ANALYSIS OF USABILITY USING HEURISTIC EVALUATION METHOD AND MEASUREMENT OF SUS ON PRICILIA APPLICATION

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Abstract— *The Presence Digital Application (PRICILIA) is a presence application owned by PT. BGR Logistics Indonesia. However, until now, there has never been an evaluation of usability testing. Complaints from users regarding the PRICILIA application include menu displays that are less interactive, long loading times, and the unavailability of other alternatives besides GPS. Of course, this affects the level of user satisfaction with the application. Therefore, usability testing is needed to be able to measure the level of user comfort, application feasibility, and the application interface. In this study, the system evaluation method used is Heuristic Evaluation with measurement using the System Usability Scale (SUS). The results of this study indicate that aspects that need to be improved with high priority are Error Prevention (H5) and Recognition rather than Recall (H6) because they have a seriousness rating on a scale of 3, while the average score of the final seriousness rating obtained from a total of 10 heuristic aspects is 1, 72 which is then rounded off to a scale of 2. The SUS test results obtained an average final SUS score of 55.13. The results of the calculation of the SUS method are that the Acceptance Ranges have low marginal status, the Grade Scale is on a D scale, and the Adjective Twigs are at the OK level. This shows that the PRICILIA application still needs improvement. Therefore, 30 recommendations for improvement are proposed for future application development.*

Keywords: *heuristic evaluation, presence application, system usability scale (SUS), usability analysis.*

Intisari— *Presence Digital Application* (PRICILIA) merupakan aplikasi presensi yang dimiliki oleh PT. BGR Logistik Indonesia. Namun sampai dengan saat ini belum pernah diadakannya evaluasi *usability testing*. Keluhan dari para pengguna terkait aplikasi PRICILIA meliputi tampilan menu yang kurang interaktif, durasi waktu *loading* yang cukup lama, serta belum tersedianya alternatif lain selain presensi dengan GPS. Tentu hal ini mempengaruhi tingkat kepuasan pengguna terhadap aplikasi. Oleh karena itu *usability testing* diperlukan untuk dapat mengukur tingkat kenyamanan user, kelayakan aplikasi, dan *interface* aplikasi. Dalam penelitian ini metode evaluasi sistem yang digunakan yaitu *Heuristic Evaluation* dengan pengukurannya yaitu menggunakan *System Usability Scale* (SUS). Hasil dari penelitian ini aspek yang perlu diperbaiki dengan prioritas tinggi adalah *Error Prevention* (H5) dan *Recognition Rather Than Recall* (H6) karena memiliki *severity ratings* pada skala 3, sedangkan untuk rata-rata skor *severity ratings* akhir yang didapat dari total keseluruhan 10 aspek heuristik yaitu sebesar 1,72 yang kemudian dibulatkan menjadi skala 2. Hasil dari pengujian SUS didapatkan skor rata-rata akhir SUS sebesar 55,13. Hasil perhitungan metode SUS tersebut yaitu *Acceptability Ranges* berstatus *marginal low*, *Grade Scale* berada di skala D, serta *Adjective Ranting* berada diposisi tingkat OK. Hal ini menunjukan bahwa aplikasi PRICILIA masih membutuhkan perbaikan. Oleh karena itu dalam penelitian ini diusulkan 30 rekomendasi perbaikan untuk pengembangan aplikasi kedepannya.

Kata kunci: *heuristic evaluation, aplikasi presensi, system usability scale (SUS), analisis usability.*

INTRODUCTION

The development of information technology (IT) is very important for companies or agencies facing the current era of globalization. By utilizing IT, companies can increase efficiency and productivity in managing information, including human resource information (Pribadi & Setiyawati, 2021). In a situation where the company has a

P-ISSN: 1978-2136 | E-ISSN: 2527-676X
Techno Nusa Mandiri : Journal of Computing and Information Technology
As an Accredited Journal Rank 4 based on **Surat Keputusan Dirjen Risbang SK Nomor 85/M/KPT/2020**

cooperative relationship with other companies out of town and needs to send its employees to other places, the problem of absenteeism is one of the things that needs attention (Gunawan et al., 2022).

