

Usability testing analysis of the Lhokseumawe district attorney's office website using nielsen's metrics for user experience evaluation

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ABSTRACT

The Lhokseumawe district attorney's office is a law enforcement institution that utilizes a website as an essential medium for delivering public information and services. To ensure its optimal function, this research aims to evaluate the website's usability quality level. This study adopts the Usability Testing method with a quantitative descriptive approach, based on the five metrics proposed by Jakob Nielsen: learnability, efficiency, memorability, errors, and user satisfaction. Data collection involved direct observation of 10 users performing core task scenarios, supplemented by questionnaires and interviews. The test results indicate that the website generally meets several usability aspects. However, there are still significant shortcomings in the areas of efficiency and user satisfaction. Quantitatively, the website's total usability score is 87.5%, with the average satisfaction score using the System Usability Scale (SUS) being 65%. Based on these findings, this study recommends improvements to the navigation structure and user interface (UI) design to enhance the quality of digital services and provide a better user experience (UX). The results of this study are expected to serve as a reference for the website administrators of the Lhokseumawe District Attorney's Office for further system development.

Keywords: Website, Usability Testing, Nielsen, User Experience, Public Service.

ABSTRAK

Kejaksaan Negeri Lhokseumawe adalah institusi penegak hukum yang menggunakan website sebagai sarana penting untuk menyajikan informasi dan layanan publik. Untuk menjamin fungsi optimalnya, penelitian ini bertujuan untuk mengevaluasi tingkat kualitas kegunaan (usability) website tersebut. Studi ini mengadopsi metode Usability Testing dengan pendekatan kuantitatif deskriptif berdasarkan lima metrik dari Jakob Nielsen, yang meliputi: kemampuan dipelajari (learnability), efisiensi (efficiency), kemampuan diingat kembali (memorability), tingkat kesalahan (errors), dan kepuasan pengguna (satisfaction). Pengumpulan data dilakukan melalui observasi langsung terhadap 10 pengguna yang menjalankan skenario tugas, didukung dengan kuesioner dan wawancara. Hasil pengujian menunjukkan bahwa secara keseluruhan, website telah memenuhi beberapa aspek usability. Namun, terdapat kekurangan signifikan pada elemen efisiensi dan kepuasan pengguna. Secara kuantitatif, nilai usability total website adalah 87,5%, dengan skor satisfaction menggunakan System Usability Scale (SUS) rata-rata 65%. Berdasarkan temuan tersebut, penelitian ini merekomendasikan perbaikan pada struktur navigasi dan desain antarmuka (user interface) untuk meningkatkan kualitas layanan digital dan memberikan pengalaman pengguna (User Experience) yang lebih baik. Hasil studi ini diharapkan menjadi acuan bagi pengelola website Kejaksaan Negeri Lhokseumawe untuk pengembangan sistem lebih lanjut.

Kata kunci: Website, Usability Testing, Nielsen, User Experience, Layanan Publik.

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1. INTRODUCTION

The use of information technology has become increasingly essential in modern society. Information technology facilitates various daily activities, thereby enhancing effectiveness and efficiency in work, which ultimately leads to greater productivity among the public [1]. As technology users, people expect to obtain complete, up-to-date, and easily accessible information. This is where the role of web-based information technology becomes highly important [2]. According to the Directorate of Information Security, Directorate General of Informatics Applications, and the Ministry of Communication and Information Technology (2011), websites are currently among the most frequently accessed information services by internet users worldwide. As one of the primary sources of information, a website must be designed to handle numerous user requests reliably [3].

At present, many government institutions, both at higher and lower administrative levels, have optimized their public services through web-based platforms containing general institutional information. Such information typically includes an overview of the institution, its vision and mission, organizational structure, leadership profiles, departmental details, agendas, regulations, news, and galleries containing photos or videos related to institutional activities. Based on Presidential Instruction No. 3 of 2003 on the national policy and strategy for e-government development, public institutions are granted the authority to enhance public services through communication and information networks [4].

