JURNAL RISET INFORMATIKA **P-ISSN: 2656-1743 |E-ISSN: 2656-1735**
Vol. 7, No. 2. Maret 2025 DOI: https://doi.org/10.34288/jri.v7i2.338
Accredited rank 4 (SINTA 4), excerpts from the decision of the DITJEN DIKTIRISTEK No. 230/E/KPT/2023

UI/UX DESIGN DEVELOPMENT ON PT GALVA TECHNOLOGIES Tbk WEBSITE SERVICE TRACKING WITH THINKING DESIGN METHOD

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Abstract

This research uses a qualitative approach with a focus on the development of the UI/UX design of the Galva Service Tracking website using the Design Thinking method. The main goal of this research is to improve the user experience by creating a more intuitive and efficient design. Here are the details of the methods used in this study. In addition, another purpose of this study is to develop a UI/UX design on the Service Tracking website of PT Galva Technologies Tbk using the Design Thinking method. With the application of information technology that is increasingly crucial, UI/UX design improvements are expected to increase user satisfaction and the effectiveness of the services provided. Through the Design Thinking approach, this research involves users in every stage of development starting from empathy, problem definition, ideation, prototype making, to testing. The System Usability Scale (SUS) method is used to evaluate the usability of a website. The results of the study show that the application of Design Thinking has succeeded in improving the quality of website design and function, as well as providing a better and more satisfying user experience. Thus, it is hoped that the Service Tracking website of PT Galva Technologies Tbk can meet the needs and expectations of users more optimally.

Keywords: UI/UX -1; Service Tracking -2; Design Thinking -3; System Usability Scale (SUS) -4; Usability -5

Abstrak

Penelitian ini menggunakan pendekatan kualitatif dengan fokus pada pengembangan desain UI/UX website Galva Service Tracking menggunakan metode Design Thinking. Tujuan utama dari penelitian ini adalah untuk meningkatkan pengalaman pengguna dengan membuat desain yang lebih intuitif dan efisien. Berikut adalah rincian metode yang digunakan dalam penelitian ini. Selain itu tujuan lain dari penelitian ini adalah untuk mengembangkan desain UI/UX pada website Service Tracking PT Galva Technologies Tbk menggunakan metode Design Thinking. Dengan penerapan teknologi informasi yang semakin krusial, perbaikan desain UI/UX diharapkan dapat meningkatkan kepuasan pengguna dan efektivitas layanan yang disediakan. Melalui pendekatan Design Thinking, penelitian ini melibatkan pengguna dalam setiap tahap pengembangan mulai dari empati, definisi masalah, ideasi, pembuatanprototype, hingga pengujian. Metode System Usability Scale (SUS) digunakan untuk mengevaluasi usability website. Hasil penelitian menunjukkan bahwa penerapan Design Thinking berhasil meningkatkan kualitas desain dan fungsi website, serta memberikan pengalaman pengguna yang lebih baik dan memuaskan. Dengan demikian, diharapkan website Service Tracking PT Galva Technologies Tbk dapat memenuhi kebutuhan dan ekspektasi pengguna secara lebih optimal.

Kata kunci: UI/UX -1; Service Tracking -2; Design Thinking -3; System Usability Scale (SUS) -4; Usability -5

INTRODUCTION

Technological advances in the current digital era cannot be separated from people's lives. Many daily activities have taken advantage of the use of technology, such as in terms of learning, communicating, and shopping that can be done online (Alfirahmi, Kania, and Yusup 2023). In today's digital era, the presence and functionality of applications and websites have become an integral component of daily life, both for individual and business purposes (Ichsan, Yanti, and Sa'adah 2022). In its development, the website developed from initially a static website that only displayed information simply to a dynamic website that supported interaction between users and websites with programming languages, databases, styling, and others (Deshan Djuardi et al. 2024). The popularity of the website has soared along with its excellence in disseminating information without space and time limitations (Ratama, Munawaroh, and Mulyati 2022).

