THINKING UI/UX DESIGN ONLINE DESCOVERY EVENT TICKETS

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ABSTRACT

This research discusses designing the UI/UX appearance of an online ticket-purchasing application called Discovery Event to solve problems such as the absence of a group chat feature, late withdrawals of funds, and location points in the application. In implementing UI/UX Design Thinking in online ticket purchasing applications, several stages must be carried out: Empathize, Define, Ideate, Prototype, and Test. The Design Thinking method is used to create solutions to solve problems felt by users. The research results show that Discovery Event can solve problems by improving the group chat feature, efficient fund withdrawals, and adding location point features. Tests involved 20 respondents, which showed user satisfaction with the application interface design. Discovery Event offers an attractive and user-friendly interface and provides a foundation for better application development in the future.

Keywords: Online ticket purchasing, Discovery Event, Design Thinking, UI, UX.

INTRODUCTION

The event ticket purchasing application makes it easier for users to purchase tickets online(MS et al., 2021). However, users still need help with this application, such as the absence of a group chat feature, late withdrawals, and no location points. Therefore, researchers will design a UI/UX display for an online ticket-purchasing application called DiscoveryEvent. DiscoveryEvent was created to solve these problems(Nurmaharani & Heriyanto, 2023). In developing an event ticket purchasing application display, it is essential to understand user needs and find innovative solutions to problems faced by users. Some of the problems that users often need help with are the application's lack of a group chat feature, late withdrawals, and the absence of a location point. Therefore, designing a good UI/UX is necessary to improve the application's user experience and user interface (Hananto & Rahman, 2018),(Ridwan Sulistyono et al., 2023).

In implementing Design Thinking UI/UX in online ticket purchasing applications, several stages must be carried out: Empathize, Define, Ideate, Prototype, and Test(Setiyani and Tjandra, nd) (Hartina et al., 2022). The Empathize stage is carried out by conducting

observations, interviews, and direct interaction with users to understand the needs and problems faced by users(B. Huda et al., 2023). The Define stage is carried out by formulating the problem clearly and precisely (Ghazali et al., 2018). The ideation stage involves generating many ideas by brainstorming and developing these ideas. The prototype stage is carried out by creating a prototype based on the ideas that have been generated(Dumalang et al., 2023). The Test stage tests the prototype created by collecting user feedback and evaluating the resulting solution(Ardiansyah & Rosyani, 2023).

By taking a Design Thinking UI/UX approach to the online ticket purchasing application, it is hoped that it can improve the user experience and user interface of the application. Several features that can be improved through UI/UX design in event ticket purchasing applications are a group chat feature to make it easier for users to communicate with other participants and event organizers, faster and more efficient withdrawal of funds, as well as adding a location point feature to the application to make it easier for users to find locations. Program.

Method

The method used to design this user interface is Design Thinking. This approach focuses on iterating on understanding the problem so that the resulting prototype meets needs and provides a meaningful solution for users. This approach places the user at the center of attention, so the user's role becomes very important in creating attractive UI/UX designs that suit their needs.(Puteri et al. 2022).

In the past, the Design Thinking method consisted of three phases: the inspiration phase, which involved identifying a need or problem as motivation to find a solution or innovation; the ideation phase, which involved generating ideas, developing and testing ideas, and implementing them. That. Phase focuses on refining the solution and deploying it to users. However, these three steps evolved over time into five steps, with several sections added to provide more detailed procedures(Nadhif et al., nd).



Figure 1. Stages of Design Thinking(Shidqi et al., 2021).

Below is an explanation of the stages of the design thinking method:

Empathize

It emphasizes a process in which we try to understand other people's emotions by feeling similar feelings about the problems, situations, and conditions they are experiencing(Putra et al., 2021).

Define

The second stage, Define, identifies user problems by utilizing the research and observations carried out in the Empathize stage(Shirvanadi, 2021).

Ideate

The ideation process is the stage of collecting ideas that then become solutions to the problems that have been found. This process is carried out to determine the priority of each feature, which will later be finalized and implemented in prototype form(Adhitya et al. 2022).

Prototype

Two types of prototypes are used: low-fidelity wireframes and high-fidelity prototypes(Sufandi et al., 2021). In this prototyping, the results of the ideation in the form of features and customer journeys are implemented into a display design or user interface. When creating a good user experience, you must consider the components in creating the user interface at the hi-fi stage. These components are layout, color design, and interface control(Saputra et al., 2022).

Test

This is the final stage of design thinking. This process is carried out to get appropriate responses or feedback from respondents regarding creating the prototype. This aims to discover whether the solutions that have been developed can overcome the problems faced by respondents(Syabana & Saputra, 2020).

