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User Experience of the XYZ Application Using the Design Thinking Method

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ABSTRACT

This study discusses the redesign of the user experience (UX) of the XYZ service application, which has faced various user complaints, such as inaccurate delivery time estimates, limited cancellation features, and confusing navigation. To address these issues, the Design Thinking methodology was employed, comprising five stages: empathize, define, ideate, prototype, and test. Data were collected through user questionnaires, which served as the basis for formulating new design solutions. The prototype was designed using Figma and tested through the Maze platform. UX evaluation combined results from the System Usability Scale (SUS), involving 14 respondents, and user interaction performance analysis. The findings indicate that most users found the system easy to use and intuitive, with a task success rate of 75% during prototype testing. These results demonstrate that a systematic application of Design Thinking can significantly improve the quality of UX by addressing real user needs. Nonetheless, certain aspects, such as irrelevant features and remaining navigation issues, were noted as areas for future iteration. This study concludes that a user-centered approach is highly effective in creating more adaptive and solution-oriented outcomes in digital service application development.

Keywords: User Experience, Design Thinking, System Usability Scale, Figma, Maze

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INTRODUCTION

In the digital era, the rapid advancement of technology has positioned user experience (UX) as a critical factor in the success of service based applications. XYZ, a well known on demand service platform in Southeast Asia, is currently facing significant challenges in maintaining the quality of its user interactions. Persistent complaints such as prolonged driver-matching times, inaccurate maps, the absence of a cancellation feature for problematic orders, and inconsistent delivery time estimates indicate a general decline in user satisfaction. These issues not only disrupt the application's core functionality but also negatively affect users' perceptions and comfort when engaging with the XYZ service.

This situation reflects a gap between user expectations and the actual experience when using the application. Therefore, a user centered approach is essential to understand users' needs, expectations, and frustrations. One approach proven effective in developing solutions based on real user needs is the Design Thinking method. This method emphasizes the importance of empathy in the design process and provides space for idea exploration, prototype development, and direct user testing.

This approach has been applied in various digital system developments, ranging from public complaint applications [1], academic websites [2], location tracking systems [3], to community-based digital services [4].

Numerous studies have demonstrated that the systematic application of Design Thinking can

significantly improve interface quality and user experience. For example, the redesign of the Go Siaga application using the Design Thinking stages successfully enhanced various usability aspects of the app [1]. Similar improvements were also observed in the redevelopment of the Ogan Lopian application and the UNIMMA student admission system, both of which achieved high scores in usability testing and user satisfaction [2], [5]. These findings suggest that Design Thinking is capable of addressing a wide range of design challenges based on users' functional and emotional needs.

Nevertheless, previous studies have not specifically addressed UX issues in the XYZ application, particularly in relation to the features that frequently attract user complaints. While the study by Wongso and Sari [6] has examined the impact of UX writing on user experience in XYZ, it did not explore functional aspects such as driver tracking or accurate delivery time estimation. This highlights the need for further research that focuses more directly on redesigning UX based on the real problems experienced by XYZ users.

Based on the above discussion, the main research question addressed in this study is: How can the Design Thinking approach be utilized to redesign the user experience of the XYZ application, particularly in terms of order cancellation features, delivery time estimation, and accurate map display?

The objective of this study is to redesign key elements of the XYZ application related to user satisfaction, using the Design Thinking method as the primary approach. This research is expected to offer practical contributions in the form of a more user-friendly application prototype, while also enriching the literature on the application of Design Thinking in the development of complex commercial applications based on real user needs.

LITERATURE REVIEW

In modern digital application development, User Experience (UX) plays a vital role in shaping users' perceptions and responses to the services provided. UX goes beyond visual design or interface layout; it also encompasses how effectively the system delivers ease of use, comfort, and satisfaction throughout the interaction process. Factors such as access speed, clarity of information, and a sense of security and control during usage are essential components of the overall user experience[6].

To create a responsive UX that aligns with user needs, the Design Thinking approach is often employed as a framework for the redesign process. This method emphasizes a deep understanding of user needs, identifying core problems, exploring potential solutions, building prototypes, and testing them directly. The five key stages of Design Thinking empathize, define, ideate, prototype, and test enable system designers to generate innovations that are not only technically effective but also contextually relevant in real-world usage [1], [2], [4]

The stages of the Design Thinking method are as follows:

1. Empathize – The initial stage in which designers aim to understand users' needs, behaviors, and emotions through observation, interviews, or surveys.
2. Define – Information from the empathize stage is analyzed to clearly and accurately formulate the core user problems.
3. Ideate – The team begins exploring a wide range of creative solutions without immediately seeking a perfect answer.
4. Prototype – Selected ideas are developed into initial designs (wireframes or mockups) to allow visualization and preliminary testing.
5. Test – The prototype is tested directly with users to assess whether the proposed solution meets their needs, serving as a foundation for further iterations.

