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User Interface & User Experience Design of the BangSatria Joki Website Using the Design Thinking Method

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ABSTRACT: The rapid growth of the online gaming industry has created various new economic opportunities, one of which is game boosting services. However, many platforms offering such services have not yet optimized their user interface (UI) and user experience (UX) design, resulting in poor user comfort and trust. This study aims to design the UI and UX of the BangSatria Joki website as a platform for game boosting services by applying the Design Thinking method. The Design Thinking approach consists of five stages: Empathize, Define, Ideate, Prototype, and Testing. The initial stages involved observing competitor websites and conducting interviews with potential users to identify their needs and challenges. The analysis results were then translated into user personas, brainstorming, mind mapping, and wireframe designs. A high-fidelity prototype was then developed using Figma. In the testing phase, the System Usability Scale (SUS) was used to evaluate user satisfaction with the design. Based on tests conducted with 57 student respondents, the website prototype received a SUS score of 78.9, indicating an ”acceptable” category and overall positive reception. Therefore, the UI/UX design developed using the Design Thinking approach has proven to meet user needs and improve the overall experience of using an online game boosting service.

Keywords: UI/UX Design, Game Boosting Service, Design Thinking, Figma, System Usability Scale (SUS)

I. INTRODUCTION

The development of online games is currently very attractive, attracting many enthusiasts from various ages, from adults to teenagers, and even elementary school children. Online games are visual-based games played through computers or devices connected to a

network, such as LAN or the internet. When played, these games present challenges [1]. Thus, people's interest in playing online games is very high, ranging from adventure games to strategy games. Many people utilize game providers and game centers due to the abundance of online games. This also includes game fans and players. Initially, online game players only played for entertainment and to relieve stress [2].

In this continuously developing digital era, Generation Z, born between 1995 and 2010, grew up in an environment very familiar with digital devices and online games. However, behind this popularity, there are growing concerns about the negative impacts of game addiction. Although online games can provide entertainment and opportunities for socializing, individuals involved in these games often experience serious mental health problems. Research shows that frequently losing in games can trigger mental health issues such as depression, anxiety, and other emotional disorders [3].

Furthermore, game boosting is a service that helps others by playing or managing the customer's game account to achieve certain targets. A game booster can also be defined as someone skilled at playing games so that the skills they possess can be "sold." Along with the increasing demand for game boosting services, various implications need to be considered, both socially and psychologically. On one hand, this job provides opportunities for teenagers to earn additional income. On the other hand, there are also security risks associated with sharing game accounts [4].

In the context of the rapid growth of the online gaming industry, where more players are seeking game boosting services, it is important to understand that the quality of user experience can affect the popularity of these services. Therefore, designing the UI/UX of an application is crucial to understanding the needs of potential users. One of the widely used tools for UI/UX design is Figma [5]. Figma is a cloud-based application that allows designers to collaborate simultaneously and is used to create interfaces for websites and digital prototyping [6].

To create a design that aligns with user needs, this research applies the Design Thinking method. This method focuses on empathy for customers and consists of five stages: Empathize, Define, Ideate, Prototype, and Testing [7]. Based on the background described, the problem formulation of this research is: How to apply the Design Thinking method to design the UI/UX for the BangSatria Joki website to enhance user experience and support service success using Figma according to customer needs? The objectives of this research are: (1) to design an attractive, easy-to-use UI/UX for the BangSatria Joki website that meets user needs, (2) to apply the Design Thinking method in the design process, and (3) to improve user comfort and satisfaction through functional, aesthetic, and easy-to-navigate design.

II. RELATED WORK

Several previous studies related to UI/UX design using Figma and the Design Thinking method have been conducted. A summary is presented in Table I.

Table 1: Summary of Previous Research

No	Author (year)	Method & Tools	Result
1	Avindra et al. (2021)	Design Thinking, Figma	Produced an analytics application prototype compatible with mobile devices
2	Kurniawan & Budi (2022)	Design Thinking, Figma	Obtained UEQ scores above 2.0; average SUS score of 93 (grade A)
3	Tazkiyah & Arifin (2022)	Design Thinking, Figma	Produced a website design for the Energy Laboratory
4	Al-Faruq et al. (2022)	Design Thinking, Black Box Testing, Figma	Produced a virtual tourism prototype; 96.15% validity in testing
5	Pamungkas (2023)	Prototype, Black Box Testing, Figma	Produced a food sales application prototype; black box testing showed no defects
6	Nur Rifa & Darso (2024)	Design Thinking, SEQ, Maze.co	Implemented Design Thinking; SEQ scores: Task 1 (6.2), Task 2 (6.8), Task 3 (6.4)
7	Ratna Nur Fadilah & Dhian Sweetania (2023)	Design Thinking, Usability Testing, Figma, Maze	Usability testing score of 85 (81.6% processing result)
8	Wardana et al. (2022)	Design Thinking, Usability Testing, Maze	Usability test results from 5 respondents above 90%
9	Rachman et al. (2023)	Design Thinking, Usability Testing, Maze	Average SUS score of 93 (grade A); UEQ scores above 2.0
10	Prayogo et al. (2024)	Design Thinking, SUS, Maze	Obtained a SUS score of 74.8
11	Khadijah (2022)	Systematic Approach	User needs analysis and iterative testing produce more relevant designs
12	Faridha et al. (2024)	Lean UX, Miro, InVision, Sketch	Rapid prototyping and continuous iteration improve design efficiency
13	Reva Eka Prasetyo, Tan Amelia (2022)	Design Thinking, Human Centered Design	In-depth user needs analysis produces designs that meet expectations