Website Service Tracking - Galva Group (service.galva.co.id) is a website owned by PT Galva Technologies Tbk. This website was created to make it easier for customers to monitor the repair status of their unit at PT Galva Technologies Tbk. Website Service Tracking - Galva Group (service.galva.co.id) is a website owned by PT Galva Technologies Tbk. This website was created to make it easier for customers to monitor the repair status of their unit at PT Galva Technologies Tbk. Based on initial observations, there are several areas for development on the Service Tracking - Galva Group website, such as improving the design, simplifying navigation, and completing information. The lack of a system that can help with work activities results in a delay in the productivity of a company or organization (Kurnianto et al. 2021).

The purpose and purpose of implementing UI/UX concepts and techniques into the design of the application interface (layout) aims to create alignment of system needs with business flows so as to produce an attractive user interface and user experience, with the final result of the interface design being easy to understand in its use (Santoso 2022). All things you need in designing a display to look more attractive such as the use of letters, Layout, workflow of a system, the use of n colors, to menu functions can created in this prototype (Okty Dea Pratama and Suwarni 2022).

This research emphasizes the importance of elements such as intuitive navigation, attractive visual displays, and interactions that are easy for users to understand (Hamdanuddinsyah, Hanafi, and Sukmasetya 2023). In the context of the Service Tracking - Galva Group website, these elements become very relevant considering the repair services offered. Therefore, an analysis of the UI/UX design of this website needs to be done to ensure that all features can be accessed easily and provide a positive experience for users.

RESEARCH METHODS

To understand various new phenomena, it is indeed necessary to have new science that is born through research using the right methodology (Muhammad Rijal Fadli 2008). This research uses a qualitative approach with a focus on the development of the UI/UX design of the Galva Service Tracking website using the Design Thinking method. Design Thinking is a collaborative method that gathers many ideas from disciplines to obtain a solution. The design thinking approach method is an appropriate method for this research because it can see the subjective and objective point of view in determining decisions (Widodo and Wahyuni 2016). Design thinking does not only focus on what is seen and felt, but also focuses on the user experience. Design thinking is used to find the most effective and efficient solution to solve a complex problem (Sari et al. 2020). Design Thinking is a very useful modeling for UI/UX development by Greghard Shawenner. Design Thinking can provide a solution-based approach to determine what a user really needs and is also very useful in overcoming unclear or unknown problems through the innovation process by prioritizing empathy to determine effective solutions (Aryani et al. 2021). The main goal of this research is to improve the user experience by creating a more intuitive and efficient design.

Time and Place of Research

This research was conducted at the head office of PT Galva Technologies Tbk. Galva Building, Jl. Hayam Wuruk No.26 Jakarta, Tel.021-3456650, 3501173-74.

Research Target / Subject

The main goal of this research is to improve the user experience by creating a more intuitive and efficient design.

Data, Instruments, and Data Collection Techniques

Qualitative descriptive is a method that is carried out to collect data or information that is

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can produce a decision for the intended purpose (Chandra et al. 2022). The data collection techniques used include:

Observation: Conducted at the location of PT Galva Technologies Tbk to understand the user's interaction with the current website.

Interviews: Conducted with end-users and company staff to identify needs and problems faced in using the website.

Data analysis technique

The data collected was analyzed through Several stages:

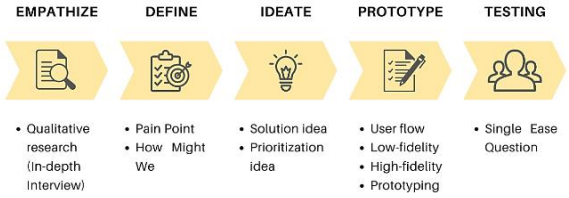

Figure 1 Stages of Design Thinking
Source: (Alfirahmi et al. 2023)

1. Empathy: Identifying needs and User issues based on observation and interview data (Chandra et al. 2022).
2. Definition: Formulating the main problems and user needs from the data that has been collected.
3. Ideation: Developing various ideas for innovative solutions that can meet the needs of users.
4. Prototype: Create a preliminary model of the proposed design to be tested and evaluated.
5. Testing: Testing prototypes with real users to get feedback and make improvements.

