Design Thinking’s Role in Enhancing User Experience on Fashion Campus with Attractive UI/UX Design

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Abstract

Since the Covid pandemic, it has become popular to purchase used clothing. However, there are still obstacles to purchasing used apparel, such as limited selection, quality, and lack of product information. To address this issue, Fashion Campus, a platform for purchasing and selling used clothing with an attractive UI and excellent UX, was developed. UI/UX design is essential for ensuring a positive user experience, and Figma, a web-based vector design application, is being utilized for collaborative efforts. The Design Thinking method is used to increase the efficiency of collaboration and reduce development time. This iterative process permits researchers to gain a deeper understanding of users, to challenge presumptions, and to redefine existing problems in order to identify strategies and solutions. By focusing on the user experience, Design Thinking can lead to the creation of UI/UX Fashion Design by identifying new methods to enhance that experience.

Keywords: User Interface, User Experience, Figma, Design Thinking

1. Introduction

Since the Covid Pandemic, a new trend of purchasing used clothing has emerged (Ristiani et al., 2022). This phenomenon is a result of the growing public awareness of the environmental impact of the large and rapidly changing fashion industry (Sampasa-Kanyinga et al., 2020), and the growing public interest in fashion that is more personal and distinctive. However, there are still many barriers to purchasing used apparel, including limited selection, quality, and lack of product information (Maulidah, 2021). To solve this issue, we require a platform that makes it simpler to purchase used clothing, with an appealing user interface (UI) and positive user experience (UX) (Angelina et al., 2022). Fashion Campus is an online marketplace for purchasing and selling used clothing. UI/UX design is crucial for ensuring that the Fashion Campus app or website provides a positive user experience. Good UI/UX design must take into account multiple factors, including ease of navigation, appealing appearance, and intuitive interaction (Haryuda et al., 2021). One
of the primary objectives of UI/UX design is to ensure that users can readily locate the desired information or product (Kusumadya et al., 2022). In this instance, UI/UX designs for fashion campus applications or websites must take into account aspects such as plain product categorization, efficient search filters, and appealing product display (Lim et al., 2021). In the UI/UX design process, Figma’s tools are very beneficial. Figma is a web-based vector design application that facilitates real-time collaboration among researchers (Rully Pramudita et al., 2021). Figma offers a number of design features and components that can aid in the design process in order to make the collaboration process more efficient and reduce development time (Albert et al., 2021). Therefore, designing a UI/UX for a fashion app or website using tools such as Figma will ensure that the app or website has an appealing appearance, is simple to use, and offers a satisfying shopping experience to its users (Soedewi, 2022).

2. Research Method

Design Thinking is a process that entails multiple iterations to acquire an in-depth understanding of user requirements and to challenge existing assumptions. This methodology enables researchers to more precisely define problems and develop alternative strategies and solutions that may not be immediately apparent. Design Thinking is well-known for its solution-oriented approach that emphasizes the creation of innovative and effective solutions. It is a distinct method of thinking and working that implements a collection of proven, hands-on techniques for enhancing the user experience. In addition, Design Thinking can be utilized to discover new ways to better comprehend and enhance user experiences, which can lead to long-lasting solutions that are advantageous to both users and businesses.

Source: Research Result (2023)

Figure 1. Process Stages of the Design Thinking

2.1. Emphasize

Understanding the user’s behavior, emotions, experiences, and situations is the objective of the Emphasize phase of the Design Thinking method. In this phase,
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Researchers attempt to comprehend the needs and problems of users by putting themselves in their shoes. In order to comprehend users, research objectives are required. By establishing precise research objectives, researchers are able to concentrate on research objectives, produce high-quality findings, and provide substantial benefits. Additionally, research objectives assist researchers in measuring research accomplishment and determining whether research objectives have been met. After completing the research objective, user interviews are the next step. The primary purpose of the user interview is to collect in-depth data or information from respondents or research participants. The technique utilized is a semi-structured technique. The following are interview-stage questions:

