Validity and reliability tests are used to ensure that the questionnaire instrument is valid and reliable for measuring user satisfaction. Validity is tested by examining the correlations between the questions in the questionnaire, while reliability is tested using the Cronbach's alpha test.

Once the validity and reliability tests are completed, descriptive statistics are used to describe the characteristics of the data collected. Descriptive statistics help to summarize and present the data in an easily understandable manner, such as mean, standard deviation, and frequency distribution.

The final step in data analysis involves employing inferential statistics, specifically the Kruskal-Wallis test, to examine if there are significant variations in user satisfaction levels among students, lecturers, and education staff. The Kruskal-Wallis test is a non-parametric test used to compare means across more than two independent groups, measured on an ordinal scale. In this case, the three user groups of SIKADU are being compared. By conducting this test, we can determine if there are noteworthy differences in user satisfaction levels among these groups. In addition, if the outcomes of the Kruskal-Wallis test reveal significant differences among the groups, it is necessary to conduct a subsequent analysis using a post hoc test known as the Mann-Whitney U test. This test enables us to identify the specific groups that exhibit significant differences among them. The outcomes of this study will provide valuable insights into the extent of user satisfaction with the SIKADU application and reveal any variations in satisfaction levels between different user groups and it illustrates in Fig. 1.

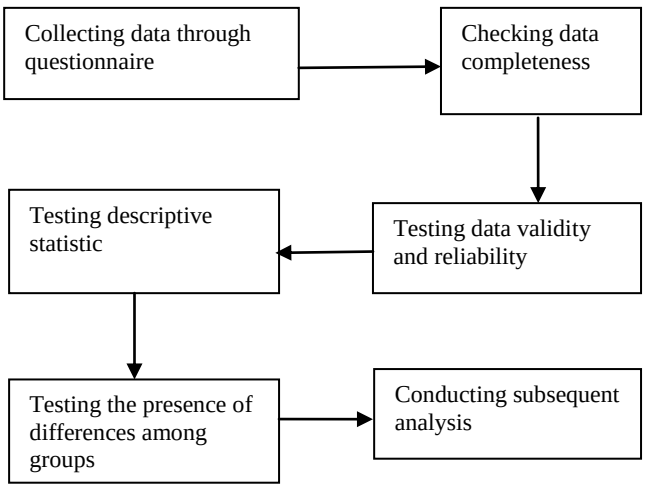

Fig. 1. Data Analysis Stages

IV. Result

The research participants for this study consisted of the entire academic community of UIN KH Abdurrahman Wahid Pekalongan in 2018, including students and education staff. A total of 162 respondents completed the questionnaire, with 108 students

(66.7%), 32 lecturers (19.8%), and 22 education staff (13.6%). Furthermore, the majority of respondents had a tenure of 1 to 2 years, accounting for 48.8% of the total. Conversely, only a small percentage of respondents, 4.3%, had been at the institution for 5 to 6 years.

Approximately 38.3% of respondents access SIKADU regularly, either every day (17.3%) or every week (21%). This indicates a significant portion of users who are highly engaged with the platform and likely find it essential to their daily or weekly activities. The fact that a significant portion of respondents access SIKADU every day and every week indicates high user engagement. It suggests that the platform is meeting their needs consistently and is likely offering valuable features or services that keep them coming back. Meanwhile, around 12.3% of respondents access SIKADU each month. While this percentage is lower than the regular usage, it still represents a notable group of users who utilize the platform periodically for their needs. Lastly, the majority of respondents (49.4%) access SIKADU occasionally, only when needed. This suggests that a considerable number of users rely on the platform for specific purposes or tasks, but it might not be an integral part of their regular routine.

The data shows that the majority of users (67.3%) access the service from their homes. This indicates that the service is primarily used by people in their personal or private settings. Home access is typically associated with more extended sessions and a higher level of comfort while using the platform. Approximately 30.9% of users access the service from a campus location. This suggests that the service is popular among students or individuals present in educational institutions. Campus access might be related to specific use cases, such as academic or research purposes. Meanwhile, access from internet cafes is relatively low, with only 1.9% of users using this location. This could be due to the declining popularity of internet cafes in favor of more convenient personal devices or mobile connectivity. It also suggests that the service is not heavily reliant on internet cafe users.

