JOURNAL OF APPLIED INFORMATION SYSTEMS AND INFROMATICS

Lazatto Website UI/UX Optimization: Improve Usability Through User Centered Design

Delely Rahmawati Hidayah

Department of Informatic, Siliwangi University, Tasikmalaya, Indonesia

Corresponding author: delelyrhdy@gmail.com

Abstract*— Improving the UI/UX quality of Lazatto's website is important given the role of digital interfaces in attracting and retaining customers in the modern era. Lazatto, as a fast food brand, faces challenges in interface design, such as unintuitive navigation and lack of satisfying user experience, which could potentially reduce its competitiveness. Therefore, the User Centered Design (UCD) method was chosen to address these issues due to its focus on putting the user's needs and experience as the top priority. The method involves several stages, namely user needs analysis, wireframe and prototype-based solution design, and iterative evaluation through live user testing. The implementation resulted in a new design with five main features. Based on usability testing involving six different scenarios, the highest Usability Score was obtained in scenario 1 with a score of 4.27, signifying user success and a clear interface, while scenario 2 recorded the lowest score (3.89) due to challenges with visual clarity. The average scenario completion time was consistent at 3.85 with a high average visual clarity across all scenarios, indicating that the interface was generally perceived as clear by users. These optimization results confirm the importance of UCD implementation in improving user experience while also providing.

***Keywords*— Lazatto, UI/UX, User Centered Design**

Manuscript received 28 Nov. 2024; revised 29 Nov. 2024; accepted Nov. 2024. Date of publication Nov. 2024.
International Journal of Applied Information systems and Informatics is licensed under a Creative Commons Attribution-Share Alike 4.0 International License.

I. INTRODUCTION

In the modern era, technological applications have become a fundamental need for various walks of life, covering human and computer interaction as a field of study that examines the relationship between humans and computing devices, with a focus on designing, evaluating, and implementing user-friendly interactive interface systems[1],[2]. In application development, User Interface (UI) and User Experience (UX) become two crucial aspects that work synergistically, where UI serves as a bridge of interaction between the application and its users through the integration of various components such as control elements and buttons, while UX plays a role in creating an optimal experience by focusing not only on appearance but also functionality and ease of use, so that these two aspects together produce applications that are not only visually appealing but also satisfying for their users [3].

Lazatto Chicken and Burger, part of PT Seta Kuliner Mandiri operating since 2018, is a leading restaurant concept fast food brand with affordable prices, has developed a website as an ordering platform that faces a number of significant UI/UX design challenges, including visual inconsistencies such as non-uniform icon sizes, hard-to-reach buttons, and inconsistent font usage, as well as user experience issues that violate design principles such as Fitt's Law and Law of Common Region.

Based on these problems, it is proposed to optimize the appearance of the Lazatto website with special application to the UI/UX aspect using the User Centered Design (UCD) method. The UCD method was chosen because this method places the user actively through an iterative cycle of analysis, design, evaluation, and implementation [4]. User Centered Design (UCD) is a design approach that places the user at the center of the development process [5]. The method developed by Donald Norman emphasizes the importance of understanding the needs, preferences, and limitations of users in every stage of design. The UCD method is very suitable for optimizing User Interface (UI) and User Experience (UX) on the Lazatto website because it focuses on user needs.

The purpose of this optimization is to create UI and UX designs that are easy for users to understand and use, and provide new experiences that are in accordance with the principles of User Centered Design (UCD). In addition, this optimization can also provide solutions that can help users avoid problems when using the website, increase user satisfaction, and ultimately increase the use of the Lazatto website.

In research conducted by Muhammad Riza Aimar, Meriska Defriani, and Muhammad Rafi Muttaqin regarding the redesign of the Lazatto Application using the Lean Experience method. The Lean Experience method is a method that brings a real nature of a product to have faster success and success

collaboratively and cross-functionally by minimizing the emphasis on documentation but focusing on increasing the understanding of the product experience being designed [6]. There are four stages in this method, including: declare assumptions, create a minimum viable product, run an experiment, and feedback and research. In the beginning of their research, the three people conducted tests using the System Usability Scale (SUS) method on respondents. The results of the SUS method show that the application gets a grade scale "F" with Poor devices and Acceptable ranges Not Acceptable at a score of 40,667. So that a redesign of the appearance of the Lazatto application was carried out by paying attention to the UI / UX aspects using the Lean UX method. This method is said to have advantages such as cost-effective, time-saving, user-centric, and data-driven. After redesigning the appearance design of the Lazatto mobile application, the questionnaire results in the final evaluation resulted in a score of 75.667 with a rating of "Good" and a grade scale of "C" [7].