Table 1. Interview Questions on the Emphasize Stage

<table>
<thead>
<tr>
<th>No</th>
<th>Interview question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>What do you usually shop for through thrifting, sis, social media, e-commerce or where?</td>
</tr>
<tr>
<td>2.</td>
<td>Is it difficult for you to find the items you want to buy on the platform?</td>
</tr>
<tr>
<td>3.</td>
<td>Usually, what do you consider before buying thrifting items?</td>
</tr>
<tr>
<td>4.</td>
<td>When shopping for thrifting, do you usually choose what items, for example, clothes, shoes, t-shirts?</td>
</tr>
<tr>
<td>5.</td>
<td>(From the previous question) So when choosing these items to buy, do you feel doubts/fear, such as fear that the goods will not meet expectations, the goods will not arrive, in terms of payment, you are afraid of being scammed?</td>
</tr>
<tr>
<td>6.</td>
<td>Do you know an example of a website for buying and selling used clothes?</td>
</tr>
<tr>
<td>7.</td>
<td>(if for example the answer is different from answer no 1) why didn't you choose this platform to buy used clothes?</td>
</tr>
<tr>
<td>8.</td>
<td>So sis, we have an idea to create an e-commerce specifically for buying and selling used goods, what do you think?</td>
</tr>
<tr>
<td>9.</td>
<td>Do you have any hopes when shopping in the thrifting world what you want to be like, so that you are comfortable while shopping?</td>
</tr>
<tr>
<td>10.</td>
<td>What features are important sis when shopping for used goods?</td>
</tr>
</tbody>
</table>

Source: Research Result (2023)

After conducting an interview to gain insight, create user personas. User persona is a fictional representation of the characteristics, objectives, and needs of
users that researchers use to better comprehend and design user experiences. The
user persona is based on preceding interview data and information.

2.2. Define

After gaining insight from the empathize stage, such as understanding the
user's needs and the actual obstacles they face, the define stage is the next phase. At
this juncture, the researcher prioritizes the problems that will be addressed with
solutions. The researcher will establish the research's objectives and formulate the
issues to be resolved. In this step, the researcher poses numerous HMW (How Might
We) questions to generate potential solutions. HMW (How Might We) is a question
used in the Design Thinking method to identify user challenges or problems in a
specific context. HMW is utilized to transform complex issues into more targeted
inquiries.

2.3. Ideate

In the third stage of design thinking, which is ideate, researchers can generate
solution ideas through a group ideation session. At this stage, researchers will consider
various relevant factors, such as user requirements, resource availability, and existing
limitations, in order to identify alternative solutions that can assist users in overcoming
the problems they face. In addition, the author must ensure that the final solution
provides the greatest possible benefits to users while minimizing any potential negative
effects. Therefore, researchers must consider a variety of variables that affect the
success and outcomes of their work. In this instance, authors must generate innovative
and creative solutions in order to provide added value to consumers while also
differentiating the offered products or services.

2.4. Prototype

The Prototype Stage is a crucial phase in the product development process.
During this phase, the research team will implement the discovered ideas or solutions
by creating prototypes, minimal frameworks, and more detailed designs. In this phase,
researchers will concentrate on developing solutions that can surmount the product's
current limitations and address the identified issues. Consequently, at the conclusion of
this phase, the research team will have a greater understanding of how actual users
will conduct, think, and feel when interacting with the final product. In addition, the
researcher will construct a prototype that can be used for user testing and feedback
collection at this stage. Using these prototypes permits the design team to refine
products and customize previously created solutions. Consequently, this phase is
crucial to ensuring that the product can satisfy the requirements of users and achieve the desired outcomes.