The data reveals that the web version is the most popular means of accessing the service, accounting for 53.7% of users. This indicates its widespread use and popularity among the user base. Additionally, the usage between mobile and desktop versions is relatively balanced, with 34% accessing via mobile and 12.3% via desktop. Thus, the service caters well to both desktop and mobile users without favoring one platform significantly. Notably, the 34% of users accessing the service through the mobile version signifies a substantial user segment, highlighting the service's mobile-friendliness and the convenience users find in accessing it through their mobile devices. Considering the web version's popularity, it becomes imperative to ensure a responsive web design that offers an optimal user experience across various devices, such as desktops, laptops, tablets, and smartphones. This adaptability will contribute to retaining user engagement and satisfaction. Furthermore, given the significant usage through the mobile version, exploring the development of a dedicated mobile app presents an opportunity. Such an app could enhance the user experience, provide additional features, and potentially foster increased user retention and engagement. In summary, the data underscores the importance of a well-designed web version, catering to both desktop and mobile users, and highlights the potential benefits of developing a dedicated mobile app to further enhance the service's overall appeal and usability.

The data indicates that the respondents can be categorized into three distinct expertise levels: Newbie, Standard, and Professional. "Newbies" are individuals who are relatively new to the field and have limited experience, "Standard" respondents represent the middle ground in terms of expertise, and "Professional" respondents are likely experienced and have a higher level of expertise. The majority of respondents (54.9%) identify themselves as "Standard," suggesting that there is a significant proportion of individuals with intermediate expertise or experience in the surveyed domain. This might indicate that the survey targeted a broad audience with varying levels of expertise. This data also shows a relatively balanced distribution of respondents across the three categories, with "Newbies" comprising 7.4%, "Standard" at 54.9%, and "Professional" at 37.7%. This balance could be beneficial for obtaining a comprehensive understanding of the perspectives and opinions of users with diverse levels of expertise.

Based on the table provided, the majority of respondents (70.4%) tend to seek assistance from those who are knowledgeable and capable of providing solutions when faced with obstacles in using SIKADU. Only a small percentage of respondents (9.3%) tend to give up when encountering problems while using SIKADU.

The majority of respondents (53.1%) tend to seek help from friends when encountering problems with SIKADU. The second most common option (44.4%) is to seek assistance from the Information Technology and Database Unit. Only a small proportion of respondents (2.5%) choose to browse Google for solutions to SIKADU-related issues. These findings indicate that personal networks and official support channels are the preferred methods for addressing problems with SIKADU among respondents.

Based on the data provided, the academic community primarily uses smartphones to access SIKADU, accounting for 69.1% of usage. The second most commonly used device is personal computers, with a usage percentage of 20.4, followed by laptops with a percentage of 10.5.

Table 1. Respondent Characteristics

No.	Characteristic	Items	*n*	%
1.	Profile	Lecturers	32	19,8
		Student	108	66,7
		Education Staff	22	13,6
2.	Tenure	< 1 year	25	15,4
		1-2 year	79	48,8
		3-4 year	28	17,3
		5-6 year	7	4,3
		> 6 year	23	14,2
3.	Frequency of accessing SIKADU	Every day	28	17,3
		Every week	34	21
		Each month	20	12,3
		Occasionally only if needed	80	49,4
4.	Version Used	Desktop	20	12,3
		Web	87	53,7
		Mobile	55	34
5.	Access Location	Home	109	67,3
		Campus	50	30,9
		Internet cafe	3	1,9
6.	Device	PC	33	20,4
		Laptop	17	10,5
		Mobile device	112	69,1
7.	Respondent Type	Newbie	12	7,4
		Standard	89	54,9
		Professional	61	37,7
8.	Attitude on issue	Just leave it	15	9,3
		Try to solve it	33	20,4
		Asking for help	114	70,4
9.	Party asked for assistance	Friend	86	53,1
		Google	4	2,5
		IT Support	72	44,4

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The purpose of the validity test is to assess the accuracy of the measuring instrument in capturing the intended construct. In this study, the validity of the questionnaire items was evaluated using Pearson correlation. The results of the validity test are presented in Table 2. The table indicates that all of the items in the questionnaire are valid based on the results of testing the validity with 162 respondents. The calculated correlation coefficient (r-count) is higher than the table value (r-table), indicating that all questions are suitable for measuring the intended variables.

