

HALODOC APPLICATION USABILITY: A COMBINED SUS AND SEQ

¹Chara Aulia Urrohim, ²Andreas Rio Adriyanto

Telkom University, Indonesia

[1chraulia@telkomuniversity.ac.id](mailto:chraulia@telkomuniversity.ac.id), [2andreasrio@telkomuniversity.ac.id](mailto:andreasrio@telkomuniversity.ac.id)

Abstract

This research evaluates the usability of the Halodoc application for new users through an Interaction Design-based study. Quantitative methods, specifically the System Usability Scale (SUS) and the Single Ease Question (SEQ), were employed, supplemented by qualitative observation and interviews to diagnose User Interface (UI) and User Experience (UX) problems. Quantitative results revealed significant usability issues, demonstrated by an average SEQ score of 3.2 on a 1-7 scale. The average SUS score was 52.0, which categorizes the platform as "Poor" and in the "Marginal" zone of acceptability, indicating users likely face discomfort and difficulty. These findings were reinforced by qualitative data, which pointed to design constraints such as a cluttered interface, confusing menus/icons, and critical functionality problems with the nearest location feature. The study concludes that user interaction with the Halodoc platform is currently **unsatisfactory** and requires substantial improvements, particularly in interface design, to resolve identified usability violations and achieve a satisfactory user experience.

Keywords: Usability, System Usability Scale (SUS), Single Ease Question (SEQ), Interaction Design, Halodoc.

INTRODUCTION

In today's digital age, advances in information technology, especially platforms or applications focused on health services, have progressed and even become an important part of everyday life. According to Amelia (2024) this development has led to the creation of digital applications and platforms for remote healthcare services, known as telemedicine. Telemedicine is a technology that enables patients to receive healthcare services and consult with doctors virtually, without distance or time constraints, avoiding the need to come to a hospital or clinic.

Several healthcare platforms have gained popularity since the pandemic hit. According to the World Health Organization (WHO), there has been a downward trend in patient visits to doctors, especially since and after the pandemic (Marietha, 2024). This highlights how people's search for healthcare services has begun to change, with more and more people turning to digital health solutions such as telemedicine and health platforms, and reducing access to traditional medical services. The Top Brand Award 2023 has released a list of healthcare apps with doctor consultation features that are favored by the Indonesian public.

**Data Aplikasi Kesehatan Digital Favorit Indonesia
Menurut Top Brand Award 2023**

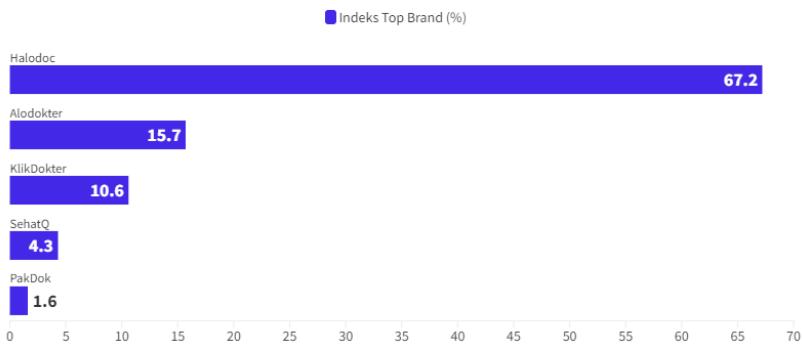


Figure 1. Indonesia's Favorite Digital Health Application Data
Source : Marietha, 2024

Based on the top brand award chart in Figure 1, Halodoc ranks first as the favorite digital health application in Indonesia. According to the Halodoc website (2025), the Halodoc application offers comprehensive digital health solutions. The main services offered include doctor consultations via chat, voice, or video, with various types of doctors, specialists, and medical professionals, either on demand or by appointment. Additionally, Halodoc has a health store where users can purchase medicines, health products, and medical devices, which can be delivered throughout Indonesia, including prescriptions from doctors. Another advantage is the Home Lab & Vaccination service, which allows users to undergo lab tests, vaccinations, or vitamin boosters at home or at a location of their choice, with post-procedure medical advice from partner doctors. Another advantage is that users can now access health services beyond physical health, such as stress management, depression, anxiety, anxiety disorders, dietary supplements, and counseling services available free of charge to users.

