

User Satisfaction with the Web-Based Room Reservation System (SIANCEU) at Library and Gallery of Bogor

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ABSTRACT

Purpose Research. To assess the Bogor City Library and Gallery's website-based room reservation system (SIANCEU) user satisfaction using the End User Computing Satisfaction (EUCS) Model. **Research Method.** This research was conducted from August to October 2023. Quantitative descriptive method is applied in this research. Questionnaires as data gathering technique and distributed to 54 respondents. **Analysis Data.** Cronbach's Alpha was used to assess the questionnaire's validity and reliability using IBM SPSS V26. **Results.** The level of library satisfaction with SIANCEU is classified as very satisfied. The Content dimension has an average score of 3.21, Accuracy 3.31, Format 3.27, Ease of Use 3.33, and Timeliness 3.27. The overall average score is 3.28, which is on the interval scale of 3.28 - 4.00, indicating a satisfaction level of "very satisfied". **Conclusions.** Bogor City Library and Gallery users are very satisfied with the SIANCEU online room reservation system.

Keywords: *User Satisfaction; Room Reservation System; Website, End User Computing Satisfaction.*

A. INTRODUCTION

Information systems are a technological element that cannot be separated in today's information development. Information systems result from a combination of technology, individuals, and organizational business procedures focused on collecting, processing, storing, and distributing useful information, especially those related to decisions and actions. Information systems as a combination of information technology, individuals, and business procedures that work together to achieve organizational goals (Caldas, 2018). Information systems include technological aspects and involve people and business processes to ensure the information generated is useful and supports the organization's needs.

Along with the development of information technology today, information systems are made web-based because the broad nature of the website allows all individuals to quickly and easily access information anywhere. Web-based information systems minimize the allocation of time required because the process

is computerized (Zurna et al., 2022). This technology is adopted by libraries in various services, including the room reservation service.

The implementation of a web-based room reservation information system in the library is not only beneficial for the users but also for the library staff. This system can prevent the monopoly of using the room throughout the day by the same user, the difficulty of accessing the room at certain times, and the act of leaving personal belongings to avoid the room being used by others (Atkinson & Lee, 2018). A robust system that can free library staff from the time-consuming process of manually managing room reservations (Xuan, 2021).

One library that has implemented this service is the Bogor City Library and Gallery. This library provides services regarding library opening hours, information about what can and cannot be done in the library, what activities are in the library, what rooms can be reserved, and procedures for making room reservations in the library. The Bogor City Library and Gallery has experienced an increase in the average number of visitors daily. The number of visitors per day reaches approximately 500 people; with the increasing number of visitors and the use of library room facilities, the Bogor City Library and Gallery began implementing a website-based room reservation information system called SIANCEU.

Satisfaction can have a positive impact on increasing usage because it will tend to use the services provided more often, be able to build long-term relationships with institutions or organizations and have positive brand perceptions so that it can be the key to maintaining the success of an organization and institutions or organizations can create mutually beneficial relationships in building a positive image (Fikri et al., 2016). Thus, it is necessary to know the quality of an information system. It can help libraries provide better services for users because it will affect users who can easily and quickly access their needs.

The EUCS model is a framework for assessing user satisfaction regarding a system application. It draws upon user experiences to deliver an overall evaluation of information system users, specifically about how effectively information systems address the needs associated with library room reservations. This evaluation considers the system's functionality and the end-users satisfaction (Doll & Torkzadeh, 1988). Analyses performed through the EUCS model underscore the significance of end-user satisfaction with technological elements (Kartika & Labibah, 2023). End User Computing Satisfaction assessment includes five essential components: content, accuracy, format, ease of use, and timeliness (Doll & Torkzadeh, 1988). User satisfaction is a significant indicator of the successful implementation of information system development (Bailey & Pearson, 1983).

Studies of library systems also use the EUCS model to measure user satisfaction. Barrus and Fathurrahman (Barus & Fathurrahman, 2024) measured the level of user satisfaction with the UIN North Sumatra Mobile Library Application using EUCS with the result of "satisfied". Meanwhile, EUCS was also used to measure satisfaction with the OPAC of the Ida Bajumi Wahab University Library (IBA) Palembang, and the results showed that the highest level of satisfaction (4.28) was shown in the content aspect of the OPAC (Putri et al., 2021). Another use of EUCS was carried out to measure the level of satisfaction of Buddhi Dharma University repository users with the highest results, namely in the content and

ease of use indicators (Karauna, 2022). The measurement of the room reservation system has not been applied to assess user satisfaction with the library's system. Thus, this study intends to gauge user satisfaction with the website-based SIANCEU Room Reservation System at the Bogor City Library and Gallery in light of the gap analysis and background information provided above.