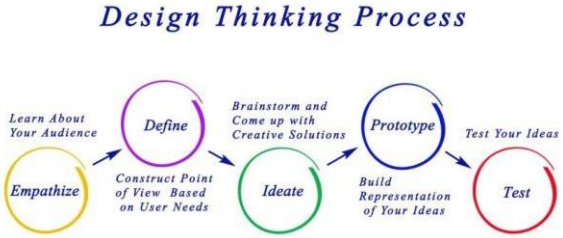

Figure 1. Design Thinking Steps

Various studies have demonstrated the effectiveness of this approach. For example, in [1], the application of Design Thinking in a public complaint system led to significant improvements in effectiveness, efficiency, usability, user satisfaction, and learnability. A similar outcome was observed in the redesign of the Ogan Lopian application [2], which achieved a remarkably high usability score of 93.5 based on the System Usability Scale (SUS). These results suggest that user feedback-driven design can produce systems that are easier to use and more enjoyable overall.

The SUS itself is a widely adopted tool for evaluating system usability. Through ten Likert-scale items assessed by users, SUS provides a quantitative score that reflects how well a system performs from the user's perspective. Several studies have shown that using SUS to evaluate Design Thinking-based redesigns offers strong indicators of UX design success[3], [5], [7].

During the prototyping phase, Figma has become a highly popular tool among designers. As a cloud-based design platform, Figma enables real-time collaboration for creating UI/UX designs that are both visual and interactive. It has been utilized in numerous Design Thinking based redesign projects, including the UNIMMA academic system [5], the SH-UPI application [4], and the Digidesa village digital service [8].

To support prototype testing, Maze serves as a remote usability testing solution that integrates directly with Figma. Maze enables users to complete task scenarios and provides analytical data such as task success rate, completion time, click heatmaps, and direct feedback. With Maze, UX evaluation becomes more efficient and measurable, as demonstrated in [8].

Although Design Thinking has been widely used, there is still a lack of research specifically addressing its application to the XYZ application, particularly within the context of XYZ's services. Existing research has focused on the impact of UX Writing on user perception, but has yet to explore functional aspects such as driver tracking, time estimation, and cancellation flexibility [9]. Therefore, this study aims to fill that gap by applying the Design Thinking approach to redesign the UX of the XYZ application, testing the results using Figma and Maze, and evaluating the final design through the SUS framework.

METHODOLOGY

This study employs a qualitative approach aimed at gaining a comprehensive understanding of user behavior and experiences with the XYZ application, particularly in relation to the XYZ feature. This approach was selected for its ability to capture subjective and contextual information such as user frustration, expectations, and perceptions of service quality that cannot be adequately explained through numerical data or statistics alone. As such, the qualitative method is deemed appropriate for deeply identifying users' actual needs, which then serve as the foundation for redesigning the user interface and experience (UX).

As a framework for designing UX solutions, this study adopts the Design Thinking method. Known for its human centered orientation and iterative, flexible problem-solving approach, Design Thinking is particularly relevant when the design process must begin with empathetic understanding of user issues and align with the dynamic behavior of users interacting with the application.

The steps of the Design Thinking method applied in this study are as follows:

1. Empathize: In this initial phase, data was collected from users via questionnaires to gain insights into their experiences using the XYZ application. The primary focus was to identify

complaints related to the XYZ feature, such as inaccurate time estimations, driver delays, and the lack of a cancellation option during problematic orders.

2. Define: The results of the questionnaire were then analyzed to formulate specific and in-depth core problems. This phase aims to clarify the development focus, ensuring that the proposed solutions directly address users' actual needs.
3. Ideate: Based on the identified problems, the researcher explored multiple alternative solutions to address user challenges. This creative and open-thinking phase aimed to generate innovative features such as dynamic delivery time estimates, delay notifications, and automatic cancellation functionality.
4. Prototype: The selected ideas were translated into a prototype using Figma, a web-based interface design platform that enables visual and interactive design collaboration. The prototype presents new feature designs tailored to insights derived from user needs analysis.
5. Test: The testing phase utilized Maze, a remote usability testing platform integrated directly with Figma. In this phase, users were asked to interact with the prototype and complete a series of tasks. Maze automatically collected data such as task success rate, interaction duration, and click heatmaps to illustrate navigation patterns.

RESULTS AND DISCUSSION

The redesigned prototype of the XYZ application, developed using the Design Thinking approach, has undergone an evaluation phase involving users as the primary participants. This evaluation aims to assess the extent to which the UX design addresses user problems both functionally and emotionally. To support the evaluation process, two main methods were employed: completion of the System Usability Scale (SUS) questionnaire by users and direct prototype testing via the Maze platform.