The Presence Digital Application (PRICILIA) is an application owned by PT. BGR Logistik Indonesia that functions as a medium for digital attendance and manages incoming and outgoing data as well as employee work hours. However, due to the absence of available information regarding effectiveness, efficiency, and user satisfaction, This becomes an obstacle in determining future application development steps. (Munawar et al., 2023).

In previous research, specifically in the usability analysis of the SIAM academic information system application at the University of Muhammadiyah Riau (UMRI), several issues were identified. These issues included user experience problems, misconceptions, inconsistencies, non-functional navigation links, and unresponsive displays. Furthermore, it was noted that SIAM had never been assessed using specific methods or standards, which in turn had an impact on user satisfaction levels. Therefore, it was deemed necessary to evaluate the interface design for the student application, using the Heuristic Evaluation method. The research findings revealed that the lowest percentages with "Fairly Good" and "Not Good" qualifications were found in variables H3 (P8), H4 (P9, P10, and P11), H6 (P13 and P14), H7 (P16), H8 (P17), and H10 (P22). Based on the recommendations derived from these results, the focus for improvements was primarily placed on variable H4, which had the highest frequency of problems, while variable H7 (P16) had the lowest percentage at 23%, indicating a "Not Good" rating. This research also generated solutions in the form of recommendations that can be used as a reference for the SIAM development team in making usability improvements to SIAM (Ahsyar et al., 2019).

In the evaluation study of the Ezyschool application, the Heuristic Evaluation and Human-Centered Design methods were employed. The evaluation aimed to assess the extent of user experience (UX) success in meeting user needs and satisfaction. The Ezyschool application is used to manage student activities, including daily or monthly attendance, financial information and payments, student exam grades, and more. The research had two main objectives. First, to identify usability issues using heuristic principles, and second, to design solutions based on feedback from evaluators, severity ratings, and Google Material Design guidelines. The results of this study show a comparison between the initial evaluation findings and the design solutions, which led to a better UX design. This improvement resulted in a reduction of

10 heuristic problems, leaving only 7 issues in the design solution (Arifin et al., 2019).

In a previous study conducted at PT SEVINA, the usability analysis of the mobile application Edlink was performed using the Heuristic Evaluation method. Several issues were identified within this application, including the inability to connect to the server, the inability to click the submit button for quizzes, and the inability to upload assignments. These issues significantly impacted user satisfaction levels. The results of the research yielded 38 recommendations for improvement, primarily focusing on functionality and information related to disaster and major issue categories. These recommendations can be utilized to enhance the usability of the Edlink mobile application in the future (Fatihahsari & Darujati, 2021).

In a subsequent study conducted on the Tim Kita application at the Central Statistics Agency (Badan Pusat Statistik) of Indramayu Regency, the researchers employed the system evaluation methods of Heuristic Evaluation and SUS (System Usability Scale). The Tim Kita application is used for online attendance and work reporting by data processing officers at the Indramayu Regency BPS. The research was conducted to evaluate the usability of the Tim Kita application from the perspectives of effectiveness, efficiency, and user satisfaction based on heuristic principles. The testing results revealed that the effectiveness level was 80%, efficiency was 61.65%, and user satisfaction was 60%, with ratings of "OK" and a grade scale of "D." This indicates that while the Tim Kita application meets user needs, its usage is not yet optimal. This research provides insights into usability issues with the Tim Kita application and offers recommendations for future improvements (Prayitno, 2022).

The PRICILIA application has been developed since 2019. However, until now there has never been a usability testing evaluation to measure the user experience of the application's user interface. Complaints from users regarding the PRICILIA application include a menu display that is less interactive, the duration of the loading time for taking attendance coordinates is quite long, there is no alternative other than presence with GPS in the application, resetting the device, and the user's unique password, which can only be done through the admin system. Of course, this affects the level of user satisfaction with the application. Therefore, usability testing is needed to be able to measure the level of user comfort, application feasibility, and the application interface.