II. METHOD

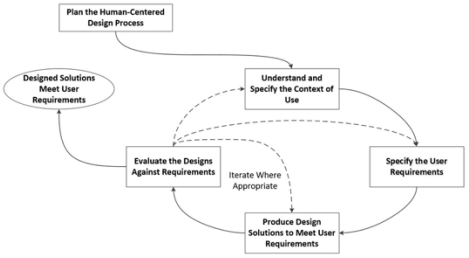

Figure 1. Stages of User Centered Design

The method used in this research is User Centered Design (UCD). UCD is an approach to developing systems interactively and focusing on users [8]. Figure 1 shows the six stages of UCD, namely plan the human-centered design process, understand and specify the context of use, specify the user requirements, produce design solutions to meet user requirements, evaluate the designs against requirements, and designed solutions meet user requirements. The following is an explanation of the six stages of the UCD method:

A. Plan the Human-Centered Design Process

The first step is to plan the design process that will be used with a user-centered approach. This includes understanding steps such as user data collection, tools, needs analysis, and methodologies that will be applied during the design cycle to ensure the resulting solution focuses on user needs.

B. Understand and Specify the Context of Use

This stage is useful for collecting and analyzing information about the user context to be applied to future systems. There are several steps in this stage, namely the identification of the main target users as gen x, y, z, and alpha generations. After that, interviews are conducted and user personas are created, for example a student who wants to see lunch promos. In addition, pain points found included the difficulty of finding certain menu items.

In determining potential users, the author made observations that resulted in several criteria. Table I shows the criteria for prospective users.

Table I. Prospective User Criteria

No.	Criteria	Explanation
1.	*Demography*	• Female or male • Age 18-45 years old • Lower middle to upper middle social status
2.	*Geography*	• Live in Indonesia
3.	*Psychography*	• Likes fast food at affordable prices
4.	*Behavior*	• Want to get fast, accurate information, and attractive rewards

After determining the prospective users, the next step was to conduct interviews with structured interview techniques. In this technique, questions have been prepared by the author for potential users. Table II shows the list of interview questions.

Table II. List of Interview Questions

No.	Question
1.	How often do you buy food from fast food restaurants per month?
2.	Have you ever used websites/online platforms to search for food information?
3.	Have you used Lazatto's website before? If yes, how was your experience?
4.	What difficulties have you experienced when using the Lazatto website?
5.	What do you think about the design of the Lazatto website?
6.	How satisfied are you with the food information service you are currently using? What needs to be improved?

C. Specify the User Requirements

Based on the contextual analysis, the author then outlines in detail what the users need and want from the developed solution. Based on the analysis, the main needs of Lazatto website users include:

a. A quick and easy menu search feature;
b. Attractive product display with detailed information;
c. A customer testimonial feature that shows the real experiences of other users;
d. Clear navigation to facilitate the nearest branch and contact information.

D. Produce Design Solutions to Meet User Requirements

The next step is to create a design solution in the form of a prototype according to the results of user requirements. In the process, the author uses a tool, Figma. The author creates a Lazatto website prototype with several key pages, including:

a. Home page, displaying the latest promotions and CTAs;

b. Menu page, a page with categorized food and beverage images, with filter and search features to make it easier for users to find products;
c. Service and testimonial page, this page contains reviews from customers, as well as the advantages Lazatto offers;
d. Contact and branch page, displaying Lazatto branch locations with map integration and complete contact information.

E. Evaluate the Design Against Requirements

Next, testing is carried out using the Usability Testing method which is a test of a system or application by users to achieve goals that are efficient, effective, and achieve user satisfaction. From this test, the author found that some users felt that the search feature was not fast enough and the price information was not clearly visible on the menu page. The author then iterated to fix this problem by making the price more prominent and adding a food type category feature.

F. Designed Solutions Meet User Requirements

When the design solution has been evaluated and meets the user requirements, the product is considered ready for launch or use. At this point, the design solution should have met the user's expectations and needs thoroughly.

III. RESULT AND DISCUSSION

This chapter is an implementation of the 6 stages described in the previous chapter. The implementation results are as follows:

A. Plan the Human-Centered Design Process

The implementation of this stage results in a deep understanding of user needs through a series of systematic stages, namely user research through interviews. This method ensures the design is more effective and intuitive with user feedback-based iterations, increasing their satisfaction as the resulting solution is relevant and user-friendly. In addition, this approach optimizes development efficiency by focusing on important features identified during the needs analysis, and reduces development costs and time.