A total of 14 respondents participated in completing the SUS questionnaire. Each respondent was asked to provide ratings for ten statements that reflect various aspects of system usability. The questionnaire employed a five-point rating scale: Very Good, Good, Fair, Poor, and Very Poor. The statements covered several critical dimensions, including ease of use, the need for external assistance, comprehension of features, and the user's confidence in the overall functionality of the system.

The table below presents a summary of the evaluations for each statement in the SUS questionnaire:

Tabel 1. System Usability Scale Result

No	Statement	Very Good	Good	Fair	Poor	Very Poor
1	I found the system easy to use	10	3	1	0	0
2	I think I would need the support of a technical person to use this system	8	5	1	0	0
3	I found the functions in this system well integrated	12	1	1	0	0
4	I felt confident using the system	9	1	2	2	0
5	I found the system unnecessarily complex	10	2	1	1	0
6	I found inconsistencies in the system	6	2	3	3	0
7	I could quickly understand how to use the features in the system	11	2	1	0	0
8	I thought the system was easy to navigate	8	3	2	1	0
9	I felt comfortable using the system	9	3	2	0	0
10	I found many features in the system unnecessary	7	4	2	1	0

Based on the table above, it can be observed that the majority of users provided positive evaluations of the tested system. Most respondents perceived the system as easy to use and relatively straightforward. This is evidenced by the first and third statements, which received dominant scores in the "Very Good" category. Additionally, users' perception of the ease of understanding features was also high, as reflected in the seventh statement, which scored highly in the top two rating categories.

However, despite the overall positive trend, several noteworthy issues remain. Some respondents indicated that the system contained unnecessary features, and a number of users stated that they required assistance when using the application for the first time. This suggests that certain aspects of the navigation or information architecture may not be fully intuitive for all users. These findings serve as important input for further refinement in the next design iteration.

To complement the quantitative results from the questionnaire, a direct usability test was conducted using the Maze platform. In this phase, users were assigned predefined tasks such as placing a food order and attempting to use the order cancellation feature. The results showed that 75% of users successfully completed the full task flow. This indicates that the majority of users were able to understand and navigate the redesigned features of the prototype effectively. Nevertheless, approximately 25% of users experienced difficulties, particularly with the order cancellation navigation and estimated delivery time display.

Overall, the results from both evaluation methods demonstrate that the application of the Design Thinking approach in the redesign of the XYZ application significantly improved the quality of the user experience. The SUS questionnaire provided insights into users' perceptions regarding ease of use, comfort, and satisfaction, while the Maze testing confirmed how well users could interact with the system in a practical and intuitive manner. The combination of subjective feedback and objective performance data offers a strong foundation for developing more effective and user-relevant design recommendations.

CONCLUSION

This study was conducted to address the need for enhancing the quality of User Experience (UX) in the XYZ service, which has long posed several issues for its users, such as inaccurate delivery time estimations, limited control over order cancellations, and complex navigation. By employing the Design Thinking approach, solutions were iteratively designed with users placed at the center of the design process. The five stages empathize, define, ideate, prototype, and test were systematically implemented to develop UX designs that are relevant, solution-oriented, and contextual.

In the initial phase, user needs and pain points were identified through open-ended questionnaires. The findings from this stage informed the formulation of core problems and the generation of design ideas that were more adaptive to users' real-world situations. These ideas were realized into an interactive prototype using Figma, with a focus on navigational simplicity, information transparency, and flexible user control throughout the food ordering process.

Evaluation of the prototype was conducted using two complementary methods: the System Usability Scale (SUS) questionnaire and usability testing via the Maze platform. The SUS responses from 14 participants revealed that, in general, the system was perceived as easy to use, straightforward, and the features were well understood. This was further supported by the Maze testing results, which indicated that 75% of users successfully completed the assigned tasks without significant issues. These findings suggest that most users were able to navigate the redesigned system intuitively and efficiently.

Despite these positive outcomes, the evaluation process also revealed areas for improvement. Some users reported encountering irrelevant features or slightly confusing navigation at certain points. These insights serve as valuable feedback for future design iterations, aimed at further refining the overall user experience.

In conclusion, the Design Thinking approach applied in this study successfully produced a more user-friendly prototype of the XYZ application. Through the combination of qualitative methods, collaborative design using Figma, and participatory testing via Maze, this research demonstrates that effective UX design stems from a deep understanding of user needs. The results not only indicate improvements in functional aspects but also highlight an experience that is more intuitive, comfortable, and aligned with users' everyday expectations of the XYZ application.

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