The purpose of this research is to evaluate the application of PRICILIA attendance at PT. BGR Logistik Indonesia to determine the level of user

P-ISSN: 1978-2136 | E-ISSN: 2527-676X
Techno Nusa Mandiri : Journal of Computing and Information Technology
As an Accredited Journal Rank 4 based on **Surat Keputusan Dirjen Risbang SK Nomor 85/M/KPT/2020**

comfort, application feasibility, and the application interface using the heuristic evaluation research method.

Evaluation is an ongoing and regular process that aims to collect, interpret, and provide information about a program. This information is used as a basis for decision making, policy making, or the planning of subsequent programs (Akhsani et al., 2020).

Usability is a science that focuses on analyzing and testing the ease of use of software. The goal is to make the application easy for users to use and increase the effectiveness and efficiency of its use (Ependi et al., 2019).

Heuristic evaluation is a usability engineering technique used to identify usability problems in user interface design. This method involves a number of evaluators to evaluate the user interface and assess the suitability of the design against usability principles (Pertiwi et al., 2019).

With the usability analysis using the heuristic evaluation method, it is hoped that we can find out what the usability problems are in the PRICILIA application both in terms of user interface design and user experience so that recommendations or improvements to the application can be produced based on the evaluation results.

In the previous study, which was conducted by Edlink, the results of the evaluation by three expert evaluators revealed that the current condition of the application has 84 identified issues. The most prevalent usability issues were found in principle H1 - Visibility of System Status, accounting for 23.8% of the total 82 issues, with an average severity rating of 2.5. Meanwhile, the highest average severity rating of 3.22 was observed in principle H3 - User Control and Freedom out of a total of 3 identified issues. The researcher provided 38 recommendations for improvements that can be utilized in the development of Edlink.

In this research, a total of 105 issues were identified in the PRICILIA application. The most frequently encountered issues in the Heuristic Evaluation principles were in the aspect of User Control and Freedom (H3) with a total of 8 identified issues (18%), followed by Match between the System and the Real World (H2) and Flexibility and Efficiency of Use (H7), each with a total of 7 identified issues (16%). However, the aspects that require significant improvement are Error Prevention and Recognition Rather Than Recall, as they received severity ratings of 3, which means they fall into the category of major usability issues that need immediate attention. Therefore, in this research, 30 proposed improvement recommendations have been developed for future application development.

MATERIALS AND METHODS

1. Research Stages

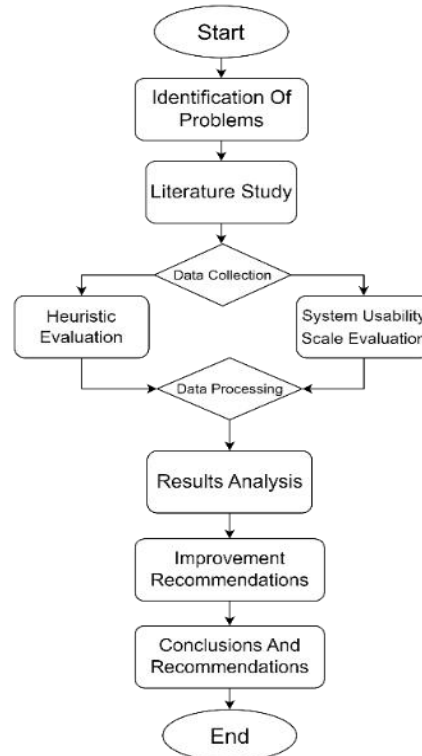The following are the stages of the research conducted in analyzing the PRICILIA application.