2.5. Testing

Testing is a crucial step in the development of solutions. The objective is to validate the solution's correctness and ability to solve user problems, and to determine if additional development is required. In addition, this phase can provide a clearer image of the issues and limitations associated with the product being developed, as well as the behavior that end users may exhibit when interacting with the product. At this juncture, unmoderated usability testing is utilized. Testing that does not require direct supervision is unmoderated remote usability testing. Testing parties can conduct trials remotely using their respective devices to access the being tested website or application.

a). Identify the prototype component to be evaluated. Consider the prototype's content, features, design, and primary constraints as it is being developed.

b). Create an evaluation assignment. You should design tasks based on what you want to test, such as whether users can comprehend button functions and features, but the task does not perform well, indicating that usability testing is required.

c). Determine the accomplishment criteria. To determine accomplishment, validation is necessary. Researchers used the SEQ (Single Ease Question), which is one of the Post Task Questionnaires, to evaluate the level of usability of a product feature based on user experience by asking only one question per task. This is the SEQ measurement scale:

Source: Research Result (2023)

Figure 2. SEQ measurement scale

3. Results and Analysis

This section describes, step-by-step, how Design Thinking was applied to the UI/UX design of the Fashion Campus website. The following is the conclusion:

3.1. Define
There are three implementation elements at this stage: research objectives, semi-structured interviews, and the creation of user personas. According to the objective research table, the researcher selected 5 participants.

Table 2. Research Objective on Fashion Campus

<table>
<thead>
<tr>
<th>Plan</th>
<th>Research Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant Criteria</td>
<td>People who like buying and selling used clothes</td>
</tr>
<tr>
<td></td>
<td>Age 20-30 years</td>
</tr>
<tr>
<td>Observable and observable coverage of respondents</td>
<td>Understanding from a used clothing buyer's perspective</td>
</tr>
<tr>
<td></td>
<td>Understand the behavior, needs and complaints of used clothing buyers</td>
</tr>
<tr>
<td></td>
<td>Understand the method of transaction activity that is most convenient for buyers</td>
</tr>
</tbody>
</table>

Source: Research Result (2023)

At this stage, there are two essential aspects of the research objective that can be observed and observed from the respondents: the participant criteria and the scope. These two aspects are crucial because, without a research objective, it will be difficult for the researcher to comprehend the users who will be interviewed, followed by the interview phase. The researcher selected five respondents based on the criteria outlined in the research objective. After gaining insight from the interview, the next stage is to develop a user persona the research objective is an example of a user persona. After gaining insight from the interview, the next step is to create the user persona, the user persona is described below.

Source: Research Result (2023)

Figure 3. User Persona on fashion campus
3.2. Define

The next stage, after gaining insight from the persona, is to construct an HMW (How Might We) to discover a solution to an existing user problem (Paint Point). The following questions are used to answer user problems:

<table>
<thead>
<tr>
<th>No</th>
<th>How Might We</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How to increase consumer confidence?</td>
</tr>
<tr>
<td>2</td>
<td>How to minimize the risk of fraud?</td>
</tr>
<tr>
<td>3</td>
<td>How to make users feel that the goods sent are safe?</td>
</tr>
<tr>
<td>4</td>
<td>How do you make non-cash transactions on the website later?</td>
</tr>
<tr>
<td>5</td>
<td>How do you make items that sell according to the photo?</td>
</tr>
</tbody>
</table>

Source: Research Result (2023)

3.3. Ideate

In this step, the researcher creates a priority matrix to address extant problems, develops a solution concept based on the HMW process, and then prioritizes the proposed solutions.

Source: Research Result (2023)

3.4. Prototype

At this stage, the researcher will implement the acquired ideas and solutions and create a user interface prototype for a fashion campus website. Before designing
the user interface, researchers will develop userflow. Userflow is a user flow that consists of a succession of steps that users of a website or application must complete in order to complete the intended task. When designing userflows, researchers must consider factors such as user objectives, user preferences, and usage context. In addition, researchers must consider potential circumstances that may occur when users interact with websites or applications, anticipate potential issues, and provide suitable solutions. Once the userflow has been established,

![User Flow Diagram](image.png)

Source: Research Result (2023)