RESULTS AND DISCUSSION

Through the UI/UX design process in the Discovery Event application, it is hoped that it can solve the problems users face. The prototype resulting from this research was developed using a design thinking method. The following are the results and discussion of this research:

Empathize

The empathize stage is carried out to understand the problems and needs faced by users by collecting information directly and on social media about user habits when using websites/applications for purchasing online tickets. Many problems are found that users face when buying tickets online, such as the existence of a group chat feature in the application, the absence of location points in the application, and late withdrawals of funds. This results in ideas

and solutions for creating the Discovery Event application, which will be created to solve the problems faced by users.

Define

At this stage, data is collected by conducting interviews with users and direct testing to obtain information about a problem that will become a reference when designing a prototype design for the Discovery Event application. The results obtained from some information obtained through interviews and application testing can be concluded that the Discovery Event application can be a solution for users/participants who want to buy tickets according to their wishes. Discovery Event provides a better, more straightforward, and more attractive UI, with a group chat feature to make it easier for users to communicate with other participants and event organizers, faster and more efficient withdrawal of funds, as well as the addition of a location point feature in the application to make it easier for users to find event locations.

Ideate

From the problem information obtained, a feature display will be created, which we feel will produce an attractive and intuitive interface for users, making it easier for them to use.

Prototype

In this stage, a visual design will be created, making it easier for users to operate the system. However, before making a prototype, 2 types of prototypes must be made, namely, a low-fidelity wireframe and a high-fidelity wireframe prototype. These are two crucial stages in reaching the fourth level of UI/UX design planning that will be implemented. Low-fidelity display is one of the crucial stages in this process(Ratna et al., 2023). There are 2 low-fidelity displays; the first is a low-fidelity display for members and a low-fidelity display for the Company.

The following is a low-fidelity display for members:



Figure 2. Low-fidelity member on the Login, Home, Event Details menu.



Figure 3. Low-fidelity members on the Maps, Checkout, and View Ticket menus.

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Figure 4. Low-fidelity members on the Ticket Details and Group Chat menus.



Figure 5. low-fidelity member on the Profile and Logout menu.

Here is what low-fidelity looks like for admins:



Figure 6. Low-fidelity admin on the Login, Home, Upload Event menu.



Figure 7. Low-fidelity admin on the Chat Group menu, Participants.

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Figure 8. Low-fidelity admin on the Withdraw Funds, Pay, and Proof of Payment

menu.

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Figure 9. Low-fidelity admin on the Profile, Logout menu.

After completing the low-fidelity creation stage, the next step is to create a high-fidelity wireframe. A high-fidelity wireframe is the final version of an application or website design created with great detail and accuracy(Rani et al., 2023). The creation process involves elements such as color, typography, icons, and other components, thus providing a clear picture of the application's or website's final appearance. This will make it easier for users to understand and interact with the interface. An example of a high-fidelity wireframe can be seen in the image below:

Here is the high-fidelity view for members:



Figure 10. high-fidelity in the login menu.





Figure 11. high-fidelity on the Home menu



Figure 12. high-fidelity on the Ticket menu





Figure 13. high-fidelity on the Chat Groupe menu

Figure 14. high-fidelity on the Profile menu

Here is the high-fidelity view for members:

Figure 15. high-fidelity on the Login menu

Figure 16. high-fidelity on the Home menu

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Figure 16. high-fidelity on the Group Chat menu

Figure 17. high-fidelity on the Withdraw Funds menu

Figure 18. high-fidelity on the Profile menu

Test

Then, testing was carried out using a method where the author looked for respondents to interview. Respondents were asked to try each feature of the resulting prototype, and assessments were carried out via a Google form. Test results show adequate satisfaction from users who tried the Event Discovery application.

In conducting the trial, the author selected 20 respondents who would try the Discovery Event application and fill out a Google form to assess user satisfaction with it.