B. METHODS

The research employs a descriptive quantitative approach. descriptive approach is It aims to find out the value of independent variables, whether one variable or more (independent), regardless of comparing or attributing to other variables (Sugiyono, 2018). The population of this study was 119 of users who made room reservations at the Bogor City Library and Gallery in the last three months, from August to October 2023. The research sample was 54 users obtained using the Slovin formula with a 10% margin of error:

$$n = \frac{N}{N + (e)^2}$$

Description:

N : Population size
n : Sample size or number of respondents
e : Percentage allowance for error accuracy

The research data was obtained using a questionnaire distributed to a predetermined number of research samples. The questionnaires were administered using a 4-point Likert scale, ranging from 1 to 4. This scale order aims to determine the level of user satisfaction using the End User Computing Satisfaction (EUCS) model. The Likert scale consists of two types of statements: positive and negative. Positive statements are scored 4, 3, 2, 1, while negative statements are scored 1, 2, 3, 4. The author has 20 positive statements and 1 negative statement on the questionnaire. The interval scale in the study is 0.75. Therefore, the resulting ranges and categories are depicted in Table 1 below:

$$\text{Interval Scale} = a(m-n) : b$$

Description:

a : number of characters
m : criteria on the maximum score
n : criteria on the minimum score
b : class range

The interval scale in the study is 0.75. Therefore, the resulting ranges and categories are depicted in Table 1 below:

Table 1 Interval Scale

No	Scale	Category
1.	3,28 – 4,00	Very Satisfied
2.	2,52 – 3,27	Satisfied
3.	1,00 – 2,51	Dissatisfied
4.	0,75 – 1,00	Very Dissatisfied

The data collected through the questionnaire was processed using SPSS version 26. In the validity test, the statements in the questionnaire will be considered valid if r count is greater than r table. In this study there were 54 respondents (N) with a significance of 0.01. Then the r table was found at $df = (N-2) = 54-2 = 52$, and the significance of 0.05 was 0.268. Table 2 below shows the validity test results.

Tabel 2. Validity Test Result

No	Statements	Pearson Correlation/	R table	Interprestasi
1	CON1	0,788	0,268	valid
2	CON2	0,357	0,268	valid
3	CON3	0,733	0,268	valid
4	CON4	0,630	0,268	valid
5	ACC1	0,788	0,268	valid
6	ACC2	0,394	0,268	valid
7	ACC3	0,736	0,268	valid
8	ACC4	0,794	0,268	valid
9	FOR1	0,754	0,268	valid
10	FOR2	0,676	0,268	valid
11	FOR3	0,816	0,268	valid
12	FOR4	0,769	0,268	valid
13	EOU1	0,833	0,268	valid
14	EOU2	0,828	0,268	valid
15	EOU3	0,734	0,268	valid
16	EOU4	0,789	0,268	valid
17	EOU5	0,698	0,268	valid
18	TIM1	0,736	0,268	valid
19	TIM2	0,651	0,268	valid
20	TIM3	0,643	0,268	valid
21	TIM4	0,818	0,268	valid

The reliability of the questionnaire can be considered adequate if the calculated correlation coefficient (r) is higher than the critical value (r table).

Tabel 3. The Results of Reliability Test

<i>Reliability Statistic</i>		
The Results of Cronbach's	<i>N of items</i>	Description
0,945	2	Reliable

Based on Table 3 above, it can be explained that all expressions in the questionnaire on the variable library satisfaction with room reservations on the SIANCEU website are reliable or have consistent properties, because the Cronbach's alpha value is higher than the significant level, namely $0.945 > 0.60$. Thus, the statements in the questionnaire have great consistency and reliability.

C. RESULT AND DISCUSSION

I. Content

Table 4. Results of Content Dimension Statement

No.	Statement	Sco
1	The SIANCEU website provides satisfaction when used	3,48
2	The SIANCEU website provides information that is easy to understand	2,81
3	The SIANCEU website provides complete information	3,26
4	The content provided by the SIANCEU Website is helpful	3,30
Total		12,8
Average Score		$12,85 : 4 = 3,21$

In the content dimension listed in Table 4, respondents have an average score of 3.21. Respondents stated that the SIANCEU website has provided satisfaction when used. The SIANCEU website also provides complete information, is easy to understand, and can help users access and use the SIANCEU website. The largest score is statement 1, 3.48, with a very satisfied category. The lowest score is statement number 2, with a score of 2.81 in the satisfied category. Through the website media, the library provides information and services to its users (Fahrizandi, 2020). The needs of users who can be met by accessing content are behind the emergence of user satisfaction (Pujiastuti & Prabowo, 2024). Based on the scores obtained, users are satisfied with the content provided on the SIANCEU. SIANCEU website not only provides complete information, but the users also find the information provided helpful for them. Users can understand the content easily. However, the last findings obtained the lowest score for this category. There is a need to enhance the clarity of information presentation for a better understanding.