Understanding the various offerings of the Halodoc platform, as a digital healthcare provider, is crucial for determining the efficiency and effectiveness of its digital healthcare offerings. This includes how users access, understand, and use healthcare services, particularly on the Halodoc platform. The need for remote access to hospitals and in-person visits presents an opportunity for the Halodoc platform to address users' health concerns and questions. This phenomenon reflects a shift in how patients, or people seeking healthcare services and medical consultations, seek medical advice.

Although Halodoc offers many advantages as a popular digital healthcare application, this study identified several notable usability challenges. Interviews with new users revealed that one of the main issues was difficulty finding the "Register/Sign Up" option. On the initial screen, the application only displays a "Log In" option, which can be confusing for first-time users who do not yet have an account and naturally expect a clear registration option.

In addition, problems were found with the nearby location feature, which was either not functioning properly or not visible, even though this feature is crucial for helping users make appointments with nearby doctors in urgent situations. From an interface perspective, the app's layout was also perceived as overly dense, with too many menus and icons, leading to confusion and difficulty in locating needed services. These findings highlight the need for improvements in navigation clarity, visual design, and functionality to enhance the overall usability of the Halodoc application, especially for new users.

Based on previous research by Cho et al. (2018) evaluating mobile health (mHealth) is necessary to identify usability issues, guide system modifications, and increase end-user technology acceptance. Furthermore, based on previous research by Putra et al. (2020) on the development of a location-based psychological counselor search application, they suggest that mobile applications are a promising solution for connecting individuals in need with counselors based on their location.

This shift in how people search for healthcare services is a suitable research topic for usability testing on the Halodoc platform, particularly how users interact with the design object. With a better understanding of Halodoc interactions, this research is expected to inform improvements in the platform's functionality, design, and content, enabling Halodoc to be more innovative and sustainable in the future, tailored to user needs.

RESEARCH METHOD

This research method uses usability testing to collect data through observation, interviews, the Single Ease Question (SEQ), and the System Usability Scale (SUS), resulting in descriptive and numerical data that can be summarized. The following are the stages of this research:

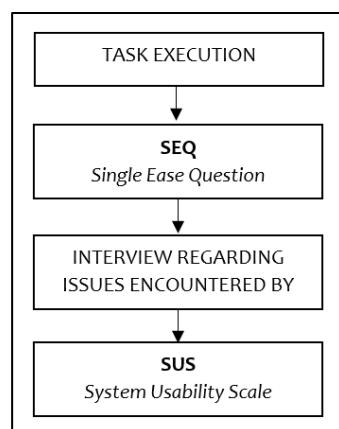


Figure 2. Research Stages
Source : Urrohim, 2024

Figure 2 shows the methodological steps used in this study. Usability testing was conducted on several participants by giving them pre-designed tasks. The testing involved five participants, allowing us to identify almost as many usability issues as testing involving a larger number of respondents (Nielsen, 2012). This scenario evaluation, or testing, involved users who had never used the Halodoc platform. After completing the tasks, all participants were asked to rate how difficult or easy the tasks were using the Single Ease Question (SEQ) questionnaire. Participants were then interviewed with open-ended questions to explore any challenges they encountered and to gather suggestions for system design based on their interactions. At the end of the testing session, participants were asked to rate their satisfaction with the system design using the SUS. The following table lists the tasks assigned to participants.