Figure 5. User Flow Log in/Sign Up on the fashion campus

The first user flow is the user flow log in/sign up. From the picture above it can be explained that the user flow steps are as follows: a) The user accesses the login page. b) There are "Sign Up" and "Log In" icons visible to the user. If the user does not have an account, he or she will click "Sign Up" to create one. c) On the registration page, users are required to provide personal information including entire name, email address, and password. d) After entering legitimate information into the form, the user clicks "Sign Up" to continue. e) After registering, the user is redirected back to the application or website and informed that the registration was successful. f) The user navigates back to the authentication page. g) Users are prompted to input their previously registered email address and password on the login page. h) After entering their credentials accurately, users select the "Log In" button. i) If the registration information is legitimate, the system redirects the user to the homepage of their account. j) The user has successfully logged in and can now access the account-related features or content.
The second is user flow carrying out the following transactions is an explanation of user flow carrying out transactions as follows: a) Users access the website’s homepage. b) The user selects a product from a selection of available products. c) The user views a product page that includes images, a description, price, available sizes, and user reviews. d) Users make purchases or add items to the shopping cart. e) The user is notified that the item has been added to the shopping cart and given the option to continue browsing or proceed directly to the shopping cart. f) If the user decides to continue purchasing, they are redirected to the product or product category page to locate additional items of interest. g) If the user selects to proceed to the purchasing cart, they are redirected to a page containing a list of the items they have added. h) On the purchasing cart page, users can alter the product quantity, delete specific items, or initiate the payment procedure. i) The payment page is then redirected to the user. h) On the payment page, users are required to input shipping information including shipping address, shipping speed, and payment method. k) The system verifies the payment details and provides confirmation that the order was successfully made. l) Users are sent products. m) As substantiation of purchase, the user receives a purchase summary and order number. n) The user has received the items, if they are damaged or do not match the product description, the user may return them; if the goods are suitable, the user will conclude the transaction.
After the User Flow is created, the next step is the Prototype UI design. The following is the display of the UI prototype for the Fashion Campus design:

The registration page is a page that validates and authenticates users seeking access to a website or application. On the registration page, there are several primary elements that facilitate easy and secure user access to websites and applications. First, there is a field for entering your email address or username and password. This helps distinguish users attempting to access a website or application. Typically, this section is accompanied by a "Forgot Password" link that allows the user to reset their password if they have forgotten it. In addition, there is a "Sign In" or "Login" icon that sends authentication information to the user and verifies their access to websites or applications. If the user does not already have an account, the "Sign Up" or "Register" icon will lead them to the registration page. There are also UI elements such as logos, color schemes, and fonts that must be consistent with the overall identity and aesthetics of the website or application in order to provide a consistent and pleasurable user experience.
The home page of Fashion Campus is the primary page of the website or application, displaying essential information about the site. On the homepage, users will typically find navigation menus, product categories, the newest products, the best-selling products, promotions or discounts, and search capabilities. Typically, the navigation menu is located at the top of the page and contains links to key pages such as product categories, user accounts, and support pages. To the left or right of the navigation menu are product categories that make it simpler for users to locate the desired product.

Product pages on Fashion Campus allow users to view product information, images, and prices. On this page, on the product page, there is a distinct product photo and product title, which provide an initial description of the products offered, as well as a product description that provides additional information about the product, including its materials, dimensions, and other features. On product pages, users can also find price, size, and condition information. In addition, users can view evaluations written by consumers who have previously purchased products from the store, allowing them to make an informed decision prior to making a purchase. There is a “Add to Cart” button on the product page that enables users to add items to their purchasing cart.

This page provides the user's personal information and transaction history, in addition to various features and functions pertaining to the. On their profile page, Users can review and modify their name, address, telephone number, and email address, among other personal data. This facilitates the updating and management of personal...
information by users. In addition, the transaction history of the user is displayed on the profile page. Users can view transaction details, such as purchase list, transaction date, amount paid, and delivery status, for past transactions. It allows users to monitor their orders, view their purchase history, and access their invoices and receipts. Additionally, the profile page permits users to rate and review products or sellers. Users are able to observe their own reviews as well as reviews they have left for other products or sellers. This feature enables users to share their experiences with particular products, thereby assisting other users in making purchasing decisions. On the profile tab, users can also configure their account security settings, such as altering passwords, adding payment methods, and setting addresses. This ensures the security of user accounts and gives them complete control over their personal data.