The District Attorney's Office of Lhokseumawe has developed a website at <https://kejari-lhokseumawe.kejaksaan.go.id>, which is expected to provide accurate information, accelerate public services, and facilitate information exchange among departments within the Lhokseumawe community. Information plays a vital role in supporting the sustainability and development of institutional systems. Within an institution, information serves multiple purposes, such as assisting leaders in making strategic decisions. A well-designed information system should deliver meaningful and relevant information to its users. Usability is defined as the extent to which a product can be used by specific users to achieve designated goals effectively, efficiently, and with satisfaction in a specified context of use. Based on this definition, usability reflects the benefits gained by users through an application to accomplish their tasks or obtain the desired information [5].

Evaluation is one of the essential efforts aimed at developing and improving service quality. Referring to Regional Regulation No. 9 of 2012 concerning Public Services, service providers are required to conduct regular performance assessments as an evaluation tool to enhance the quality of public services [6].

Several previous studies have employed Nielsen's usability model to evaluate the quality and effectiveness of various websites. The first study by Kurniaty Meiliani Gunawan and Muhamad Fuat Asnawi (2022) conducted usability testing on the Leksono sub-district web portal. The results showed the following scores based on Nielsen's model: learnability 83.06%, efficiency 83.13%, error 79.99%, memorability 81.32%, and satisfaction 87.42%, with an overall average of 82.87% [7]. The second study, conducted by Nur Aldien Ramadhania et al. (2021), focused on usability testing of the D'Bucket Karawang website and revealed that satisfaction was the most influential factor affecting user experience [8]. Another study by Anisa Afti Agustina et al. (2021) evaluated the environmental agency web portal of Wonosobo Regency, concluding that the system performed well based on Nielsen's model assessment [9]. Similarly, Sirojul Munir and Mochamad Wisnu Nugroho (2022) conducted an analysis and evaluation of school website design using Nielsen's usability model and reported an average score of 4.03, indicating that the overall design quality was good [10].

While these studies demonstrate the effectiveness of Nielsen's usability model for evaluating web-based systems, most of them focus on general, educational, or regional government websites. Limited attention has been given to usability evaluation within judicial or

law enforcement institutions such as the District Attorney's Office. This gap highlights the need for usability studies in this domain to ensure that such institutional websites effectively disseminate public legal information while maintaining accessibility, efficiency, and user satisfaction.

Therefore, this study aims to evaluate the usability and service quality of the District Attorney's Office of Lhokseumawe website from the user's perspective. The evaluation employs a usability testing approach based on Nielsen's metrics, which include efficiency, satisfaction, learnability, memorability, and error rate. The use of these metrics aims to provide a comprehensive overview of user experience, identify usability barriers, and establish a strong foundation for designing system improvement strategies. The findings of this study are expected to serve as a valuable reference for enhancing website quality and ensuring that it effectively meets public information needs. Furthermore, the research contributes practical benefits by offering actionable insights for government institutions to optimize digital public service platforms, improve user engagement, and support the realization of transparent and citizen-oriented e-government services.

2. METHODOLOGY

2.1 Type of Research

This study employs a descriptive quantitative research design aimed at measuring the usability level of the District Attorney's Office of Lhokseumawe website based on the five aspects proposed by Jakob Nielsen, namely learnability, efficiency, memorability, errors, and satisfaction. The quantitative approach is used to obtain numerical data that can be objectively analyzed to describe the level of ease of use, efficiency, and user satisfaction with the website. Through the usability testing method, this research is expected to provide a comprehensive overview of the quality of user interaction with the system and identify areas that need improvement to enhance the overall user experience.

2.2 Data Collection Technique

Data were collected through direct testing with users of the District Attorney's Office of Lhokseumawe website by applying task scenarios that represent the main activities performed on the website, such as:

1. Accessing the homepage and understanding the navigation structure.
2. Viewing the profile and services information of the District Attorney's Office.
3. Downloading public documents.
4. Completing or accessing public service forms.