Through this approach, it is hoped that a more effective and efficient website design can be obtained in meeting the needs of users, as well as improving their experience in using Galva Service Tracking service (Rachman and Sutopo 2023).

RESULTS AND DISCUSSION

In this study, the design of the website for the Galva Service Tracking service developed using the Design Thinking approach. This approach was chosen as a solution to overcome the identified problems on today's websites, such as a lack of clarity Navigation and user difficulties in tracking their service status. The following are the stages carried out in this study:

Empathize

At the empathy stage, data is collected to understand the needs and problems experienced by users when interacting with the website tracking services. This stage is divided into three main parts:

a. Observation

Observations were made at the location of PT Galva Technologies Tbk to observe how users interact with the website today. These observations help in identifying Navigation problems and difficulties in access information that may not be aware of users themselves. Through observation, researchers can see firsthand how users search what information and features are most frequent used or ignored. Here's what Website Service looks like Tracking – Galva Group.

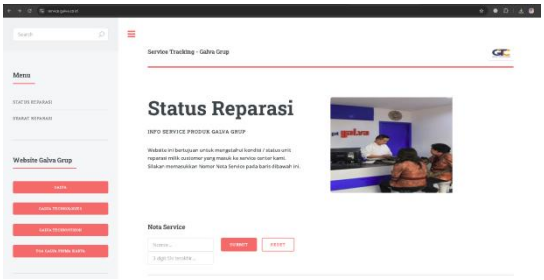

Figure 2 Website Service Display Tracking – Galva Group

In this observation, the researcher found that the display and also some of the functions inside this website can be developed again which becomes the researcher's focus is on the navigation and interactions on this website.

b. Interview

Interviews were conducted with 4 technicians and also 1 admin who is familiar with the system tracking service. Interviews are conducted for know what problems are faced in Running a website tracking service, process The interview was conducted by inviting Talk to technicians and also admins and Hear what they feel about website service.

In the results of the interview between the researcher and several respondents who are employees of PT Galva Technologies Tbk shows that they rarely inform customers about this website, the reasons are lack of understanding of this website, and according to employees, they are also more comfortable to explain directly to

customers, and other problems are also its not-so-attractive appearance is a factor this website is rarely educated to customer.

c. Questionnaire

Data collection to obtain data on the results of this research questionnaire test done by creating a list of questions which will be used to conduct the test questionnaire. List of questions or questionnaires made by the researcher by looking at the journal that discusses questions for the System Usability Scale (SUS) with a total of 10 questions and also 5 respondents who is also an employee of PT Galva Technologies Tbk that the author has invited Talking in Previous Interview Sessions.

Define

After the data from the empathy stage was collected, the researcher proceeded to the define stage. In this phase, the information obtained is analyzed to identify the main problems and user needs that need to be addressed in website design. Issues such as unintuitive navigation and lack of features that support user interaction are the main focus. The results of this analysis are used to formulate design concepts that can improve the user experience.

Ideate

In the ideation stage, various ideas are developed to create innovative solutions that can meet the needs of users. The researcher and creative team came up with a design concept that included refining the layout, adding important features, and improving the visual appearance of the website. These ideas are then compiled into an initial prototype that will be tested at the next stage. Here are some ideas that the author can get after looking at several references from similar Service websites:

1. Lenovo Website Service

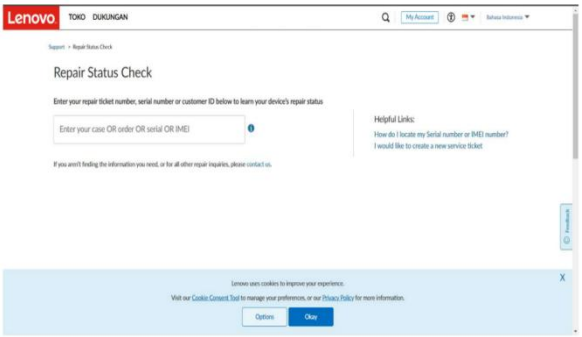

Figure 3 Lenovo Service Website Display

2. Akari Website Service

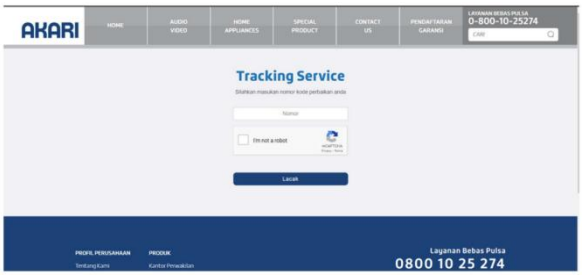

Figure 4 View of Akari's Website Service

From several references that the author has made and the author has found how to design a suitable design to develop the UI/UX appearance on the PT Galva Technologies Tbk Website Service Tracking and the author can make a prototype design.

Prototype

At the Prototype Website Service Tracking stage of PT Galva Technologies Tbk, the researcher made a design that had been developed according to the needs of users, so that the prototype display was more attractive and interactive.

Here is a prototype display that has been designed or developed:

1. Home Page

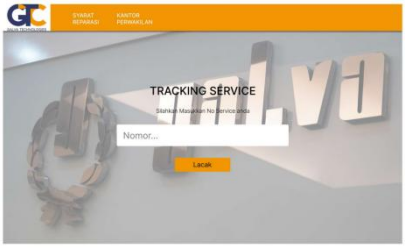

Figure 5 Main Page Display

2. Repair Requirements Page

Figure 6 View of the Repair Requirements Page

3. Representative Office Page

Figure 7 Representative Office Page Display

For the author's representative office to create so that every existing address and Whatapps No can interact and make it easier for users to contacting or visiting the location of each representative office.

Testing Usability

At this stage, a trial will be carried out on a pre-made Protoype by using the System Usability Scale (SUS). SUS is a user test method that provides a reliable "quick and dirty" measuring instrument (Mardi Suryanto, Faroqi, and Simarmata 2022). By providing questionnaires and Prototype links to 4 Technicians and 1 admin. The following are the responses from 5 users who conducted the Prototype test as seen in Table 1.

Table 1. Questionnaire Results

Respon-dents	Technici-an	Technici-an	Technici-an	Admi n	Technici-an
Q1	2	3	3	3	4
Q2	3	4	3	4	3
Q3	3	4	3	4	3
Q4	2	4	2	4	2
Q5	3	2	3	4	3
Q6	2	4	3	4	3
Q7	3	4	3	4	3
Q8	3	4	3	4	3
Q9	1	4	3	4	3
Q10	3	4	3	4	2
SUS Score	25	37	29	39	29
SUS Score Final Result			62,5		
Avera-ge			79,5		

SUS value of 79.5 is generated from the data and the results of these calculations. SUS rating is more than 70 is considered acceptable in the SUS assessment grade. This shows that PT Galva Technologies Tbk's website service tracking has met the eligibility criteria because it has met the accepted categories. The results of the test show that the prototype of PT Galva Technologies Tbk's website tracking service based on SUS calculations has met the needs of users. Web design can serve as an idea or reference to add features that users need that were not there before.

CONCLUSIONS AND SUGGESTIONS

Conclusion

This study successfully shows that the application of the Design Thinking method in UI/UX design development on the Service website Tracking PT Galva Technologies Tbk can improve the quality and functionality of the website. The Design Thinking process involves the empathy, problem definition, ideation, creation prototypes, and testing has made it possible to understand needs and preferences users in depth. Evaluation using the System Usability Scale (SUS) showed a significant improvement in usability aspects, reflecting better user satisfaction and experience. Thus, this study proves that a user-centric approach can provide optimal results in UI/UX design development.

Suggestion

Continuous Maintenance and Development: PT Galva Technologies Tbk is advised to continue to carry out continuous maintenance and development on their Service Tracking website. This includes updating features and designs according to user feedback as well as the latest technological developments; Increased User Engagement: Actively engaging users in each subsequent phase of development will ensure that the website remains relevant and meets user needs. This can be done through user satisfaction surveys, A/B testing, and user trial sessions; Training and Socialization: Provide training to internal staff responsible for website maintenance on UI/UX principles and Design Thinking methods so that they can implement updates and improvements more effectively.

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