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Implementation of UI/UX Using Design Thinking Method in Tomsufood Application

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ABSTRACT

Tomsufood is one of the online food ordering applications. To provide the best experience in ordering food, Tomsufood designed a new application product. An approach called Design Thinking was used in this study. The Design Thinking method is a software product design approach that is based on innovation and relies on problem-solving techniques. After identifying and understanding the problem obtained through the process of identifying the problem, describing the solution, empathizing with the user, and prototyping and testing. So that the Tomsufood application is able to solve problems that occur in society. The results of the study showed that the application of the Design Thinking method was able to produce a UI/UX design that was more intuitive and responsive to user needs. Users reported increased satisfaction in using the application, which included ease of navigation, clarity of information, and efficiency in the food ordering process.

Keywords: UI/UX, Design Thinking, Tomsufood, User Experience

INTRODUCTION

You can apply this strategy if there is a change in people's perspective due to the rapid advancement of technology that changes all aspects of life, including their way of thinking. One example is an adequate Internet response. starting from communication, social media to shopping. UI/UX is a technological development that uses digital resources or the Internet to design a product that is highly visible and usable, and increases user comfort and convenience when using a product or service.[1] using Design Thinking techniques for UI/UX development and analysis[2]To ensure the success of an application, software developers must prioritize user experience (UI/UX) to meet user needs and expectations. This application also aims to provide an optimal experience for users in exploring, ordering, and enjoying food services.[3]By using this application, one can develop a food menu that includes a price list and image display according to the type of food available. In addition, this application can

facilitate the process for officers and buyers to maximize the effectiveness and efficiency of worker time. And using a database that allows it to produce information quickly, precisely, and accurately[4]. Through the implementation of Design Thinking, it is expected that this application can provide a superior user experience, increase user retention, and support the application's business goals. The UI/UX development process using the Design Thinking method is expected to produce innovative solutions that meet the actual needs of users.[5]. With the growing trend of ordering food online, this application is here as an application that not only simplifies the food ordering process, but also provides a fun and efficient experience for users.[6].Food ordering apps like these are becoming an essential element in the modern culinary ecosystem. By providing efficient and satisfying services, these apps contribute to a paradigm shift in the way we order and enjoy food. In this guide, we will explore further how apps can deliver a superior food ordering experience through thoughtful UI/UX design and innovative thinking. The UI/UX interface will be developed by leveraging data gained from identified issues to address and improve the ordering process. Leveraging internet techniques for marketing is essential to increasing sales revenue for businesses.[7]

METHODS

In this study, the approach used for the layout of the display is the “design thinking” approach, which is called the complete wonder method which specializes in generating solutions, starting with the method of empathizing with the right desires, this is a human being who is targeted closer to sustainable innovation. mainly based entirely on desires[8]. Figure 1 below can also be seen that the design thinking stages have five stages, namely: empathize, define, ideate, prototype and testing. Because each of these five steps serves as a prerequisite for the next step, they are often completed in that order.

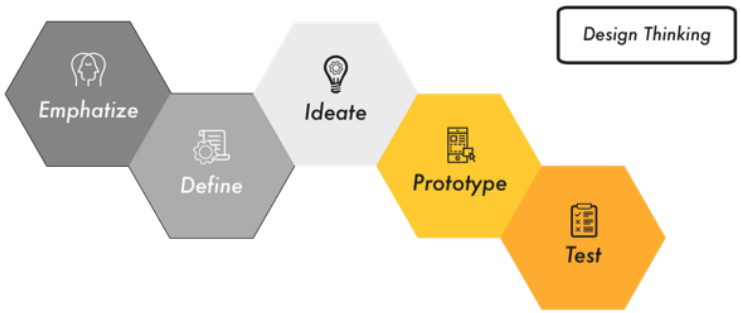


Figure 1. Diagramstages in the design thinking method

Source :[5]

Empathize

At this point, an analysis of the problems faced by consumers is carried out. To characterize the problem and develop the soul design, researchers collect data during the empathy stage regarding resource availability, user habits, difficulties that arise, and other topics. As a result, data is collected at this time to help the next procedure.[9]

Define

The results of the empathy stage are examined and defined thoroughly in relation to the system's pain points during the step*define*.[10]

Ideate

The third stage of the design process, known as the design stage,*idea*in*design thinking*, is when researchers try to generate as many original and innovative ideas as possible to address problems or overcome obstacles that have been identified during the determination stage.[11]

Prototype

This phase may be referred to as the initial concept design.[12], The final result of a*prototype*will be observed or re-analyzed before being released to the public to determine the level of success and failure of the media created.