B. Understand and Specify the Context of Use

As explained in Chapter II subchapter B, the author conducted interviews with 5 potential users who received different responses. Based on this data, the author found several core problems as shown in table III.All paragraphs must be indented.

Table III. Core Problems of Prospective Users

No.	Core Problems
1	The user experience is confusing, the features displayed are difficult to understand and do not provide an interesting experience.
2	The visual design is considered less modern and less aesthetic, with elements such as “bumpy” colors, non-uniform icons, and inconsistent fonts.
3	Inadequate features such as the absence of attractive promos.
4	Visual and navigational inconsistencies.

After that, the author used the list of core problems to create a user persona of the prospective user in order to obtain a point of view that suits the user's needs. User persona (user personalization) is a representation of all users, both fictional and non-fictional, who can potentially interact with the system designed to meet user needs[9]. Two user personas were created. The contents of the user persona include information about the user's biodata, wishes, complaints, and priorities. Figure 2 shows one of the user personas of potential users of the Lazatto website.

Figure 2. User Persona

Next is determining user needs and pain points. User needs and pain points are obtained from the list of existing core problems and user personas of prospective users. User needs can be interpreted as a collection of wants and needs from prospective users. This collection can be realized in the form of features on the website to be created. Pain points themselves are defined as complaints felt by users in using similar websites/applications[10]. Table IV shows a list of user needs and pain points.

Table IV. User Needs and Pain Points

No.	*User Needs*	*Pain Points*
1	Attractive and intuitive interfac	Confusing navigation
2	Promo features and attractive packages	Unattractive display
3	Easy access to information	Lack of important features
4	Visual consistency	Inconsistency of visual elements

C. Specify the User Requirements

In the third stage, there are two steps taken, namely making user flow, and wireframe. In this stage, the author uses the help of a third-party application, Whimsical. Figure 3 shows the user flow on Lazatto website optimization.

The user flow illustrates the user's journey on the Lazatto website which starts from the main page (homepage) as the center of navigation. Users can choose various activities, such as exploring attractive promos, which include exclusive offers such as secret menus, viewing a neatly presented food or beverage menu, or learning about Lazatto's service excellence to build trust. In addition, there is a customer testimonial page to provide additional confidence, as well as branch location information that makes it easy for users to find the nearest outlet. This flow is designed to ensure a user experience that is structured, intuitive, and suits their needs.

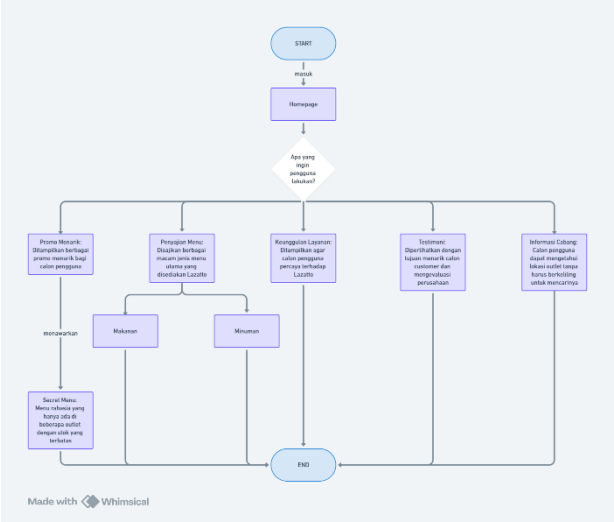

Figure 3. User Flow Illustration

After creating the user flow, the last step was to create wireframes. Figure 4 shows one of the wireframes, the Lazatto website optimization homepage wireframe. This wireframe is an initial design for the homepage of the website with a structured layout and a focus on user experience. The header section includes the logo and main navigation (navbar) for easy exploration. Underneath, there is an image slider to display promotions or important information.

Menu navigation in the form of geometric icons provides quick access to product or service categories. Featured products are displayed with a brief description, price, and rating to help users make informed decisions. Call to Action (CTA) buttons are easily accessible to encourage further interaction. Informational content accompanied by images provides additional explanation about the service or product, while a gallery or testimonial section organized in a 2x2 grid displays user reviews to increase trust. A footer at the bottom completes the design with copyright information or additional elements for closure. The wireframe is designed to be intuitive, engaging and efficient in conveying key information.