Figure 1. Research Flow

Based on Figure 1, it can be understood that the stages of this research include:

1. Problem Identification
   The problem identification stage is carried out to obtain results that are in accordance with the research objectives. After identifying the problem, the problem is described in the form of a problem statement. The formulation of the problem in this study is how to measure the usability of the PRICILIA application using the heuristic evaluation method.

2. Literature Study
   At this stage, a literature study is carried out by reading, studying, and recording important information related to the problem being discussed so that it can support research. The sources used in this literature study include journals, ebooks, and articles related to usability.

3. Data Collection
   Data collection for this research involved observing at PT BGR Logistik Indonesia Jakarta, conducting interviews with users and application developers for reviewing application

P-ISSN: 1978-2136 | E-ISSN: 2527-676X
Techno Nusa Mandiri : Journal of Computing and Information Technology
As an Accredited Journal Rank 4 based on **Surat Keputusan Dirjen Risbang SK Nomor 85/M/KPT/2020**

enhancements, and distributing questionnaires to active PRICILIA application users via WhatsApp groups with Google Forms.

a. *Heuristic evaluation*

In the heuristic evaluation method, the measurement scale used is severity ratings. The following classification of severity ratings (Ependi, 2019) can be seen in Table 1.

Table 1. Classification of severity ratings

Severity ratings	Description
0	Don't Agree : I don't agree that this is a usability problem at all.
1	Cosmetic : Need not be fixed unless extra time is available on project.
2	Minor : Fixing this should be given low priority.
3	Major : Important to fix, so should be given high priority.
4	Catastrophic : Imperative to fix this before product can be released.

The PRICILIA application evaluation process uses the heuristic evaluation method with the aim of identifying existing problems with the application. Heuristic evaluation is a process of examining or inspecting usability carried out by evaluators who are experts in the field of usability (Wibowo, 2020). An evaluator is someone who has knowledge and understanding of heuristics and has experience using various interfaces. The evaluator's job is to observe and evaluate the system being assessed by identifying errors in the system and providing input to researchers, who then change ideas for application developers (Ependi, 2019). In this study, 3 evaluators were selected to assess the PRICILIA application user interface.

The evaluation was carried out using 10 heuristic evaluation principles developed by Nielsen. The following are 10 heuristic evaluation principles (Ependi, 2019), which can be seen in Table 2.

Table 2. Principles of Heuristic Evaluation

Usability Aspect	Description
Visibility of System Status	Shows the status of the system.
Match Between System and The Real World	The use of designs/objects that correspond to the real world.
User Control and Freedom	User freedom and control over the system.
Consistency and Standart	Up to standard and has consistency.
Error Prevention	Provides user error prevention facilities.
Recognition Rather than Recall	Makes it easier for users to recognize the system than to remember the system.
Flexibility and Efficiency of Use	Having a flexible process in every action so that it can serve both experienced and inexperienced users.
Aesthetic and Minimalist Design	It has an aesthetic and simple design.
Help Users Recognize, Diagnose, and Recover from Errors	Assist the user in recognizing and escaping an action error.
Help and Documentation	Help the user complete an action that is not yet understood.

b. *System usability scale* **(SUS)**

Assessment with the System Usability Scale (SUS) is carried out by giving a questionnaire consisting of 10 questions to PRICILIA application users (Diah Indrayani et al., 2022). This is done to determine the level of user satisfaction by using a Likert scale from 1 to 5 as the answer choices. The following Likert scale scores can be seen in Table 3.

Table 3. SUS Likert scale scores

Answers	Scores
Strongly Disagree (STS)	1
Disagree (TS)	2
Doubtful (RG)	3
Agree (S)	4
Strongly Agree (SS)	5

The following is a list of System Usability Scale (SUS) questions that will be given to respondents using the PRICILIA application, which can be seen in Table 4.