During the testing process, researchers observed user behavior, including the time required to complete each task, the number of errors made, and the success rate in accomplishing the scenarios. In addition, supporting data were collected through questionnaires and interviews to understand users' perceptions of ease of use, efficiency, and satisfaction while interacting with the website. The instruments used in this study included:

1. Observation sheets to record user performance during testing.
2. A usability questionnaire based on Jakob Nielsen's five usability metrics.
3. Short interviews to explore users' qualitative experiences.

2.3 Tools and Technology

This study employed several tools and technologies to support the data collection and analysis process, including:

1. A computer or laptop with a stable internet connection, used as the primary testing medium.
2. A web browser (Google Chrome or Mozilla Firefox) to access the official website of the District Attorney's Office of Lhokseumawe.

3. A screen recording application to capture user activities while performing the scenario-based tasks.
4. Google Forms or Microsoft Excel as media for distributing questionnaires and recording the results.

2.4 Testing Procedure

The testing procedure was conducted systematically through the following steps:

1. Determining usability indicators based on Jakob Nielsen's five metrics: *Learnability*, *Efficiency*, *Memorability*, *Errors*, and *Satisfaction*. Several formulas were applied to measure each metric accordingly.

$$\text{Learnability} = \frac{\text{Success task} + (\text{Partial success} \times 0,5)}{\text{Total task}} \times 100\% \quad (1)$$

$$\text{Efficiency} = \frac{\sum_{j=1}^R \sum_{i=1}^N n_{ij} t_{ij}}{\sum_{j=1}^R \sum_{i=1}^N t_{ij}} \times 100\% \quad (2)$$

$$\text{Memorability (\%)} = \frac{\text{Perfect memory} + (\text{Partial} \times 0,5))}{\text{Total task}} \times 100\% \quad (3)$$

$$\text{Error rate} = \frac{\text{total defects}}{\text{total opportunities}} \quad (4)$$

$$\text{Satisfaction} = \frac{\sum_{i=1}^n S_i}{i} \quad (5)$$

$$\text{Usability (\%)} = \frac{(\text{Learnability} + \text{Efficiency} + \text{Memorability} + \text{Errors} + \text{Satisfaction})}{5} \quad (6)$$

2. Developing task scenarios that represent the main functions of the District Attorney's Office of Lhokseumawe website.
3. Selecting test participants, consisting of users who represent the website's target audience, such as members of the general public and students.
4. Conducting usability testing, where each participant was asked to complete the predefined task scenarios while being observed by the researchers.
5. Recording and documenting test results, including task completion time, number of errors, success rate, and user feedback obtained through questionnaires and interviews.
6. Analyzing quantitative and qualitative data to assess the usability level for each metric.
7. Formulating improvement recommendations based on the findings, particularly focusing on aspects that were not yet optimal, such as efficiency and user satisfaction.

3. RESULT AND DISCUSSION

3.1 Determination of Respondents

Respondents were selected randomly by choosing ten individuals from the public who possess adequate technological literacy and are capable of accessing the official website services of the District Attorney's Office of Lhokseumawe.

3.2 Task Scenarios

In this usability testing activity, participants were given a series of task scenarios designed based on the actual features and content available on the official website of the District Attorney's Office of Lhokseumawe. The main objective of this testing was to evaluate how easy, efficient, and satisfying the user experience was when accessing various types of information and services provided on the site.