Listed below are the names of individuals who have tested each feature of the resulting prototype and filled out the satisfaction assessment form via Google Form:

Hanas Pramudya Tama	Haya Zauza Yusra	
Salsa Bila Multajam Aswad	Lita Rahmawati	
Muhamad Bayu Aditya Pratama	Hafiz Safun Nizar	
Mutiara	Elsa Rosalina	
Mohammad Rizqulloh Ramadhan	Rizka Zulfiana	
Indra Ferdiansyah	Daffa Agung Pratama	
Muhammad Ammar Zuhdi	Dian Maharani	
Diandra Nugroho Susanto	Arini Saputri	Uktupi Nijunnihayah
Karyati	Deden Renhad Sudrajat	Muhammad Didit

Figure 19. Name of respondent who gave the assessment

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No	A list of questions	Survey Results
1	How comfortable are you with the user interface (UI) when using the application?	55% 15% • Sangat Nyaman • Nyaman • Netral • Tidak Nyaman • Sangat Tidak Nyaman

2	How easy could you understand our user interface (UI) navigation?	55% 20% Mudah Mudah Mudah Sulit Sangat Sulit
3	How do you respond to the structure and arrangement of information in the user interface (UI) that has been created?	50% 9 Jelas, tapi perlu beberapa pernaikan Netral 20% 30%
4	What do you think about colors and contrast used in user interfaces?	35% 30% 30% 35%
5	Do you find visual elements (icons, buttons, images, etc.) easy to understand and their function can be easily identified	60% 15% 80% 25% Sangat mudah dipahami Mudah di pahami Netral Sulit dipahami Sangat sulit dipahami
6	How much responsiveness of our user interface (UI) across various mobile devices?	50% Sangat responsif Responsif Netral Kurang responsif Sangat kurang responsif Sangat kurang responsif
7	To what extent are you satisfied with the consistency of the application's user interface (UI) design?	15% • Sangat puas 70% • Puas 15% • Netral • Tidak puas • Sangat tidak puas

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The user satisfaction survey revealed that the response regarding using the Discovery Event application was quite positive. After evaluation by respondents, the author also produces input from their responses, which can be used as a reference for developing the Discovery Event application design. The following are the results of the suggestions given by respondents. Questions asked to respondents: Are there any additional features or functions you would like in this application's user interface (UI)? If yes, please provide further explanation.

Answers from respondents:

Tidak ada
Nggak ada
Tidak
Tidak ada karena sudak cukup baik
sudah cukup baik
tidak, sudah cukup dan mudah di pahami
sudah cukup menarik dan mudah di pahami
tidak ada, sudah cukup baik
tidak ada, sudah keren banget
tidak ada, sudah keren banget dari segi tampilannya
sudah cukup menarik jadi tidak perlu di tambahkan fitur lagi
tidak ada, sudah cukup menarik dan mudah dipahami
tidak ada, sudah cukup
tidak ada
sudah cukup baik dan mudah di mengerti
tidak ada, sudah cukup baik
cukup menarik, tidak perlu di tambahkan fitur lagi
tidak ada, sudah cukup menarik tampilannya

Figure 20. Results of suggestions from respondents

CONCLUSION

From this research, it can be concluded that Discovery Event has an attractive and userfriendly interface for respondents. In addition, several inputs from respondents can be used as references for further research.

The results of this research can become a basis for further development, both as a reference in creating applications and journals. Adding features that are deemed lacking and

improving the appearance of applications that are considered too simple can make them more attractive and of high quality.

REFERENCES

- Adhitya, Muhammad, Dhita Pratama, Yudhi Raymond Ramadhan, and Teguh Iman Hermanto. 2022. "UI / UX Design for Japanese Language Learning Applications in High Schools Using the Design Thinking Method" 9 (4): 980–87. https://doi.org/10.30865/jurikom.v9i4.4442.
- Ardiansyah, Muhammad Fadil, and Perani Rosyani. 2023. "UI / UX Design of Inorganic Waste Processing Applications Using Design Thinking Methods" 1 (4): 839-53.
- Dumalang, Jovianto Marcellino, Chriestie EJC Montolalu, and Dodisutarma Lapihu. 2023. "UI/UX Design of Mobile-Based Food Sales Applications for MSMEs in Manado City Using the Design Thinking Method." Scientific Journal of Informatics and Computer Science (JIMA-ILKOM) 2 (2): 41–52. https://doi.org/10.58602/jima-ilkom.v2i2.19.
- Ghazali, Masitah, Norhaida Mohd Suaib, Sarina Sulaiman, Noraini Ibrahim, April Lia Hananto, and Aminah Beran. 2018. "Preliminary Work on Design Thinking: Addressing Challenges Using Low-Fidelity Prototyping with Rural Teenagers." Proceedings - 2018 International Conference on ICT for Rural Development: Rural Development through ICT: Concept, Design, and Implications, IC-ICTRuDEv 2018, no. October: 158-61. https://doi.org/10.1109/ICICTR.2018.8706867.
- Hananto, April Lia, and Aviv Yuniar Rahman. 2018. "User Experience Measurement On Go-Jek Mobile App In Malang City." In 2018 Third International Conference on Informatics and Computing (ICIC), 1-6. https://doi.org/10.1109/IAC.2018.8780423.
- Hartina, Ilmalia, Nurmalasari, and Taopik Hidayat. 2022. "INTI NUSA MANDIRI APPLICATION OF DESIGN THINKING METHOD IN DESIGN MODELS" 17 (1): 24-31.
- Huda, Baenil, Danny Manongga, Eko Sediyono, Sri Yulianto, Ahmad Fauzi, April Lia Hananto, Tukino, and Tarmuji. 2023. "Implementation of UI/UX the Design Thinking Approach Method in Inventory Information System." E3S Web of Conferences 448. https://doi.org/10.1051/e3sconf/202344802005.
- Huda, Muda Sirul, and Yusra Fernando. 2021. "E TICKETING SALES OF MUSIC EVENT TICKETS IN THE LAMPUNG AREA ON YOUR TICKETS USING THE