Table 4. List of SUS Questionnaire Questions

No	Question	Scale
1	I feel that using the PRICILIA app is easy.	1 to 5
2	I find this system complicated to use.	1 to 5
3	I feel that the features of the PRICILIA application work as they should.	1 to 5
4	I feel that the PRICILIA app has a lot of unnecessary features.	1 to 5
5	I need help from other people or technicians in using this system.	1 to 5
6	I found the PRICILIA app easy to use once I got used to it.	1 to 5
7	I feel that I need to learn many things before I can use the PRICILIA application.	1 to 5
8	I find the navigation within the PRICILIA app confusing.	1 to 5
9	I feel that the PRICILIA application has an attractive appearance.	1 to 5
10	I feel that I can use the PRICILIA application smoothly.	1 to 5

c.   Population and Sample

A population is a generalized area consisting of objects or subjects who have certain qualities and characteristics determined by the researcher to be studied and then drawn conclusions from (Firmansyah & Dede, 2022). The population in this study includes all users of the PRICILIA application at PT. BGR Logistics Indonesia in Jakarta, which has 212 users.

While the sample is part of the number and characteristics possessed by a population, in taking the sample, one must use a certain method based on certain considerations (I Ketut Swarjana, 2022). Determination of the number of samples in this study is determined by the roscoe method. The Roscoe method involves determining the number of samples by 10 times the number of variables studied (Agia & Nurjannah, 2022). Based on this, the number of samples in this study, namely as many as 100 respondents, was determined based on 10 multiplied by 10 variables in the study. The following characteristics of the respondents in this study can be seen in Table 5.

Table 5. Respondent Criteria

No.	Criteria	
1.	Gender	1) Male
		2) Female
2.	Age	1) 18-25 Years Old
		2) 26-40 Years Old
		3) >40 Years Old

4.   Data Processing

At this data processing stage, the calculation of the results of the questionnaire that have been obtained is carried out according to the formula from Heuristics and SUS.

a)   Calculation of heuristic evaluation values

The heuristic evaluation value is obtained by calculating the formula (Wibowo, 2020):

$$\sum Hx = 0 * x + 1 * x + 2 * x + 3 * x + 4 * x \dots\dots\dots(1)$$

Description:
$\sum Hx$ = The sum of the rating scores of the heuristic sub-aspects in each heuristic aspect (H1, H2.....H10).
x = Usability points, worth 1/0.

Then, to generate the severity rating value of each heuristic aspect, use the formula:

$$Sv = \sum \frac{Hx}{n} \dots\dots\dots\dots\dots(2)$$

Description:
Sv = Severity rating results in one heuristic aspect
n = the number of heuristic sub-aspects in each heuristic aspect.

b)   Calculation of SUS value

There are rules for determining the final value of the System Usability Scale (SUS) questionnaire results, which are as follows (Diah Indrayani et al., 2022):

1)   Odd statements, namely: 1, 3, 5, 7, and 9 scores given by respondents minus the 1.

$$\text{Odd SUS score} = \sum Px - 1 \dots\dots\dots\dots(3)$$

Where Px is the odd number of questions.

2)   Even statements, namely 2, 4, 6, 8, and 10 scores given by respondents are used to reduce 5.

$$\text{even SUS score} = \sum 5 - Pn \dots\dots\dots\dots(4)$$

Where Pn is the number of even questions.

3)   The results of the conversion are then added up for each respondent and multiplied by 2.5 to get a value range between 0 – 100.

$$(\sum \text{skor ganjil} - \sum \text{skor genap}) \text{x } 2,5 \dots\dots\dots\dots(5)$$

4)   After the score of each respondent is known, the next step is to find the average score by adding up all the scores and dividing it by the number of respondents. This calculation can be seen in the following formula:

$$\bar{x} = \frac{\Sigma x}{n} \dots\dots\dots\dots\dots(6)$$

Where $\bar{x}$ is the average score, Σx is the total score of the System Usability Scale and n is the number of respondents.

From these results, an average value will be obtained from all the assessments of the respondent's score. The following determines the grade based on the assessment results obtained (Diah Indrayani et al., 2022), which can be seen in Table 6.