Table 2. Validity Testing

Variable	Item	r-count	r-Table	Result
Accuracy	X1.1	0.950	0.1543	Valid
	X1.2	.953	0.1543	Valid
Content	X2.1	0.885	0.1543	Valid
	X2.2	.903	0.1543	Valid
	X2.3	0.930	0.1543	Valid
	X2.4	.908	0.1543	Valid
Ease of Use	X3.1	0.914	0 , 1543	Valid
	X3.2	0.943	0 , 1543	Valid
Format	X4.1	0.944	0 , 1543	Valid
	X4.2	0.941	0 , 1543	Valid
Timeliness	X5.1	.903	0 , 1543	Valid
	X5.2	0.924	0 , 1543	Valid

The reliability test, on the other hand, is conducted to assess the consistency of respondents' answers over time. A reliable instrument ensures that the data collection tool can be trusted to provide accurate information. In this study, the Cronbach Alpha test was used to test the reliability of the questionnaire. Table 3 shows that all variables in this study (accuracy, content, ease of use, format, and timeliness) have a Cronbach Alpha score above 0.6. Therefore, it can be concluded that the respondents' answers are reliable.

Table 3. Reliability Testing

Variable	Cronbach Alpha	Result
Accuracy	0.895	reliable
Content	0.927	reliable
Ease of Use	0.833	reliable
Format	.873	reliable
Timeliness	0,800	reliable

Table 4. Test of difference in satisfaction level

No	Test	Parameters	Result
1.	Satisfaction level Lecturers (A) and Students (B)	p-value	0,048
		N sample A	32
		N sample B	108
		Mean A	4,19
		Mean B	3,51
		SD A	0,896
		SD B	0,991
2.	Satisfaction level Lecturers (A) and Education staff (C)	p-value	0,856
		N sample A	32
		N sample C	22
		Mean A	4,19
		Mean C	4,09
		SD A	0,896
		SD C	0,811
3.	Satisfaction level Students (B) and Education staff (C)	p-value	0,043
		N sample B	108
		N sample C	22
		Mean B	3,51
		Mean C	4,09
		SD B	0,991
		SD C	0,811

Based on the test results, it is evident that there is a significant difference in the level of satisfaction in using SIKADU between lecturers and students, and between educational staff and students. However, the level of satisfaction in using SIKADU between lecturers and employees is not significantly different.

The problem most mentioned by respondents related to SIKADU is KRS input. Some of their complaints include:

" SIKADU is easy to access anytime, except in certain conditions, such as when input of the Krs , students often experience problems in inputting Krs "

" SIKADU makes a headache when the KRS input period "

"Sometimes I still like slow, especially when the KRS input period "

" SIKADU often error when the time period of the input krs "

"Always constrained in KRS input "

"If the time input krs SIKADU always the error and it is difficult for remote access"

" At the moment the students enter the schedule of lectures, sometimes SIKADU arrived" error and cannot be accessed via phone android ... it is difficult to input a schedule because a lot of students who are logged into SIKADU ... thank you ... "

The KRS input period is a challenging time for the academic community, as students struggle to select courses according to their preferences. However, their plans are often thwarted by numerous obstacles such as difficulties in accessing SIKADU, sudden errors in the application, and server downtime. These obstacles occur every time the KRS input period rolls around. To address these issues, Unit Teknologi Informasi dan Pangkalan Data (UTIPD) is responsible for monitoring the SIKADU application and ensuring that the server runs smoothly. UTIPD has implemented several measures to mitigate these challenges, including:

- The KRS input schedule for the first semester of 2022-2023, which took place from August 2nd to August 16th, required students from 18 majors in four faculties to input their study plans on different days and times. The schedule for the KRS input was as follows:

  HTN and HES: August 2nd, from 08.00 to 15.00

HKI and PBA: August 3rd, from 08.00 to 15.00

Pendidikan Agama Islam: August 4th, from 08.00 to 15.00

PGMI and PIAUD: August 5th, from 08.00 to 15.00

TBIG and TMAT: August 8th, from 08.00 to 15.00

IAI, KPI and Ilmu Hadis: August 9th, from 08.00 to 15.00

BPI, TP and MD: August 10th, from 08.00 to 15.00

Aksya and Perbankan Syariah:August 11th, from 08.00 to 15.00

Ekonomi syariah: August 12th, from 08.00 to 15.00

All majors: August 15th, from 08.00 to 15.00

New students from all majors: August 16th, from 08.00 to 15.00

This arrangement ensured that the KRS input process was organized and manageable, and allowed for efficient use of resources and facilities.

