

Designing UI/UX Thrift shop Website Using User Centered Design (UCD) Method (Case Study: Backfold Market)

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ABSTRACT

Backfold is a second-hand clothing business in Manokwari city that conventional operates with sales requiring customers to visit the store to make purchases. Therefore, a user interface and user experience website were created to facilitate online purchasing without the need to visit the store. The design of the user interface and user experience utilizes the user-centered design (UCD) method with the Figma design application. This method was chosen to design user interface and user experience that involve users based on their experiences. The results of testing using the Maze.design application show that the design of the user interface and user experience is user-friendly with an average usability score of 97.

ABSTRAK

Backfold merupakan usaha penjualan pakaian bekas di kota manokwari yang penjualannya menggunakan cara konvensional, dimana pelanggan harus datang ke toko untuk membeli produk. Oleh karena itu, dibuatlah tampilan user interface dan user experience website agar memudahkan pelanggan membeli produk secara online tanpa harus mengunjungi toko. Perancangan tampilan user interface dan user experience menggunakan metode user centered design (UCD) dengan aplikasi desain Figma. Tujuan penggunaan metode ini karena merancang tampilan user interface dan user experience yang melibatkan pengguna berdasarkan pengalaman pengguna. Hasil pengujian menggunakan aplikasi Maze.design, desain tampilan user interface dan user experience mudah digunakan dengan skor rata-rata average usability 97.

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INTRODUCTION

Lately, the phenomenon of Thrift fashion has become a trend among young people (Rahman et al., 2023). Sadikin Gani states that purchasing second-hand clothes is currently an alternative for those who want to appear fashionable or simply follow the Outfit Out the Day (OOTD) trend without having to spend a lot of money (Cholby, 2021). This is also supported by Bhima Yudhistira from the Institute for Development of Economics and Finance (INDEF), stating that the trend of buying second-hand clothes has been booming in Indonesia since 2019 (Hidayatullah & Barton, 2021). The increasing interest of the public in second-hand clothing opens opportunities for business players. However, the increasingly tight competition prompts business

players to compete to attract customers to buy from their stores (Aliyas et al., 2023). Many sell second-hand clothes, but using conventional methods where customers have to come to the store to purchase products (Andriani, 2018). Meanwhile, in today's era, with the advancement of technology, many business players are shifting to online sales or e-commerce due to the convenience it offers (Harahap, 2018).

One business that employs conventional methods is Backfold. Currently, Backfold sells second-hand clothing products through its physical store, offering items such as shirts, pants, jackets/hoodies, and other fashion accessories. To attract customers, they are designing the user interface and user experience of their website to showcase products, encouraging customers to make online purchases without having to visit the store.

Several studies have applied the user-centered design (UCD) method to design user interfaces and user experiences. One study conducted by (Pallu et al., 2023), titled "Designing User Interface of Mobile E-Commerce Application in Thrift Store Elka Case Study Using User-Centered Design (UCD)" prioritizes every aspect to create a user-friendly interface and experience. In a further study focusing on UI/UX design in the Bank Jago application using the User-Centered Design method (Ravelino & Susetyo, 2023), a functional prototype of insurance functionality in Bank Jago's application was developed, implementing utility principles to emphasize the importance of insurance applications for the public. Another study conducted by (Mubiarto et al., 2023) focused on designing User Interface and User Experience (UI/UX) in the "BCA Mobile" Application Using the User-Centered Design (UCD) Method. Additionally, (Suranto, 2020) conducted a study on Designing User Interface and User Experience Using User-Centered Design in the Auctentik Mobile Application. Lastly, (Hasari et al., 2022), conducted research on the Application of the User-Centered Design Method in Designing the Interface of a Mobile-Based Cinema Ticket Booking and Payment Application.

Based on the existing issues, researchers have designed the user interface and user experience of a thrift shop website to encourage customers to purchase products online (Nabila et al., 2022). The user interface and user experience display the available products. This website also provides information about prices, clothing quality, shipping options, and payment methods. This design aims to facilitate customers in online shopping (Adani, 2020).

To design the user interface, the researchers utilized the User-Centered Design (UCD) method. UCD is employed to design the user interface based on user needs and comfort. The reason for using the UCD approach is that designing the user interface involves users based on their experiences (Purba et al., 2022). Therefore, the UCD method is deemed suitable for this research.

RESEARCH METHODS

The methodology used in this research is the User Centered Design (UCD) method. The research flow can be seen in the figure below:

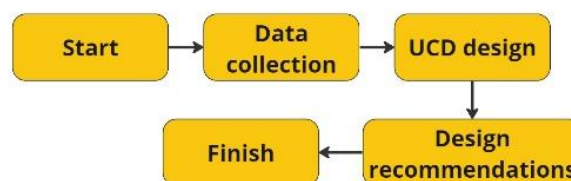


Image 1. Research flow

Data Collection

In this process, data collection is carried out in the form of literature studies and interviews. Literature studies are carried out by reading and understanding reference books, theses, journals, and other media related to user interface design and data processing to support and strengthen theories owned and provide adequate information to complete the research. Interviews were

conducted with the owner of Backfold Market and 2 teenagers 20-25 years old in the Manokwari area who will be potential users of the Backfold Market thrift shop website who are interested in purchasing used goods. Interviews were conducted by interacting directly with the owner of Backfold Market and 3 other potential users to get what information is needed to facilitate the process of delivering information and purchasing used goods, obtaining ideas from the products to be designed.