Testing

Testing is done to ensure the product functions properly and to assess the performance of the prototype. Users test the completed prototype and offer feedback to help improve the quality of the product.[13].

RESULTS AND DISCUSSION

UI design creation on the Tomsufood ordering application using Figma with the design thinking method for food ordering media. The following are the results of the analysis and design of the Tomsufood Application UI design

Empathize

The empathy stage is the initial stage in redesigning the Tomsufood application, at this stage to first find out the needs of the interests, make it easier and general users regarding the anticipated ordering application based on the findings of the research conducted.

Define

This determination stage, the problem that can be concluded from the empathize process is to make it easier for buyers to order food and drinks. By creating an online food ordering application that can make it easier for users to determine food and drink choices easily.

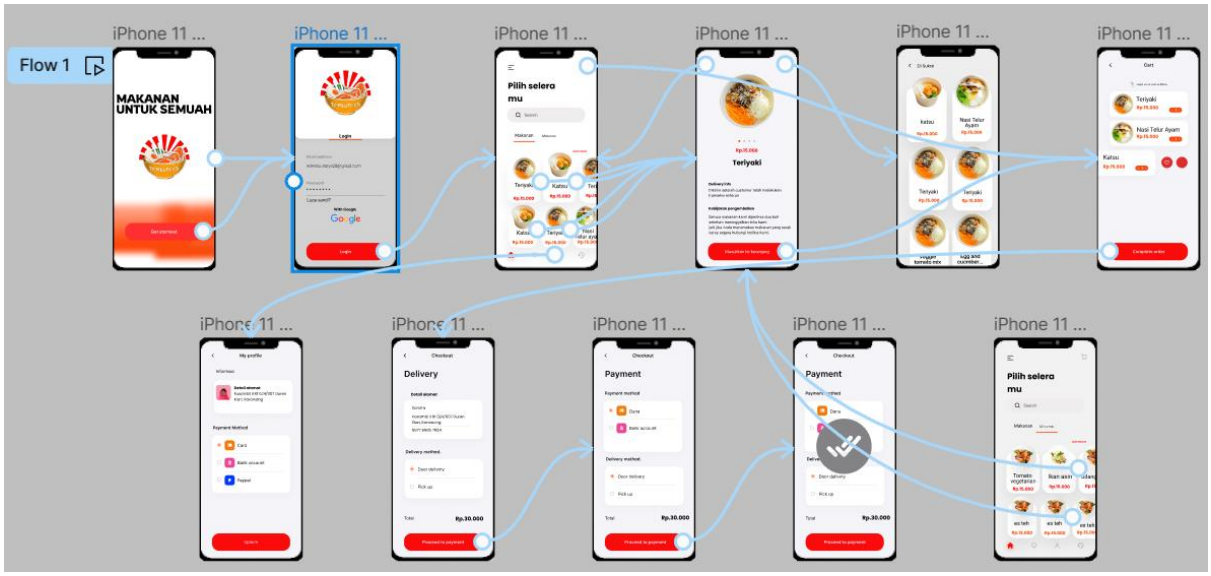
Ideate

*Idea*from the previous stage is how to create an application that can solve the problems of people who want to order food and drinks but do not have much time and people who do not want to be complicated. Users will give an assessment after they use the application. Thus we have the hope to shape the character of the user so that prospective users who believe and are confident when using the ordering application. The target users of this application are the general public.

Prototype

At this point, we need to restructure the application ordering flow and establish a methodology for building its features. To guide the application simulation design process, a digital prototype

is used. The application creation process flow with the Figma Digital Prototype application is shown in the figure below.



Testing

Using a digital prototype created with Figma, the application was tested in the final stage. Respondents were given a questionnaire to fill out in order to conduct the test. A list of written questions was given to participants in the questionnaire, which is a data collection tool. By distributing the questionnaire to each respondent directly, If the response is sufficient, this strategy can be applied. We will ask six questions to prospective testers about the developed application prototype, with the option for them to provide input and recommendations. The questionnaire questions that will be responded to by the examiner are listed in Table 1.