Based on the comparison, this study has similarities with previous research in using the Design Thinking method and Figma as a design tool. However, this study specifically focuses on designing UI/UX for a game boosting service website, an area that has not been extensively explored. The novelty of this research lies in the application of Design Thinking to address the specific trust and security concerns of game boosting service users, which were identified as major barriers in the empathize stage.

III. METHOD

This research uses the Design Thinking method, which consists of five stages: Empathize, Define, Ideate, Prototype, and Testing. The research stages are illustrated in Figure 1.

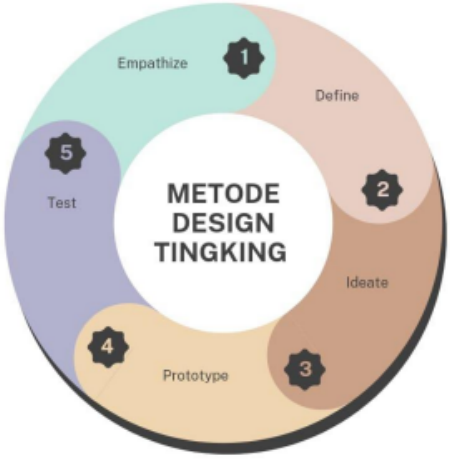

Figure 1: Research Stages (Design Thinking Method)

A. Research Object Identification

The object of this research is the UI/UX design of the BangSatria Joki website, a planned game boosting service platform. The research focuses on creating a design prototype without technical system development.

B. Data Collection

Data collection was carried out using two methods:

- **Observation**: Direct observation of the planned BangSatria Joki website and competitor websites (ItemKu, OURASTORE, TAKAPEDIA) to analyze features and interface design.
- **Interviews**: Semi-structured interviews were conducted with five active online game players (students aged 15-21 years) via Zoom to understand their needs, concerns, and expectations regarding game boosting services.

Table 2: Interview Results with Potential Users

Question	Stiase	Randy	Zizah	Bagas	Reza
Hours gaming per day	2 jam	5–10 jam	5–6 jam	2 jam	4–6 jam
Most played game	ML	ML	ML & PUBG	ML	ML & Valorant
Used boosting service?	No	No	No	No	Once
Reason never/rarely	Afraid of scam; Not needed; Distrust; Afraid of account loss; Slow admin communication				

C. Research Procedure

The research procedure follows the five stages of Design Thinking:

1. **Empathize**: Understanding user perspectives through observation and interviews.
2. **Define**: Formulating problems based on empathy results, creating user personas, and classifying user needs.
3. **Ideate**: Generating creative solutions through brainstorming, mind mapping, and creating low-fidelity wireframes.
4. **Prototype**: Creating high-fidelity interactive prototypes using Figma.
5. **Testing**: Evaluating the prototype using the System Usability Scale (SUS) with 57 respondents.

D. Data Analysis

Data from interviews were analyzed qualitatively to identify patterns of user needs, concerns, and expectations. User personas were created as fictional representations based on actual user data. The classification of user needs is presented in Table III.

Table 3: Classification of Potential User Needs

No	User Need	Proposed Design Solution
1	Simple navigation & display	Intuitive navigation design and organized page structure
2	Clear & transparent pricing	Complete price list on a dedicated page
3	Fast & practical ordering system	Concise and easy-to-fill ordering form
4	Direct communication with admin	Live chat feature and active WhatsApp link
5	User testimonials	Testimonial column from previous customers
6	Work progress tracking	Real-time work status display or notifications

E. System Evaluation

The final evaluation was conducted using the System Usability Scale (SUS) questionnaire, which consists of 10 statements (5 positive, 5 negative) answered on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The SUS score was calculated using the standard formula, and the final score (0-100) was interpreted using the acceptability range, grade scale, and adjective ratings.