Table 1. Usability Testing Task List

No.	Task	Details
1	Register as a new user	The user registers for a Halodoc account
2	Make an appointment at the nearest hospital with a specialist doctor	The user schedules an appointment with a specialist doctor at the nearest hospital
3	Medical Check-up	The user registers to undergo a medical check-up

Source: Urrohim, 2024

The SEQ (Single Ease Question) is a Post-Task Questionnaire used to assess the ease of use of a product feature, based on user experience, with a single question (Luhoer, 2019). The SEQ is an effective tool for measuring user ease in completing tasks. More broadly, measuring and understanding user attitudes early and regularly, as done with the SEQ, can provide a strong indication of future user behavior (Sauro, 2018). This questionnaire is generally administered immediately after participants complete a task in usability testing. The SEQ uses a rating scale from 1 (Very Difficult) to 7 (Very Easy) as follows:



Figure 3. SEQ QUESTIONS

Source : Sauro, 2018

The System Usability Scale (SUS) is a standard questionnaire used to measure the usability of a system, product, or interface based on user assessments after completing a testing session (Laubheimer, 2018)

1. I think that I would like to use this system frequently.	1. Strongly Disagree	2.	3.	4.	5. Strongly Agree
	<input type="radio"/>				
2. I found the system unnecessarily complex.	1. Strongly Disagree	2.	3.	4.	5. Strongly Agree
	<input type="radio"/>				
3. I thought the system was easy to use.	1. Strongly Disagree	2.	3.	4.	5. Strongly Agree
	<input type="radio"/>				
4. I think that I would need the support of a technical person to be able to use this system.	1. Strongly Disagree	2.	3.	4.	5. Strongly Agree
	<input type="radio"/>				
5. I found the various functions in this system were well integrated.	1. Strongly Disagree	2.	3.	4.	5. Strongly Agree
	<input type="radio"/>				
6. I thought there was too much inconsistency in this system.	1. Strongly Disagree	2.	3.	4.	5. Strongly Agree
	<input type="radio"/>				
7. I would imagine that most people would learn to use this system very quickly.	1. Strongly Disagree	2.	3.	4.	5. Strongly Agree
	<input type="radio"/>				
8. I found the system very cumbersome to use.	1. Strongly Disagree	2.	3.	4.	5. Strongly Agree
	<input type="radio"/>				
9. I felt very confident using the system.	1. Strongly Disagree	2.	3.	4.	5. Strongly Agree
	<input type="radio"/>				
10. I needed to learn a lot of things before I could get going with this system.	1. Strongly Disagree	2.	3.	4.	5. Strongly Agree
	<input type="radio"/>				

Figure 4. The System Usability Scale

Source : Laubheimer, 2018

Savanti, (2021) research explains how to calculate the SUS score according to several rules that must be applied, as follows:

1. For odd-numbered statements, subtract 1 from the user's chosen number. ($x-1$).
2. For even-numbered statements, subtract 5 from the user's chosen number. ($5-x$).
3. All scores from rules 1 and 2 will range from 0–4 (with 4 being the best).
4. Add all these scores and multiply by 2.5. This multiplication will convert the 0–40 scale to 0–10.

The following is an interpretation of the assessment categories from the SUS scale according to (Sauro, 2018). Once the SUS score has been calculated, it can be interpreted as follows:

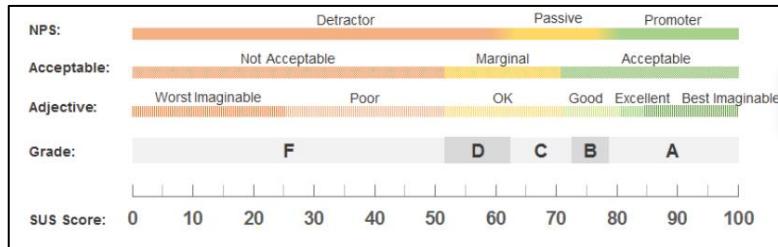


Figure 5. SUS Score Interpretation

Source: Sauro, 2018

RESULT AND DISCUSSION

This study aims to evaluate the usability of an application through usability testing. The methods used included observation, interviews, and Single Ease Question (SEQ) and System Usability Scale (SUS) tests. These tests were conducted to identify usability issues and measure user satisfaction with the Halodoc application.



Figure 6. Implementation of Halodoc Application Testing

Through Observation of New Users via Laptop

Source: Urrohim, 2024

In Figure above, observations were conducted to directly gather data on new users' interactions with the Halodoc app. Researchers observed how participants completed specific tasks within the app. An observer assisted in recording user behavior and expressions throughout the process. The following are the results of app testing using SEQ and SUS, along with interviews with all participants.