No	Question
1	How comfortable are you with the user interface (UI) when using the sales system?
2	How do you respond to the structure and arrangement of information in the user interface (UI) that has been created?
3	Do you find the visual elements (icons, images, etc.) easy to understand and can you easily identify their function?
4	What do you think about the colors and contrast used in the user interface?
5	How easy was it for you to navigate our user interface (UI)?
6	Are there any additional features you would like in the sales system user interface (UI)?

Table 1. Questionnaire Questions

There are 100 respondents, of which 100 respondents must answer 6 questions.

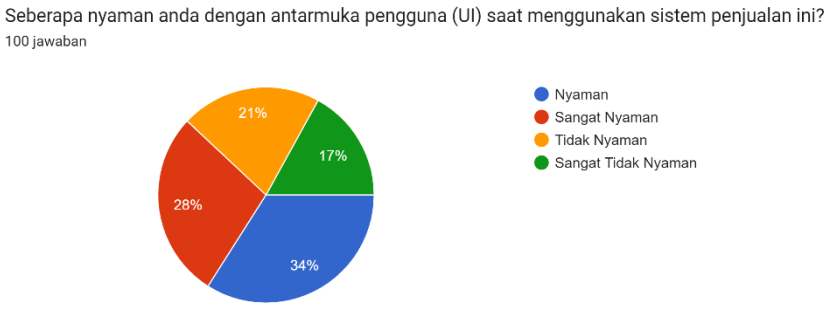


Figure 1. Question No. 1

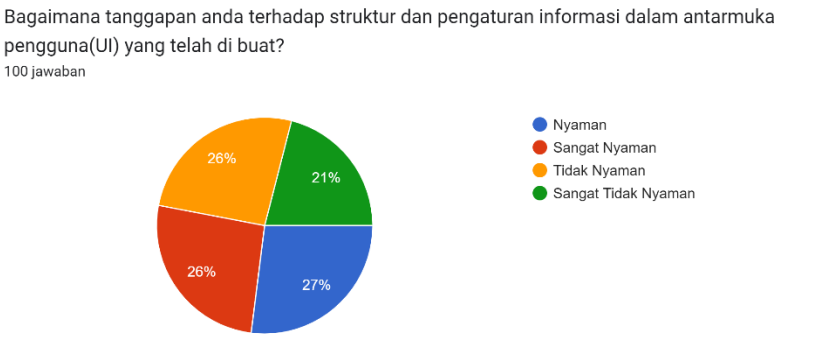


Figure 2. Question No 2

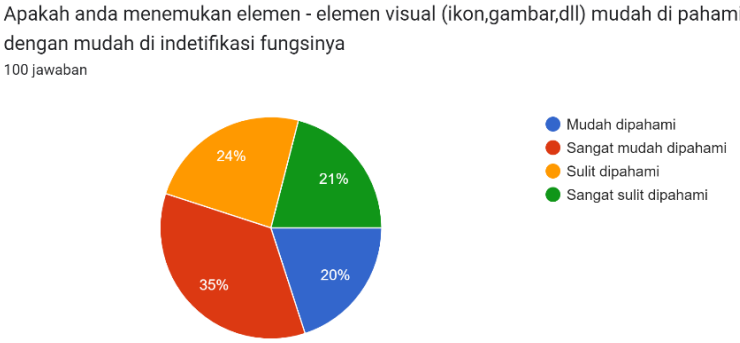


Figure 3. Question No 3

Figure 4. Question No. 4

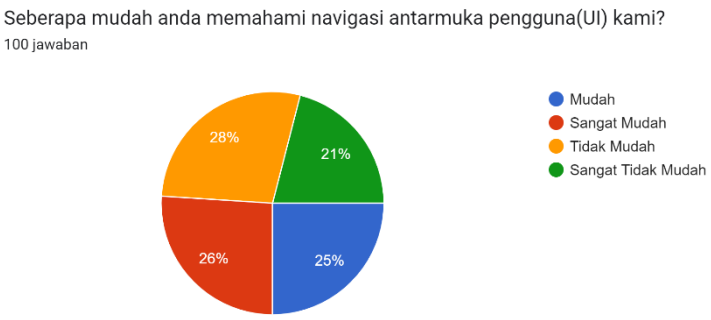


Figure 5. Question No 5

Reporting Research Results

UI/UX research on the Tomsufood ordering application aims to improve user experience through the application of Design Thinking. This process includes the stages of understanding user needs, prototyping, and testing. Case studies show that applications designed with this approach result in high levels of user satisfaction, reduce errors in ordering, and increase operational efficiency.