Table 1. Task Scenarios

Task	Description
ST 1	Please find and read the information regarding the profile of the District Attorney's Office of Lhokseumawe.
ST 2	You would like to know what legal services are available. Locate the page that displays the list of legal services.
ST 3	Please search for and read the latest news or articles available on this website.
ST 4	Imagine you plan to visit the prosecutor's office. Find their address and telephone number.
ST 5	You wish to submit a public complaint. Locate and access the complaint submission page.
ST 6	Find information about the organizational structure or the list of officials at the District Attorney's Office of Lhokseumawe.
ST 7	You are looking for legal reading materials or references in the E-DATUN service section. Please find and open one of the available e-books, then read its contents.
ST 8	You intend to contact the District Attorney's Office of Lhokseumawe to inquire about legal service procedures. Find the "Contact Us" menu and fill out the provided form to send a message (submission not required).
ST 9	As a citizen, you wish to provide feedback or suggestions regarding public services at the District Attorney's Office of Lhokseumawe. Locate the feedback or suggestion page and fill out the available form (submission not required).
ST 10	Find the "Related Links" button or menu on the website of the District Attorney's Office of Lhokseumawe. Then, click on one of the links leading to the Attorney General's Office, Lhokseumawe District Court, Aceh High Prosecutor's Office, or Lhokseumawe Police Office, and ensure the intended page opens correctly.

3.3 Testing of the Learnability Aspect

The learnability aspect in this evaluation aims to assess how easily users can learn and understand the system during their first interaction. Task completion results were classified into three categories: if a participant successfully completed a task without any obstacles, it was labeled as "Yes" with a weight of 100%; if the task was not completed at all, it was labeled as "No" with a weight of 0%; and if the task was partially completed, it was labeled as "Partial" with a weight of 50%. The following table presents the analytical metrics for the learnability aspect.

Table 2. Learnability Aspect Analysis Metrics

Task	Description	Evaluation Indicators
ST1	Please find and read information about the profile of the District Attorney's Office of Lhokseumawe.	<ul style="list-style-type: none"> – The respondent understands how to complete the task. – The respondent can complete the task easily without assistance. – The respondent successfully completes the task.
ST2	You want to know what legal services are available. Find the page that displays these legal services.	<ul style="list-style-type: none"> – The respondent understands how to complete the task. – The respondent can complete the task easily without assistance. – The respondent successfully completes the task.

ST3	Please find and read the latest news or articles available on this website.	<ul style="list-style-type: none"> – The respondent understands how to complete the task. – The respondent can complete the task easily without assistance. – The respondent successfully completes the task.
ST4	Imagine that you plan to visit the District Attorney's Office. Find their address and phone number.	<ul style="list-style-type: none"> – The respondent understands how to complete the task. – The respondent can complete the task easily without assistance. – The respondent successfully completes the task.
ST5	You would like to submit a public complaint. Find and access the complaint submission page.	<ul style="list-style-type: none"> – The respondent understands how to complete the task. – The respondent can complete the task easily without assistance. – The respondent successfully completes the task.
ST6	Find information about the organizational structure or the officials working at the District Attorney's Office of Lhokseumawe.	<ul style="list-style-type: none"> – The respondent understands how to complete the task. – The respondent can complete the task easily without assistance. – The respondent successfully completes the task.
ST7	You are looking for legal reading materials or references in the E-DATUN service section. Please locate and open one of the available e-books and read its contents.	<ul style="list-style-type: none"> – The respondent understands how to complete the task. – The respondent can complete the task easily without assistance. – The respondent successfully completes the task.
ST8	You wish to contact the District Attorney's Office of Lhokseumawe to inquire about legal service procedures. Find the 'Contact Us' menu, then fill out the form provided to send a message (submission is not required).	<ul style="list-style-type: none"> – The respondent understands how to complete the task. – The respondent can complete the task easily without assistance. – The respondent successfully completes the task.
ST9	As a citizen, you would like to provide feedback or suggestions regarding public services at the District Attorney's Office of Lhokseumawe. Find the feedback page and fill out the form provided (submission is not required).	<ul style="list-style-type: none"> – The respondent understands how to complete the task. – The respondent can complete the task easily without assistance. – The respondent successfully completes the task.
ST10	Locate the 'Related Links' button or menu on the website of the District Attorney's Office of Lhokseumawe. Then click one of the links leading to the Attorney General's Office (Kejagung), Lhokseumawe District Court (PN Lhokseumawe), Aceh High	<ul style="list-style-type: none"> – The respondent understands how to complete the task. – The respondent can complete the task easily without assistance. – The respondent successfully completes the task.