REACTJS LIBRARY" 2 (1): 96–103.

- Nadhif, Ahmad Khainur, Dian Taufiq W, Muh Fajar Hussein, and Ina Sholihah Widiati. Nd "UI / UX Design of Sales Applications Using a Design Thinking Approach" 7 (1): 44– 55.
- Nurmaharani, Shally, and Heriyanto. 2023. "SALES APPLICATION UI / UX ANALYSIS AND DESIGN" 9 (1): 46–53.
- Puteri, Yolla Athallah, Dini Aulia, Ajeng Alya, Kartika Sari, and Keywords. 2022. "Science and Technology Series IMPLEMENTATION OF DESIGN THINKING METHOD IN DESIGN Science and Technology Series P-ISSN 2477-3891 E-ISSN 2615-4765" 8 (2): 60–65.
- Putra, Danang Haryuda, Marsani Asfi, and Rifqi Fahrudin. 2021. "UI / UX DESIGN USING WEB-BASED DESIGN THINKING METHOD AT LAPORTEA COMPANY" 8 (1).
- Rani Puspita, and Rina Astriani. 2023. "Ui/Ux Design Design on the Mister Shop ID Store
 Website Using the Design Thinking Method." Journal of Engineering and Science 2 (3): 35–46. https://doi.org/10.56127/jts.v2i3.1047.
- Ratna Nur Fadilah, and Dhian Sweetania. 2023. "Designing a Ui/Ux Prototype Design for a Restaurant Reservation Application Using the Design Thinking Method." Engineering Scientific Journal 2 (2): 132–46. https://doi.org/10.56127/juit.v2i2.826.
- Ridwan Sulistyono, Muhammad, Agus Setiawan, Jl Mayjen Bambang Soegeng, Mertoyudan District, Magelang Regency, and Central Java. 2023. "Application of the Design Thinking Method for UI/UX Design of Website-Based E-Marketplace Systems." Journal of Information Systems Research 4(4): 1364–76. https://doi.org/10.47065/josh.v4i4.3534.
- Saputra, Dandi, Rafiati Kania, and Keywords. 2022. "Implementation of Design Thinking for User Experience in the Use of Digital Applications," 13–14.
- Setiyani, Lila, and Evelyn Tjandra. Nd "UI / UX Design Model for Student Complaint Handling Application Using Design Thinking Method (Case Study: STMIK Rosma Karawang)," 690–702.
- Shidqi, Muhammad, Bambang Agus, Central Floor Building, Campus Jl, and East Sidodadi. 2021. "UI / UX DESIGN DEVELOPMENT CASE STUDY OF CAMPAIGN APPLICATIONS USING DESIGN THINKING METHOD" 6 (Sens 6): 297–307.
- Shirvanadi, Elda Chandra. (2021). "UI/UX REDESIGN OF THE AMIKOM E-LEARNING SITE (CASE STUDY: AMIKOM CENTER)

JUSIKOM PRIMA (Jurnal Sistem Informasi dan Ilmu Komputer Prima)Vol. 7 No. 2, February 2024E-ISSN:2580-2879

Sufandi, Unggul Utan, Dwi Astuti Aprijani, and Paken Pandiangan. 2021. "Evaluation and Results of the User Interface Design Review of the Sitta Open University Mobile Application Prototype." National Journal of Informatics Engineering Education (JANAPATI) 10 (3): 147. https://doi.org/10.23887/janapati.v10i3.40281.
Syabana, Refly Ilham, and Pramana Yoga Saputra. 2020. "APPLICATION OF THE DESIGN THINKING METHOD IN USER INTERFACE DESIGN."