Table 6. Grade SUS scores

Grade	SUS Score
A	score >= 80.3
B	score >= 74 and < 80.3
C	score >= 68 and < 74
D	score >= 51 and < 68
F	score more < 51

5.   Analysis of Results

After the data processing stages are carried out, the next stage is data analysis. This stage begins by combining the problems identified by the three expert evaluators by filling out a questionnaire. Then a process of consolidation, or filling in the severity rating, is carried out by interviewing each evaluator according to the combined results of the problems of the three evaluators. The researcher then calculates the average severity rating to determine the priority of repairs.

In analyzing the results of the previous SUS method, validation and reliability tests were first carried out to ensure that the respondents' results

P-ISSN: 1978-2136 | E-ISSN: 2527-676X
Techno Nusa Mandiri : Journal of Computing and Information Technology
As an Accredited Journal Rank 4 based on **Surat Keputusan Dirjen Risbang SK Nomor 85/M/KPT/2020**

were valid and confirmed that they could be used for calculations using the SUS method formula (Janna & Herianto, 2021). Testing the validity and reliability is done with data analysis tools using SPSS software version 25.

6. Conclusions and Suggestions

After completing all stages, the last stage is to draw conclusions from the results that have been obtained and provide suggestions based on the findings of the research that has been conducted to make improvements to the system. Recommendations for improvements proposed after conducting an evaluation with a heuristic evaluation and SUS calculation aim to improve the usability aspect and reduce the possibility of problems occurring in the application.

RESULTS AND DISCUSSION

A. Heuristic Evaluation Results

Heuristic Evaluation testing was carried out by involving 3 evaluators. The following criteria for the selected evaluators can be seen in Table 7.

Table 7. Evaluator Criteria

No.	Kriteria Evaluator
1	Minimum bachelor's degree
2	Understand the concept of interface design as a usability expert or Human Computer Interaction.
3	Was a mobile application developer

Following are the results of testing with the heuristic evaluation method, which can be seen in Table 8.

Table 8. Heuristic Evaluation Test Results

Usability Aspect	Average Severity Rating	Value Rounding Scale 0-4
H1	1,7	2
H2	2,4	2
H3	2,3	2
H4	0	0
H5	2,6	3
H6	2,5	3
H7	2,3	2
H8	1	1
H9	1,3	1
H10	1,1	1
Severity rating average value	1,72	2

Based on the evaluation results with the heuristic evaluation, the average final severity rating score obtained is a scale of 2. This shows that the PRICILIA application requires improvement. The following details the usability problem from the

evaluation results based on the 10 heuristic evaluation principles, which can be seen in Table 9.

Table 9. Heuristic Evaluation Results

Code	Usability Aspect	Evaluation result	Category & Description
H1	Visibility of system status	Scale 2	Minor usability problem (given low priority for improvement)
H2	Match between system and the real world	Scale 2	Minor usability problem (given low priority for improvement)
H3	User Control and Freedom	Scale 2	Minor usability problem (given low priority for improvement)
H4	Consistency and standards	Scale 0	No usability issues
H5	Error Prevention	Scale 3	Major usability problem (given high priority for improvement)
H6	Recognition rather than recall	Scale 3	Major usability problem (given high priority for improvement)
H7	Flexibility and efficiency of use	Scale 2	Minor usability problem (given low priority for improvement)
H8	Aesthetic and minimalist design	Scale 1	Cosmetic usability problem (no need to fix unless extra time is available).
H9	Help users recognize, diagnose, andrecover from errors	Scale 1	Cosmetic usability problem (no need to fix unless extra time is available).
H10	Help and documentation	Scale 1	Cosmetic usability problem (no need to fix unless extra time is available).