IV. RESULT AND DISCUSSION

A. Prototype Results

The high-fidelity prototype was created using Figma, consisting of the following main pages: Homepage, Promo, Services, Service Description, Game Selection, Package Selection, Pricing, Testimonials, Login/Register, Order Form, Thank You Page, User Profile, and Order Details. Figure 2 shows the homepage design.

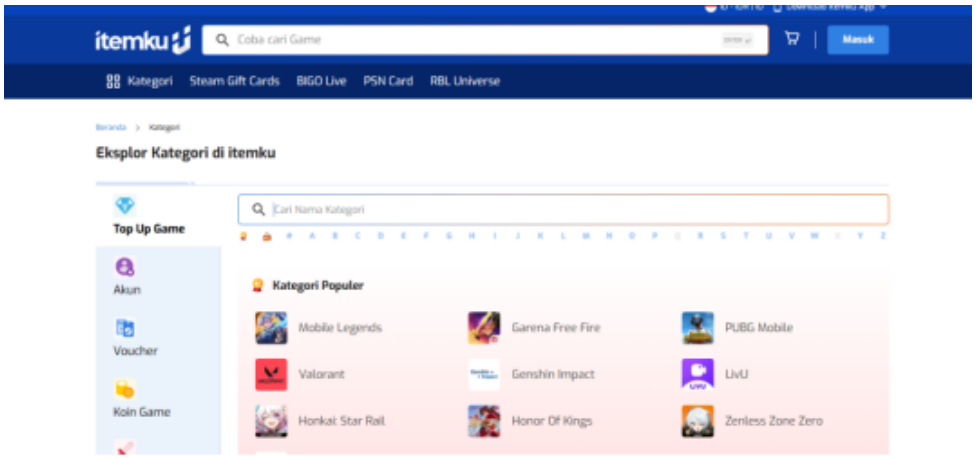

Figure 2: Homepage of BangSatria Joki Website

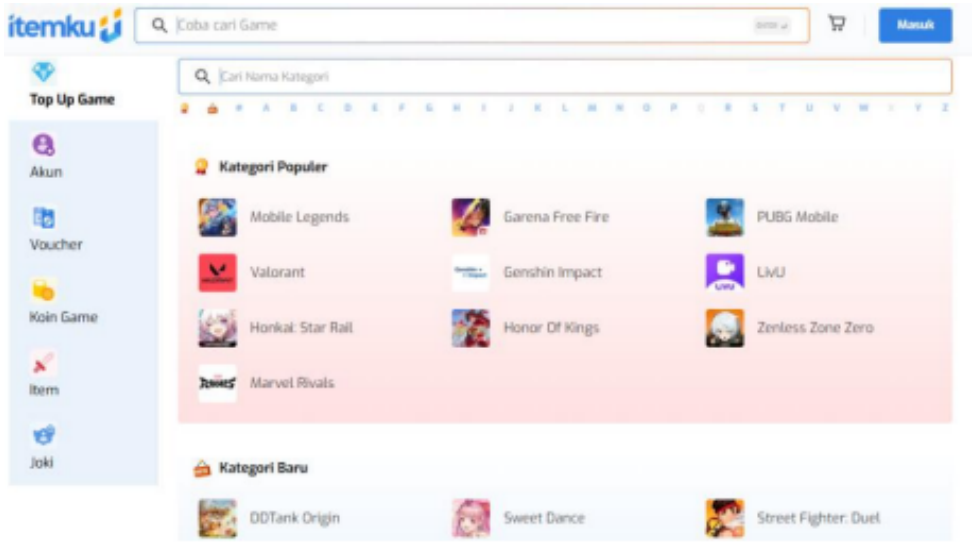

Figure 3: Services Page

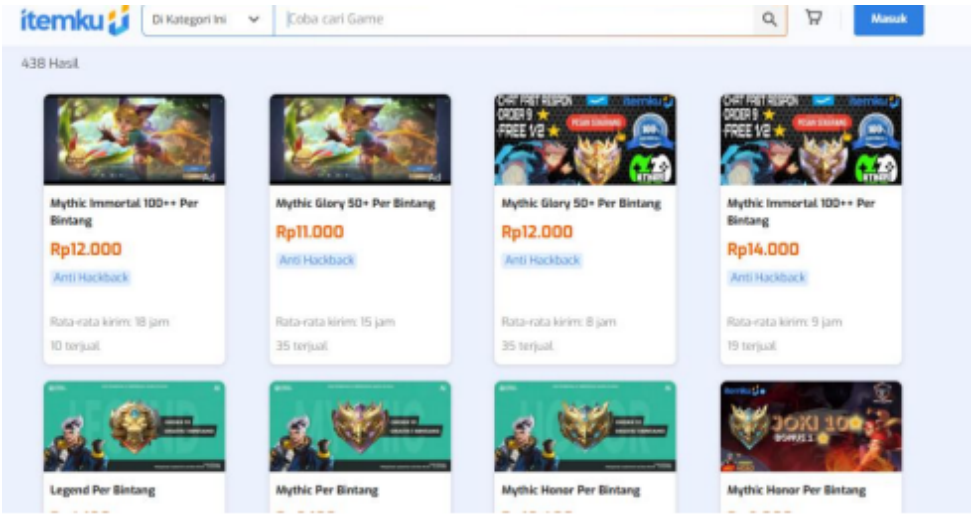

Figure 4: Package Selection Page

Figure 5: Testimonials Page

B. Evaluation Results

Usability testing was conducted using the SUS questionnaire distributed to 57 respondents (students and gamers). The calculation results are summarized in Table IV.

Table 4: SUS Score Calculation Results from 57 Respondents

Parameter	Value
Number of Respondents	57
Total Raw Score (Sum of converted scores)	4501
Mean Raw Score	78.96
Final SUS Score (rounded)	78.9
Minimum Score	45
Maximum Score	90

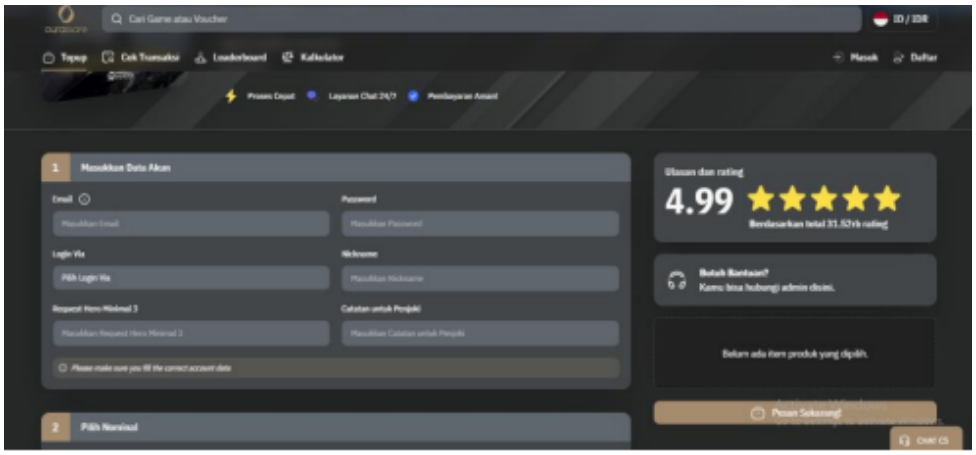

Figure 6: Acceptability Range, Grade Scale, and Adjective Ratings Based on SUS Score (Source: Lind et al., 2024)

The final SUS score of 78.9, as shown in Figure 6, falls within the ”Acceptable” range, with a grade scale of ”C” and an adjective rating of ”Good”. This indicates that the BangSatria Joki website prototype is acceptable and provides a good user experience.

C. Discussion

The application of the Design Thinking method proved effective in producing a user-centered design. The Empathize stage successfully identified key user concerns, particularly regarding account security and transparent pricing. The Define stage translated these findings into clear user personas. The Ideate stage generated wireframes and user flows that address these concerns. The Prototype stage produced a high-fidelity design with intuitive navigation, clear pricing information, direct chat integration, and testimonial features. The Testing stage confirmed the design’s usability with a ”Good” SUS score of 78.9.