2. Accuracy

Table 5. Results of Accuracy Dimension Statement

No	Statement	Sco
1.	Every menu on the SIANCEU website that you click displays the appropriate display	3,4 6
2.	The SIANCEU website often produces incorrect output	3,1 3
3.	The SIANCEU website displays accurate information	3,33
4.	The SIANCEU website displays information that can be trusted	3,33
Total		13,25
Average Score		13,25 : 4 = 3,31

Based on Table 5 above, the accuracy dimension obtained an average score of 3.31 and was included in the satisfied category. The accuracy dimension in this study shows the same results as previous research analyzing the library website of the Ministry of Education of the Republic of Indonesia, which is “satisfied” with a score of 3,07 (Azwar et al., 2020). The highest score in this dimension is the suitability of the display with the menu chosen by the user, which is 3.46, which is included in the very satisfied category. These results indicate that the menu and content of the SIANCEU website are accurate. Pujiastuti and Prabowo (2024) state that the suitability of the title and content can set a benchmark regarding the accuracy of information on the website. Meanwhile, the lowest score in this dimension is a statement about website output that is often wrong. The resulting score on this statement is 3.13 or satisfied.

3. Format

Table 6. Results of Format Dimension Statement

No	Statement	Sco
1	SIANCEU website display has a clear format	3,3 0
2	SIANCEU website display design provides attractive colors	3,1 9
3	The SIANCEU website displays a format that is easy to understand	3,3 0
4	The output displayed on the SIANCEU website runs effectively	3,3 0
Total		13,0
Average Score		13,09 : 4 = 3,27

The format dimension in Table 6 consists of four statements, and all of them produce an average of 3.27 which is included in the satisfied category. This dimension shows the same results as previous research analyzing the IAIN Bukittinggi E-Library Information System, which is satisfied (Hamzah et al., 2022). Three of the four statements in this dimension have the same score, namely, 3.30 or very satisfied category. Based on these results, the SIANCEU website has provided a satisfying experience to users in making room reservations. A library-oriented website will provide a positive experience with features and content that are easy for users to understand (Ma'rifah et al., 2023). Meanwhile, the lowest score in this dimension is 3.19 with a satisfied category obtained from statements related to website display with attractive colors.

4. Ease of Use

Table 7. Results of Ease-of-Use Dimension Statement

No	Statement	Sco
1.	SIANCEU website is easy to use	3,3 9
2.	Features on the SIANCEU Website are easy to use	3,3 7
3.	The features on the SIANCEU Website are useful and can be applied to the website	3,2 8
4.	The SIANCEU website makes it easy for users to get information	3,3 0
5.	This SIANCEU website is user-friendly	3,3
Total		16,6
Average Score		$16,65 : 5 = 3,33$

Table 7 above is the result of the Ease-of-Use dimension. Five statements for this dimension with scores indicate a very satisfied category. The average result of this dimension is 3.33 and is included in the very satisfied category. The highest score is obtained from the statement about the ease of using the SIANCEU website, which is 3.39. Based on this score, library users can generally use the SIANCEU Web easily. A website must be easy to use by its users because it can support library and user interaction remotely. This is supported by Maxwell and Hauff's (2021) statement that contemporary web technologies provide an easy-to-use yet powerful framework that can capture almost all user interactions on web pages. Meanwhile, the lowest score on this dimension resulted from the statement, "The features on the SIANCEU Website are useful and can be applied to the website", namely 3.28.

5. Timeliness

Table 8. Results of Timeliness Dimension Statement

No	Statement	Sco
1	The SIANCEU website processes the information users need quickly	3,3 1
2	SIANCEU website displays the latest information	3,1 9
3	SIANCEU website provides satisfaction with fast response times	3,2 6
4	The SIANCEU website provides information when needed	3,3 5
Total		13,1
Average Score		$13,1 : 4 = 3,27$

Table 8 is the result of the Timeliness dimension statement. This dimension consists of four statements that produce an average score of 3.27 and are included in the satisfied category. Timeliness is the speed of the information system in providing information, the currency of information, and the effectiveness and efficiency of the information offered by a library information system will cause a relationship with library satisfaction (Islamy, 2019).

The highest score in this dimension is 3.35, or very satisfied. This result was obtained from the statement, "The SIANCEU website provides information when needed". Media created to present information and services, such as websites, can fulfill the need for information and services (Fandi & Imaniawan, 2020). For the lowest score, the statement "The SIANCEU website displays the latest information" received a score of 3.19 or the satisfied category. The Timeliness dimension shows that the SIANCEU website has shown a speed performance that satisfies users in making space reservations at the Bogor City Library and Gallery.

E. CONCLUSION

Based on the research results described above, the SIANCEU website for room reservation services produces an average score of 3.28 with a very satisfied category. These results are obtained from five dimensions in the EUCS model. The highest score obtained from the ease of use dimension is 3.33, and the lowest in the content dimension is 3.21. Overall, SIANCEU provides convenience and benefits for users in making website-based room reservations.

With this study, what needs to be improved by the Bogor City Library and Gallery can be identified for service improvement. Based on the research results, some aspects must be improved based on the lowest score in each dimension. In managing the SIANCEU Website, the Bogor City Library and Gallery needs to make the information on the website easier to understand, improve the website so that the output produced is by user input, provide a more attractive website display, and update the information on the website.

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