Based on the analysis conducted, it was found that the aspects that need to be improved significantly are Error Prevention and Recognition Rather Than Recall, compared to other usability aspects. The scores obtained for the Error

P-ISSN: 1978-2136 | E-ISSN: 2527-676X
Techno Nusa Mandiri : Journal of Computing and Information Technology
As an Accredited Journal Rank 4 based on **Surat Keputusan Dirjen Risbang SK Nomor 85/M/KPT/2020**

Prevention and Recognition Rather Than Recall aspects are 3 each, which fall into the category of major usability problems.

Apart from the Error Prevention and Recognition Rather Than Recall aspects, there are also other usability aspects that need attention, namely Visibility Of System Status, Match Between System And The Real World, User Control And Freedom, and Flexibility and Efficiency Of Use. However, the level of improvement for this aspect is lower because it gets a score of 2, which is included in the category of minor usability problems.

Aspects of usability with codes H8, H9, and H10 get a score of 1, which is included in the category of cosmetic problems. Improvements to these aspects can be made if there is additional time to refine the interface, but they are not a top priority.

Meanwhile, the Consistency and Standards (H4) aspect gets a score of 0, this indicates that the designed interface is in accordance with the Heuristic Evaluation principles and there are no significant problems based on the evaluation using this method.

B. Results of the System Usability Scale (SUS)

Before calculating the SUS formula, the results of the SUS respondents' responses will be tested for validity and reliability first with SPSS software version 25. Following are the results of testing the validity test with SPSS, as seen in Table 10.

Table 10. Validity Test Results

Question	Correlation Value (RCount)	RTable	Description
X1	0,325	0,1966	Valid
X2	0,524	0,1966	Valid
X3	0,468	0,1966	Valid
X4	0,563	0,1966	Valid
X5	0,532	0,1966	Valid
X6	0,354	0,1966	Valid
X7	0,405	0,1966	Valid
X8	0,574	0,1966	Valid
X9	0,588	0,1966	Valid
X10	0,626	0,1966	Valid

The validity test of the questionnaire can be considered valid if the value of Rcount > Rtable, and the purpose of the validity test is to ensure the accuracy and precision of the measurements used in the measuring instrument (Janna & Herianto, 2021). The significance level used is **0.05** with a value of r in the table of 100 respondents, namely **0.1966.**

Based on the results of validity testing with SPSS software, the published questionnaire results are **valid**. This can be proven, namely from the test results, which show **rcount> rtable**.

Furthermore, reliability testing was carried out with SPSS software to determine the level of consistency of measurement results. The following are the results of the reliability test with SPSS, which can be seen in Table 11.

Table 11. Reliability Test Results

Cronbach's Alpha	N of items	Description
0,657	10	Reliable

The Cronbach alpha (CA) reliability test is declared valid for **reliability** if the Cronbach alpha value is **> 0.60**.

Based on the results of the reliability test above, the variable user satisfaction with the application is declared reliable because the number of Cronbach alpha is > 0.60. The Cronbach alpha variable value obtained is 0.657. So it can be seen that the research variable is reliable.

The calculation of the System Usability Scale (SUS) is carried out according to the formula above. The following results of the SUS calculation can be seen in Table 12.

Table 12. SUS Calculation Results

R	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	The calculation results	SUS score
R1	5	5	5	3	2	2	5	5	3	2	23	57,5
R2	4	4	3	4	4	4	5	5	4	3	20	50
R3	2	3	4	3	3	3	4	4	3	4	19	47,5
R4	5	2	3	1	4	2	4	1	4	1	33	82,5
R5	4	1	3	2	4	4	3	3	2	3	23	57,5
R6	3	1	4	3	5	2	5	4	4	2	29	72,5
R7	2	3	2	1	2	3	4	4	3	4	18	45
R8	4	3	1	3	1	3	3	3	3	3	17	42,5
R9	1	2	3	2	3	2	4	2	2	2	23	57,5
R10	4	1	4	2	3	2	4	4	4	3	27	67,5
R11	3	2	5	2	3	4	2	4	3	4	20	50
R12	5	1	4	2	5	3	4	2	3	1	32	80
R13	2	4	1	4	1	4	4	2	4	2	16	40
R14	5	5	2	5	4	2	2	5	5	5	16	40
R15	1	1	3	4	2	4	5	2	4	2	22	55
R16	5	5	4	5	4	5	4	4	5	4	19	47,5
R17	2	3	4	3	4	2	4	1	3	1	27	67,5
R18	4	2	4	1	3	2	2	4	1	2	23	57,5
R19	2	5	5	5	5	5	5	5	5	5	17	42,5
R20	5	2	4	5	4	2	4	2	5	2	29	72,5
Average score												55,13