	Prosecutor's Office (Kejati Aceh), or Lhokseumawe Police Department (Polres Lhokseumawe), and ensure that the target page opens properly.	
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Based on the tests conducted on 10 respondents, the data obtained for the learnability metric are as follows:

Table 3. Learnability Metric Analysis Data

User	U1	U2	U3	U4	U5	U6	U7	U8	U9	U10	Total
Yes	29	26	27	25	27	29	29	30	30	30	282
Partial	1	1	3	2	0	1	1	0	0	0	9
No	0	3	0	3	3	0	0	0	0	0	9
Total											300

Based on the table above, 30 task criteria were evaluated with 10 respondents per task, resulting in a total of 300 trials. From these trials, 240 tasks were successfully completed, 19 tasks were not completed, and 39 tasks were partially completed. The total of 19 incomplete tasks was excluded from the calculation because tasks that were not completed received a weight of 0%; therefore, $19 \times 0\% = 0$.

The success rate is used to assess the learnability aspect of an application from the user's perspective. The learnability aspect serves as an indicator of how easily a system can be understood by users, particularly those who are interacting with the system for the first time. The learnability value is calculated using Equation (1). Based on the data obtained, the learnability value for the District Attorney's Office of Lhokseumawe website is as follows:

$$= \frac{240 + (39 \times 0,5)}{300} \times 100\% = 86,5\%$$

Based on the results of the above calculation, it can be concluded that the usability testing conducted with 10 respondents from the general public shows that the learnability level of the District Attorney's Office of Lhokseumawe website is 86.5%.

3.4 Efficiency Aspect Testing

Testing on the efficiency aspect aims to measure how quickly users can complete a given task within the system or application being evaluated. The test results produced data as presented in Table 4.

Table 4. Summary of Task Scenario Completion Time

User	ST 1		ST 2		ST 3		ST 4		ST 5		ST 6		ST 7		ST 8		ST 9		ST 10	
	N	T	N	T	N	T	N	T	N	T	N	T	N	T	N	T	N	T	N	T
U1	1	23	1	34	1	30	1	25	1	21	1	17	0	25	1	15	1	17	1	14
U2	1	27	1	30	1	28	1	24	1	17	1	17	0	25	0	16	1	16	1	12
U3	1	32	1	31	1	21	1	18	1	24	1	19	1	23	1	14	1	20	1	8
U4	1	34	1	32	1	29	1	27	1	20	1	21	0	20	1	12	1	15	1	11
U5	1	27	1	26	1	28	1	21	0	19	1	18	0	18	1	13	1	21	1	13
U6	1	25	1	30	1	32	1	26	1	20	1	23	0	21	1	14	1	14	1	13
U7	1	18	1	23	1	20	1	16	1	19	1	21	1	18	1	12	1	10	1	11
U8	1	21	1	23	1	19	1	17	1	20	1	18	1	21	1	15	1	16	1	12
U9	1	15	1	16	1	14	1	17	1	11	1	15	1	18	1	8	1	11	1	7

U10	1	15	1	14	1	16	1	16	1	13	1	12	1	17	1	10	1	11	1	8
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The efficiency value was measured using Equation (2). Based on the data presented in Table 4, the measurement results are shown in Table 5.

Table 5. Calculation of Efficiency Metric Aspect

Task	ST1	ST2	ST3	ST4	ST5	ST6	ST7	ST8	ST9	ST10
Score	100	100	100	100	98.992	100	47.087	87.597	100	100
Average (%)	93.368									

Based on the calculation results presented in the table above, the website of the District Attorney's Office of Lhokseumawe has an efficiency level with an overall relative efficiency score of 93.368.