- To reduce the strain on the wired LAN connection, priority should be given to the WiFi connection used by students. Currently, WiFi is the only internet access available to students.
- It is recommended to upgrade the SIKADU server by submitting a budget proposal. The current server, Dell R720, has specifications such as Intel Xeon E5 2600 and 16 GB of RAM and it has been used for more than 5 years. The server room condition is also not supportive. The room's cooling system is not running optimally. According to observations by the UTIPD team, the server's RAM usage reaches its peak during periods of heavy SIKADU access. If this condition persists, it may affect the server's endurance.
- The academic community has also reported difficulties in uploading and downloading grade forms, particularly when using an internet connection outside of the UIN KH Abdurrahman Wahid Pekalongan campus. Many lecturers have faced such issues and have expressed their concerns.

The process of downloading score forms through the SIKADU application has not been smooth, as it requires a fast internet connection. When the server processes this request, the processor has to work harder since there is a lot of data to process within a predetermined time limit. If the data processing is not completed within the given time, the value form cannot be downloaded. This issue is also attributed to the type of output file generated by the server, which is an xls file instead of a csv file. Xls files are heavier on the system compared to csv files.

Based on the results of research analyzing user satisfaction levels, as many as 61.8% were satisfied with the performance provided by SIKADU and it could be easily accessed via cellphone by users. However, users find it difficult to input courses and download course forms, so significant improvements are needed to make things easier for users and increase the level of users accessing SIKADU.

V. Conclusion

Based on the testing conducted, the following conclusions can be drawn: (1) All five dimensions of EUCS (End-User Computing Satisfaction) have been validated and shown to be reliable in measuring the satisfaction of the integrated academic information system application used by UIN KH Abdurrahman Wahid Pekalongan. (2) There is a significant variation in satisfaction levels among the three groups: students, lecturers, and educational staff. (3) This variation is observed specifically between students and lecturers, as well as between students and educational staff. However, there is no significant difference in satisfaction between lecturers and educational staff.

The presence of these variations in satisfaction levels have prompted the campus to pursue continuous improvement. To address the issues identified through detailed analysis of complaints and suggestions, the campus has identified specific measures for enhancement: a) Fast and Stable Access to SIKADU. One of the key areas of improvement is providing fast and stable access to SIKADU, especially during the KRS (Course Registration) input period. Despite the division of access days for each faculty, there have been numerous complaints about slow server speed. This indicates that during peak times, when many users are trying to access the system simultaneously, the server experiences performance issues, resulting in delayed responses and frustrated users. Improving server speed and responsiveness during critical periods is essential to ensure a smoother and more efficient user experience. b) Urgent Server Upgrade. The current servers are deemed less capable and are under heavy strain while serving the academic community. This suggests that the existing infrastructure might be outdated or insufficient to handle the increasing demands of users. As a result, the servers might struggle to cope with the load, leading to performance bottlenecks. The campus has recognized the need for an urgent server upgrade to accommodate the growing user base and ensure a more reliable and responsive platform. In conclusion, the campus is taking proactive steps to address the identified issues and enhance user satisfaction with SIKADU. By improving server speed and upgrading the infrastructure, the campus aims to provide a better user experience, especially during critical periods like course registration. This commitment to continuous improvement demonstrates the campus's dedication to meeting the needs of its academic community and ensuring an efficient and reliable digital platform for academic processes.

Conducting a thorough review of the existing database. There is a high possibility that the slow server is also affected due to suboptimal database arrangement. Students who access SIKADU from home face difficulties compared to those who use the campus wifi connection. They do not get the schedule and courses they want, which can negatively impact their academic progress. The latest version of SIKADU does not allow monitoring of all lecturers' schedules, making it difficult to find the required lecturer. In contrast, the old version of SIKADU could be used to view the desired lecturer schedule. The latest version of SIKADU does not provide access to the previous year's attendance history. There is a lack of synchronization between SIKADU data and data at the reception treasurer, making it difficult to determine the actual number of students.

There are still certain limitations to this research, even though this research has made every effort to be well designed in order to meet the research objectives. This research was exclusively conducted on users of SIKADU UIN KH Abdurrahman Wahid Pekalongan. This research solely utilizes the EUCS method to analyze user satisfaction of the SIKADU application and still has a restricted number of variables. Based on this research, we anticipate that future research can incorporate a combination of research models and expand the range of variables, as well as increase the quantitative research population, in order to yield even more improved results.

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