Figure 5. Homepage Wireframe

D. Produce Design Solutions to Meet User Requirement

This fourth stage is a prototype design solution. In this stage the author only shows an interface design that includes five main features on the Lazatto website according to user needs. The five main features are exploring interesting promos, viewing food and beverage menus, learning about service excellence, trusted testimonial pages, and accessing Lazatto outlet location information. The following is the interface design for Lazatto website optimization:

Figure 6. Home page display

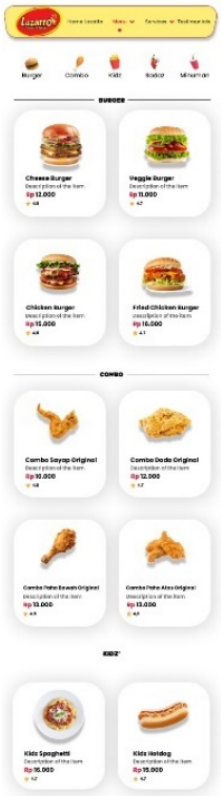

Figure 7. Menu page display

Figure 8. Description display

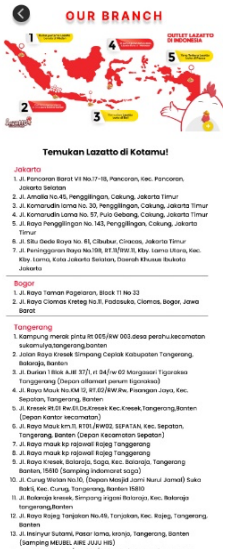

Figure 9. Branch page display

Figure 10. Testimonial page display

In this Lazatto website optimization, users can access various features through the Homepage as the main page shown in Figure 5. When entering the Home page, users are presented with five main menu options, namely attractive promos that display various attractive offers including secret menus with limited stock at certain outlets. In addition, there is a presentation of the menu along with its description which is divided into several food and beverage categories to make it easier for users to see the menus available at Lazatto as presented in figures 6 and 7. In addition, there is branch/outlet information that allows users to find the location of the nearest Lazatto outlet without having to go around, this is shown in figure 8. Not only that, there is a testimonial feature that contains customer reviews and experiences to help users evaluate the service which can be seen in figure 9, the existence of service excellence that displays Lazatto's various advantages is intended to build user trust. All features are built and designed in such a way as to provide a comprehensive experience and make it easier for users to access information about Lazatto, where each flow will end once the user has finished exploring the desired feature.

E. Evaluate the Design Against Requirements

In the fifth stage, the author conducted usability testing. Testing the design of the interface design was carried out by 20 respondents. In this test, the author determines five scenario flows that users must complete. Table V shows the flow of test scenarios.

Table V. Scenario Test

No.	Scenario	Goals
1	Accessing the Homepage	Users can access the Homepage, see the main menu clearly, understand its functions, and enjoy an intuitive interface with a maximum loading time of 3 seconds
2	Viewing attractive promos	Users can view various promos clearly
3	Accessing menu presentation	Users can distinguish food and beverage categories, view the main menu in detail, and read price information and descriptions easily.
4	Viewing service advantages	Users can understand Lazatto's advantages, increase trust through interesting content, and see a clear value proposition.
5	Access testimonials	Users can read customer reviews, evaluate services, and understand ratings and reviews easily.
6	Searching for branch information	Users can find a list of outlets, know the nearest location, and get full details without difficulty.

After making a list of scenario flows, the author distributed prototype links and forms to 20 respondents to test the UI/UX design. Furthermore, the author summarizes the test data that has been done by respondents. Table VI shows a summary of data from the test results.

Table VI. Summary of Data

Scenario	*Succes Average*	*Visual Clarity Average*	*Time Average*	*Usability Score*
1	4.45	4.25	3.85	4.27
2	3.90	3.90	3.85	3.89
3	4.25	4.25	3.85	4.17
4	4.05	4.05	3.85	4.01
5	4.05	4.05	3.85	4.01
6	4.25	4.25	3.85	4.17

Based on the data in Table VI, usability testing results for six different scenarios, where scenario 1 recorded the highest Usability Score (4.27), signifying significant user success and good interface clarity. In contrast, scenario 2 had the lowest Usability Score (3.89), indicating the challenges users faced in completing the task, both in terms of success and visual clarity. While all scenarios showed a consistent Time Average (3.85), indicating the time spent completing the task did not vary significantly, the high Visual Clarity Average score across scenarios reflects that the user interface was generally perceived as clear. These results provide valuable insights for the development team to identify areas for improvement and design more effective solutions to enhance user experience in the future.

F. Designed Solutions Meet User Requirements

Based on the test results shown in Table VII, it can be concluded that the designed solutions for scenarios 1 and 6 succeeded in meeting user needs very well, with a success rate of 85%. Scenarios 3 and 5 also showed good results, with a success rate of 80%. However, scenarios 2 and 4 showed less

satisfactory results, with success rates only reaching 70% and 75% respectively.