3.5 Memorability Aspect Testing

The memorability aspect in usability testing aims to evaluate how well users can recall how to use the system after not interacting with it for a certain period of time. In this study, the assessment was divided into three categories, as shown in Table 6.

Table 6. Memorability Evaluation Method

Result Category	Description	Weight Score
Perfect Recall	The user completes the task immediately without errors or assistance.	100%
Partial Recall	The user completes the task with minor errors or requires minimal thinking time.	50%
No Recall	The user is unable to complete the task or requires significant assistance.	0%

In this test, respondents were asked to repeat several task scenarios that they had previously completed after a certain time interval. The objective was to determine whether users were still able to remember the navigation steps and interactions required to complete the tasks without experiencing significant confusion. The results of this test are presented in Table 7.

Table 7. Memorability Metric Data Analysis

User	U1	U2	U3	U4	U5	U6	U7	U8	U9	U10	Total
Yes	29	26	27	25	27	29	29	30	30	30	282
Partial	1	1	3	2	0	1	1	0	0	0	9
No	0	3	0	3	3	0	0	0	0	0	9
Total											300

The memorability score was calculated using Equation 3. Based on the data presented in Table 7, the memorability values were obtained as shown in Table 8.

Table 8. Calculation of the Efficiency Metric Aspect

Task	U1	U2	U3	U4	U5	U6	U7	U8	U9	U10
Score	98.33	88.33	95	86.67	90	98.33	98.33	100	100	100
Average (%)	95.5 %									

3.6 Testing of the Errors Aspect

The errors aspect in usability testing aims to evaluate how frequently users make mistakes while interacting with the system and how severe the impact of those mistakes is. In this study, the error testing scenarios are presented in Table 8.

Table 8. Error Aspect Scenarios

No	Scenario	Status
1	Please find and read information about the profile of the District Attorney's Office of Lhokseumawe.	YES/NO
2	You want to find out what legal services are available. Locate the page that displays these legal services.	YES/NO
3	Please find and read the latest news or articles available on this site.	YES/NO
4	Imagine you plan to visit the District Attorney's Office. Find their address and telephone number.	YES/NO
5	You wish to submit a public complaint. Find and access the complaint page.	YES/NO
6	Find information about the organizational structure or the officials at the District Attorney's Office of Lhokseumawe.	YES/NO
7	You are looking for legal reading materials or references in the <i>E-DATUN</i> service section. Please find and open one of the available e-books, then read its content.	YES/NO
8	You would like to contact the District Attorney's Office of Lhokseumawe to inquire about the procedures for legal services. Find the "Contact Us" menu and try filling out the available form to send a message (no actual submission required).	YES/NO
9	As a citizen, you wish to provide feedback regarding public services at the District Attorney's Office of Lhokseumawe. Find the "Suggestions and Feedback" page, then try filling out the form provided (without actually submitting it).	YES/NO
10	Locate the "Related Links" button or menu on the website of the District Attorney's Office of Lhokseumawe. Then, click one of the links directing to the Attorney General's Office, Lhokseumawe District Court, Aceh High Prosecutor's Office, or Lhokseumawe Police Department, and ensure that the intended page opens successfully.	YES/NO

The score for the *error* metric is calculated using Equation (4). Based on the test results involving 10 respondents, the data for the *error* metric are presented in Table 9.

Table 9. Error Aspect Analysis Metrics

Task	Total Errors	Total Attempts	Error Rate
ST1	0	300	0
ST2	0	300	0
ST3	0	300	0
ST4	0	300	0
ST5	3	300	0.01
ST6	0	300	0
ST7	3	300	0.01
ST8	3	300	0.01
ST9	0	300	0
ST10	0	300	0
Total	9	300	0.03
Average (%)	3%		

Based on the results of the *errors* aspect calculations for all tasks in the table above, the average error rate on the District Attorney's Office of Lhokseumawe website is 0.03 or equivalent to 3%. This indicates that 97% of user interactions were free from errors, suggesting that the website has a high level of accuracy and reliability during user interaction.