In the table 12, the application evaluation calculation using the SUS method obtained an

P-ISSN: 1978-2136 | E-ISSN: 2527-676X
Techno Nusa Mandiri : Journal of Computing and Information Technology
As an Accredited Journal Rank 4 based on **Surat Keputusan Dirjen Risbang SK Nomor 85/M/KPT/2020**

average final score of 55.13. Next, an assessment will be made of the score that has been obtained. The SUS method has 3 measurement aspects, namely Acceptability Ranges, Grade Scale, and Adjective Twigs. The following measurement results can be seen in Figure 2.
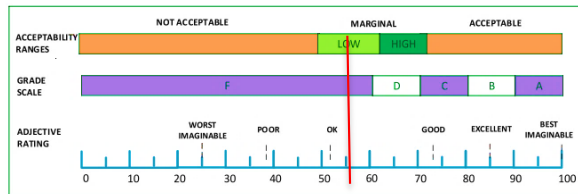

Figure 2. SUS Measurement Results

Based on these 3 aspects, the final average score of SUS in the Acceptability Ranges is at the marginal low for the Grade Scale which is on scale D and finally, the Adjective Rank position is at the OK level. So the results that have been obtained based on this score are that the system is already well used but still requires further improvement in terms of usability.

C. Application Improvement Recommendations

Based on the problem findings obtained after the evaluation, recommendations for problems (H5) and (H6) that have high priority levels of improvement are as follows:
1. Text commands are improved again using a simpler language that is easily understood by ordinary users.
2. There need to be navigation instructions on each page to help users.
3. It is necessary to have an attendance report menu to help users find information about their attendance data recap.
4. Buttons or other action options should have their layout changed so they can be seen and easily found by application users.

CONCLUSION

The results of this research indicate that the aspects requiring high-priority improvement are Error Prevention (H5) and Recognition Rather Than Recall (H6) because they have severity ratings of 3 on the scale. As for the average final severity ratings score obtained from the total of 10 heuristic aspects, it is **1,72** which is then rounded to a scale of **2**.

The results from the SUS testing yielded an average final SUS score of **55,13**. The calculations from the SUS method show that the Acceptability Ranges fall into the **marginal low** status, the Grade Scale is at **level D**, and the Adjective Rating is positioned at the **OK level**.

From the results of research that has been done on PRICILIA Application Usability Analysis at PT. BGR Logistik Indonesia, a conclusion can be drawn, namely that the PRICILIA application is currently not fully easy for users to use to make attendance and obtain information related to presence data. Therefore, 30 recommendations for improvement were made in this study for future application development.

Based on the conclusions from the research results above, several suggestions can be given. Among them, it is hoped that companies can develop the PRICILIA application by considering the recommendations for improvement from this study to increase the usability value of the PRICILIA application.

In the system, it is necessary to redevelop the PRICILIA application interface as well as system functions and existing features to be more effective, efficient, and informative to help users get information related to presence data more easily, as well as improve the development of the application so that it can be used on iOS devices.

And for further research, it is hoped that it will be able to continue with recommendations for improvements in the form of prototypes by paying attention to design atoms in accordance with heuristic principles, as well as re-testing using other methods such as the Think-Aloud Evaluation (TA) method and Cognitive Walkthrough (CW).

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