Table VII. Results Success Levels and Categories

No.	Scenario	Results Success Levels	Categories
1.	1	85%	*Meets User Requirements*
2.	2	70%	*Partiality Meets User Requirements*
3.	3	80%	*Meets User Requirements*
4.	4	75%	*Partiality Meets User Requirements*
5.	5	80%	*Meets User Requirements*
6.	6	85%	*Meets User Requirements*

IV. Conclusion

The conclusion of this study shows that the application of the User Centered Design (UCD) method in the UI/UX optimization of the Lazatto website has significantly improved the user experience. Based on the usability testing results, the majority of scenarios meet the needs of users with a high success rate. The resulting design solutions such as attractive promo features, intuitive navigation, and clear menu display, were able to meet the needs of users based on the analysis of user personas, user needs, and pain points. Although some scenarios showed a low success rate due to lack of clarity on certain features, it still provided important insights for further iterations and improvements. Overall, this optimization provides a relevant and user-friendly solution, which not only improves efficiency and effectiveness but also user satisfaction in accessing Lazatto's website.

Suggestions for further research include several aspects that can address the shortcomings in this study. First, usability testing can be expanded by involving more respondents from various user segments to obtain more representative data. Second, in-depth evaluation of scenarios with low success rates is needed to identify root causes and provide more effective design solutions. Third, the research could incorporate additional evaluation methods, such as heatmap analysis to understand user behavior more deeply. Finally, design iterations based on user feedback during testing need to be tested again to ensure the implemented solution actually improves the overall user experience.

Acknowledgment

The authors would like to thank all those who have provided support, guidance, and contributions in the completion of this research. Special thanks go to the supervisor, respondents, and colleagues who have provided valuable input. Hopefully the results of this research can be useful and make a positive contribution.

References

[1] A. Muliawati, T. Rahayu, I. Hesti Indriana, D. Veteran National Development University Jakarta, and J. R. Fatmawati Pondok Labu Jakarta Sur-el, "Application Display Design of Village Community Service System with Goal-Directed Design Method," MATRIK Scientific Journal, vol. 23, no. 2, 2021.

[2] D. Rahadian, G. Rahayu, and R. R. Oktavia, "Educational Technology: A Study of Ruangguru Applications Based on the Principles and Paradigms of Human and Computer Interaction," PETIK Journal, vol. 5, no. 1, pp. 2019–2030.

[3] E. W. Sulistyo and S. Sofiana, "Designing User Interface/User Experience Web Dictionary Information Service Design with Lean User Experience (Lean UX) Method at Pamulang University," BULLET: Multidisciplinary Journal, vol. 1, no. 03, 2022.

[4] H. M. Elmatsani, "User Centered Design and Iterative Evaluation in the Development of Engineering DUPAK Applications," InfoTekJar (National Journal of Informatics and Network Technology), vol. 3, no. 2, pp. 96–102, Mar. 2019, doi: 10.30743/infotekjar.v3i2.1014.

[5] R. Gunawan, A. Muzaki Joharudin, and D. Awalludin, "LPPM STMIK ROSMA / Proceedings of the National Seminar: Innovation & Adoption of Analysis Technology and Implementation of User Centered Design (UCD) Method in the Creation of Mobile-Based Teacher Teaching Device Information System".

[6] F. Purwaningtias and M. Ulfa, "UI/UX Website Design Using Lean UX Method," Journal of Information Technology Ampera, vol. 5, no. 1, pp. 2774–2121, 2024, doi: 10.51519/journalita.v5i1.589.

[7] "JURNAL+MERKURIUS+VOL.2+NO.5+SEPTEMBER+2024+(+Muhammad+Riza+Aimar)62-74 (4)".

[8] V. P. Sabandar, K. Sussolaikah, and R. S. Roring, "Application of User-Centered Design Method to Update the Substance of Information and Data on the Website," Journal of Computer System and Informatics (JoSYC), vol. 4, no. 1, pp. 116–127, Dec. 2022, doi: 10.47065/josyc.v4i1.2526.

[9] F. Febrianto and W. Andhika, "The Use of the User Persona Method in an Effort to Increase the Need for Learning Management System Features," Journal of Syntax Admiration, vol. 2, no. 7, pp. 1245–1256, Jul. 2021, doi: 10.46799/jsa.v2i7.274.

[10] B. I. Irawan and G. P. Mahardhika, "Designing User Interface and User Experience of CreativePub Website with User Centered Design Method."