3.7 Satisfaction Aspect Testing

In the satisfaction aspect testing phase, the System Usability Scale (SUS) method was employed. Ten respondents who had previously used the District Attorney's Office of Lhokseumawe website were asked to complete the SUS questionnaire as an evaluation of their experience during and after using the website.

Each statement in the questionnaire was rated on a five-point Likert scale, where a score of 1 indicated *strongly disagree*, 2 indicated *disagree*, 3 indicated *neutral*, 4 indicated *agree*, and 5 indicated *strongly agree*.

There are specific rules for calculating satisfaction scores using the SUS. Odd-numbered statements (1, 3, 5, 7, and 9) were calculated using the formula $(x - 1)$, while even-numbered statements (2, 4, 6, 8, and 10) were calculated using $(5 - x)$, where x represents the respondent's score for each statement.

To obtain the satisfaction score for each respondent, the total value from all ten statements was first summed, and then the total score was multiplied by 2.5 to produce the final SUS score. The test results for the satisfaction aspect are presented in Table 10.

Table 10. SUS Calculation Results

X	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Total	Score (Total x 2,5)
R1	2	3	4	2	3	2	3	3	3	1	26	65
R2	3	3	3	1	3	2	3	3	3	1	25	62.5
R3	2	3	3	1	3	2	2	2	3	1	22	55
R4	2	3	4	2	3	2	3	3	3	1	26	65
R5	2	3	3	1	3	2	2	2	3	1	22	55
R6	3	2	3	1	4	3	3	2	2	1	24	60
R7	3	3	3	2	3	3	3	3	3	2	28	70
R8	2	3	3	2	3	2	3	3	3	2	26	65
R9	2	3	4	3	3	2	4	3	4	2	30	75
R10	2	4	4	3	3	2	4	3	4	2	31	77.5
Average (%)												65

Based on the results shown in the table above, the average user satisfaction level for the District Attorney's Office of Lhokseumawe website is 65%. This indicates that, in general, users perceive the website as satisfactory but with potential areas for improvement to enhance overall usability and user experience.

3.8 Usability Score

Based on the obtained data (Learnability, Efficiency, Memorability, Errors, and Satisfaction), the usability level of the District Attorney's Office of Lhokseumawe website was calculated using the following equation:

$$\begin{aligned}
 Usability (\%) &= \frac{(Learnability + Efficiency + Memorability + Errors + Satisfaction)}{5} \\
 &= ((86,5 + 93,368 + 95,5 + 97 + 65))/5 \\
 &= 87,5\%
 \end{aligned}$$

From the results of the above calculation, it can be concluded that the overall usability testing score of the District Attorney's Office of Lhokseumawe website is approximately 87.5%.

4. CONCLUSION

The usability evaluation of the District Attorney's Office of Lhokseumawe website, conducted using Nielsen's five main usability metrics—learnability, efficiency, memorability, errors, and satisfaction—revealed several important findings. In terms of learnability, most respondents were able to understand the website's basic navigation and operational flow after several uses. Regarding efficiency, users generally completed the assigned tasks within an acceptable timeframe, although some encountered obstacles that required additional steps or alternative navigation paths. For memorability, users who revisited the website after some time could still recall and perform key functions with relative ease. However, errors were observed in the form of incorrect link selections, difficulties in locating specific features, and misunderstandings of icon and widget functions. The satisfaction assessment, measured using the System Usability Scale (SUS), indicated a relatively low average score among the ten respondents.

Overall, these findings suggest that while the website has fulfilled its basic role as an online public service platform, there remain several usability aspects that require improvement. Enhancements in interface design, navigation structure, and user feedback mechanisms are recommended to improve overall usability and increase user satisfaction.

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