Based on interviews conducted on June 3, 2024, with five participants, the researchers obtained findings on the usability of the Halodoc app. All participants reported difficulty using the platform, and the majority (4 out of 5) expressed dissatisfaction with their user experience. This dissatisfaction stemmed from significant issues with the platform's usability and user experience. The primary challenge highlighted by most users (four out of five) was the location function: the nearby

location filter either failed to function or could not correctly detect their location when accessed on a laptop, hindering their ability to quickly find information about nearby healthcare services. Furthermore, the complex interface design was also a major complaint; many users (also four out of five) complained that the main page was too busy, crowded, and cluttered with numerous menu icons, causing confusion and prolonging search time. Issues with navigation and feature clarity also emerged, including difficulty finding certain features such as medical checkups, unclear icon design, confusing heading classification, and menu language perceived as unfriendly. Two users even highlighted the need for a tutorial or short guide on how to use the app, as they felt confused when they first started using it. In short, while the platform was perceived as having strong potential by one satisfied user, given its track record of improvement, the findings indicated the need for urgent improvements in location accessibility and the simplification of the user interface to enhance overall satisfaction.

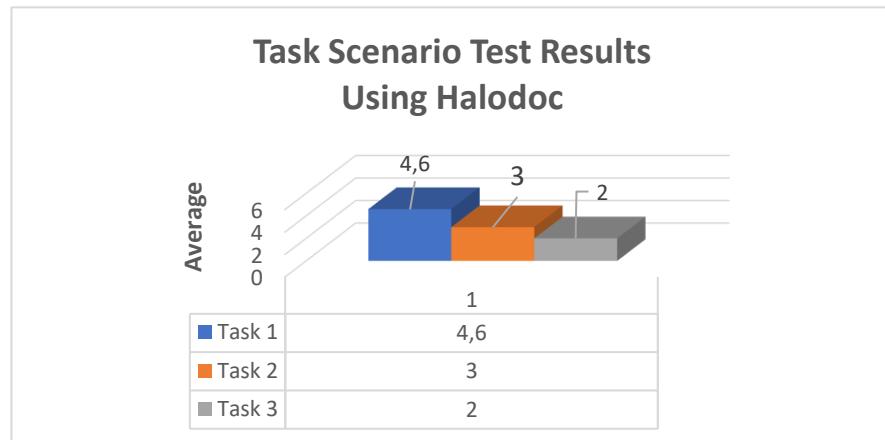


Figure 7. SEQ test graph
Source : Urrohim, 2024

Based on Figure 7, the graph above shows the results of the task scenario testing of the three assigned tasks: registering as a user, making an appointment at the hospital with a specialist, and the final task, registering for a medical check-up. Based on the SEQ testing results, it can be concluded that the third task is considered difficult to complete.

Table 1. System Usability Scale (SUS) Final Score Results

Participant	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Sum (Adjusted Score Total)	Final SUS Score (Sum×2.5)
P1	3	1	2	1	3	1	3	1	3	0	18	45
P2	4	1	3	1	2	2	2	2	2	2	21	52,5

Participant	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Sum (Adjusted Score Total)	Final SUS Score (Sum×2.5)
P3	3	1	3	1	4	2	3	2	3	0	22	55
P4	3	1	3	1	2	1	2	1	4	1	19	47,5
P5	4	2	3	2	3	1	2	2	3	2	24	60
Average											52	

Source: Urrohim, 2024

CONCLUSION

The Single Ease Question (SEQ) testing results show an average score of 3.2 on a 1-7 scale for all tasks. This value indicates that the system has several significant usability issues and requires improvements to achieve a more satisfactory level of user experience.

Furthermore, the System Usability Scale (SUS) testing resulted in an average SUS score of 52.0. This score places the platform in the "Poor" category and within the "Marginal" zone of acceptability. This signifies that users are likely to encounter difficulties and discomfort when interacting with the system, although the issues are less severe than a score below 50.

These quantitative findings are consistent with the qualitative results obtained from the user interviews. It can be concluded that the Halodoc platform necessitates substantial improvements, particularly in its interface design, to enhance user interaction and overall ease of use.

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