Compared to previous studies, this SUS score is higher than Prayogo et al. (2024) who achieved 74.8, but lower than Rachman et al. (2023) who achieved 93. This suggests that while the design is acceptable and good, there is still room for improvement, particularly in simplifying certain interactions based on respondent feedback.

V. CONCLUSION

This research successfully designed the UI/UX for the BangSatria Joki website using the Design Thinking method. The conclusions are as follows:

1. The Design Thinking method was effectively applied through five stages: Empathize (user needs identification through observation and interviews), Define (problem formulation and user persona creation), Ideate (wireframe and user flow design), Prototype (high-fidelity Figma prototype), and Testing (SUS evaluation).

2. The resulting UI/UX design includes intuitive navigation, transparent pricing displays, easy ordering forms, direct admin communication, testimonials, and order tracking features, all designed to address user concerns about security and trust.

3. Usability testing with 57 respondents yielded a SUS score of 78.9, categorized as ”Good” and ”Acceptable”, confirming that the design meets user needs and provides a positive user experience.

Suggestions for future research include: (1) providing clearer explanations to respondents when distributing SUS questionnaires, (2) proceeding to functional system implementation to test the design in real usage contexts, (3) conducting testing with a larger and more diverse respondent sample, and (4) integrating the design into an interactive system to ensure optimal UI/UX in actual use.

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