Source: Research Result (2023)

Figure 10. Check Out the Campus Fashion Page and Cart Page Fashion Campus

Order details, shipping information, and payment methods are included on the check out page to ensure that users can affirm and complete their orders efficiently.

The cart page includes a product summary, product details, and total price to assist users in managing and confirming their orders prior to submitting payment information. Cart page is crucial to the purchasing process on the Fashion Campus platform because it allows users to organize and review their purchases before proceeding to the payment stage. With an effective cart page, users can readily review and modify their orders prior to completing their purchases. This enhances the user experience and guarantees order compatibility prior to payment.
The seller profile is vital to the Fashion Campus platform, as it is where retailers promote and sell their products and services to users and potential consumers. With a good vendor page, sellers can expand their business's reach, boost consumer confidence, and cultivate strong customer relationships.

The Message page on Fashion Campus enables users to communicate, pose inquiries, provide feedback, and exchange product and transaction-related information. This page is intended to facilitate communication between Fashion Campus users and sellers or other users. The UI/UX design of Message pages prioritizes readability, usability, and navigation. This page is readily accessible via the navigation menu or special icons placed in convenient locations. The Message page's UI/UX is intended to be user-friendly, with elements that are simple and straightforward. This is intended to enhance the user experience, facilitate communication, and guarantee user convenience when interacting via the Message Fashion Campus page.

3.5. Testing
In the early phases of testing, the researcher conducted usability testing on the respondents; two scenarios were tested based on the user flow created after the usability testing was conducted; the next stage was evaluating the design created; and the final stage was evaluating the design created.

Table 4. SEQ Questions

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>How the Overall Login Display?</td>
</tr>
</tbody>
</table>
2. How is the overall appearance of the product?

Source: Research Result (2023)

Table 5. SEQ Score

<table>
<thead>
<tr>
<th>Scenario</th>
<th>UT Respondents 1</th>
<th>UT Respondents 2</th>
<th>UT Respondents 3</th>
<th>UT Respondents 4</th>
<th>UT Respondents 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>2.</td>
<td>6</td>
<td>7</td>
<td>6</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Source: Research Result (2023)

Based on the provided data, the Single Ease Question (SEQ) score indicates that the created design is effective and user-friendly, allowing website development to proceed.

4. Conclusion

This research was conducted to design the user interface and user experience of the Fashion Campus website using the Design Thinking methodology. Design Thinking was selected because it involves both the intended target market and the consumers of the Fashion Campus website. Design Thinking begins with the Empathize stage, in which users or potential website users are understood through empathy in order to conduct research and observations. The Define Stage is then used to identify user requirements that have been validated by users. In addition, the Ideation stage is used to generate new solutions to identified problems. The Prototype stage is used to transform ideas into tangible products and permits direct testing by researchers in the form of the Fashion Campus website's initial User Interface design. The final stage is Testing, where the display design or prototype is tested directly with prospective users who have been determined in accordance with the initial criteria, testing using the Usability Testing method and then assigning a SEQ score to the scenario in the previous usability testing. In creating the Fashion Campus website's user interface and user experience, which was created by researchers using figma tools, the Design Thinking methodology was applied to the UI and UX design. The Usability Testing method is used when the display design or prototype is tested directly with prospective users who have been determined according to the criteria from the outset. The SEQ score is then used to assign a value to the scenario in the previous usability testing. In creating the Fashion Campus website's user interface and user experience, which was
created by researchers using figma tools, the Design Thinking methodology was applied to the UI and UX design. The Usability Testing method is used when the display design or prototype is tested directly with prospective users who have been determined according to the criteria from the outset. The SEQ score is then used to assign a value to the scenario in the previous usability testing, the Design Thinking methodology was applied to the UI and UX design successfully created and able to proceed to implementation.

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Author Contributions

Rasmila and Hafizin proposed the topic; Hafizin collecting the data, and conceived models and designed the experiments; Rasmila conceived the optimisation algorithms; Rasmila and Hafizin analysed the result.

Conflicts of Interest

The author declares no conflict of interest.

References