CONCLUSION

Good answers were given by respondents when asked about making applications using the design thinking process after testing digital prototypes on the Figma application, but there were also respondents who were less comfortable and did not understand the icons, contrasting colors. Here we can conclude that the Tomsufood application needs to make improvements for design thinking.

REFERENCES

D. Haryuda, M. Asfi, and R. Fahrudin, "UI/UX Design Using Web-Based Design Thinking Method at Laportea Company," J. Ilm. Technol. Ap. Infomasi., vol. 8, no. 1, pp. 111–117, 2021, doi: 10.33197/jitter.vol8.iss1.2021.730.

H. Herfandi, Y. Yuliadi, MTA Zaen, F. Hamdani, and AM Safira, "Implementation of Design Thinking Method in UI and UX Development," Build. Informatics, Technol. Sci., vol. 4, no. 1, pp. 337–344, 2022, doi: 10.47065/bits.v4i1.1716.

M. Suparman et al., "Understanding the FIGMA Application to Make Content More Interactive in the Society 5.0 Era," Abdi J. Publ., vol. 1, no. 6, pp. 552–555, 2023, [Online]. Available: https://jurnal.portalpublikasi.id/index.php/AJP/index

D. Haerofifah, "Design of Web-Based Food Ordering Application," Nuansa Inform., vol. 16, no. 1, pp. 101–107, 2022, doi: 10.25134/nuansa.v16i1.4771.

AA Razi, IR Mutiaz, and P. Setiawan, "Implementation of Design Thinking Method on Ui/Ux Design Model of Application for Handling Reports of Lost and Found Items," Desain Komun. Vis. Manaj. Desain dan Periklanan, vol. 3, no. 02, p. 219, 2018, doi: 10.25124/demandia.v3i02.1549.

R. Setiawan and W. Nugroho, “Design and Construction of Android-Based Food Ordering Application,” J. Inf. Syst. Informatics, vol. 3, no. 2, pp. 329–340, 2021, doi: 10.33557/journalisi.v3i2.132.

DA Ismail, “Implementation of UI/UX Design on Web-Based Sales System Using Thinking Design Method,” vol. 4, pp. 5737–5748, 2024.

M. Hamdandi, R. Chandra, F. Bachtiar, N. Lais, DA Sastika, and MR Pribadi, “UI/UX Design on Bapakkost Idemopet Application Using Design Thinking Method,” MDP Student Conf. 2022, vol. 1, no. 1, pp. 504–511, 2022.

AA Anwar, B. Huda, E. Novalia, T. Paryono, and S. Piantara, “UI/UX Development on Buana Online Course Application Using Design Thinking Method (Case Study: Buana Perjuangan University, Karawang),” INTECOMS J. Inf. Technol. Comput. Sci., vol. 5, no. 2, pp. 119–124,

DS Bila and DR Indah, “UI-UX Redesign of BKKBN Website Design of South Sumatra Province Using Design Thinking Method,” KLIK Kaji. Ilm. Inform. and Comput., vol. 3, no. 6, pp. 746–753, 2023, doi: 10.30865/klik.v3i6.870.

MF Ardiansyah and P. Rosyani, “UI/UX Design of Inorganic Waste Processing Application Using Design Thinking Method,” Log. J. Comput. Sci. and Educ., vol. 1, no. 4, pp. 839–853, 2023, [Online]. Available:

FR Isadora, BT Hanggara, and YT Mursityo, “Designing User Experience in the HomeCare Mobile Application of Semen Gresik Hospital Using the Design Thinking Method,” J. Technol. Inf. and Comput. Science., vol. 8, no. 5, pp. 1057–1066, 2021, doi: 10.25126/jtiik.2021844550.

S. Ansori, P. Hendradi, and S. Nugroho, “Application of Design Thinking Method in Designing UI/UX of SIPROPMAWA Mobile Application,” J. Inf. Syst. Res., vol. 4, no. 4, pp. 1072–1081, 2023, doi: 10.47065/josh.v4i4.3648.