Web Design with User Centered Design

This method sets the user as the center of the system design User Centered Design method has 4 stages of the process, namely (Adhitya et al., 2021).

1. Understand Context of Use

In the first stage, researchers will identify who will use the system and explain why and under what conditions they will use the product. This stage is critical in ensuring the user is at the center of the design process.

2. Specify user Requirements

The second stage was carried out by identifying user needs to find out user needs after conducting interviews in the first stage

3. Product design solutions

In the third stage, researchers will design the user interface and user experience of the Backfold Market thrift shop website in the form of a prototype based on previously identified user needs.

4. Evaluate against requirements

The last stage of the UCD method is to evaluate user needs. The purpose of this stage is to evaluate the design directly to the user so that it is known to be in accordance with user needs.

UI/UX Recommendations

In this final stage, the ui/ux design of the Backfold Market thrift shop website is produced in the form of a prototype. This design recommendation results from a series of design steps and has been evaluated based on user needs.

Task Flow

This Task Flow design explains the process of users completing tasks that occur on the website.

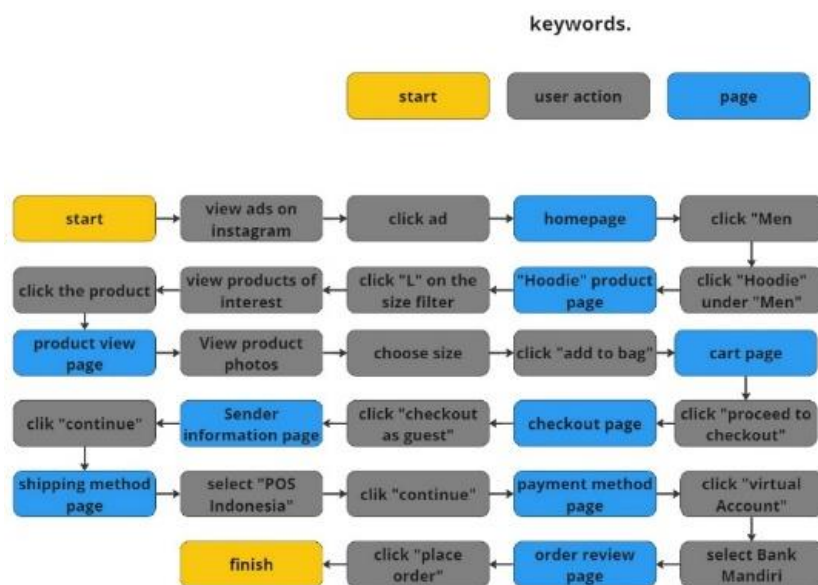


Image 2. Task flow

RESULTS AND DISCUSSION

Data Collection Results

In designing the Backfold Market website design, it involves the owner and 2 customers who will become potential users. Data collection is done by a direct interview process. During the interview process, respondents expressed the goals, expectations and desires of the ui/ux to be created.

Web Design Results with User Centered Design

1. Specify the Context of Use

Based on the results of interviews that have been conducted with 3 people consisting of the owner, and 2 customers, the results are obtained:

Table 1. Interview results

No	Results	Respondents	Respondent Results
1	Purpose of use	1	Easily purchase second-hand goods online
		2	Purchase quality products at more affordable prices
		3	Purchase product with an easy payment process
2	User Desire	1	User interface that is easy to understand and user-friendly, user clear navigation and organized item categories, it features search, filters, popular products and news articles related to the fashion world.
		2	Rating & review feature, cart feature to store items. Avoid choosing bright colors, use monochrome colors. There are various payment methods.
		3	Simple and minimalist design. Provide customer support features

2. Specify User Requirements

User needs have been described in the research will be described in detail in the next stage.

- a. Users can interact without signing up for an account as a guest or create an account to get discounted rates as a new user.
- b. Users can search for items or use filters to find the items they are looking for.
- c. Users get information related to the world of fashion.
- d. Users can rate and review the items they purchase, providing valuable feedback to sellers.
- e. Users can store their favorite items in the cart.
- f. Website uses monochrome colors.
- g. Has an easy payment process.
- h. The website design developed is user-friendly so that users do not feel difficulties when shopping.

3. Design Solutions

a. Design Guideline

Design guidelines are used to guide the design process, their purpose is to ensure consistency of design. Design guidelines include things like color palettes, typography, and other components.

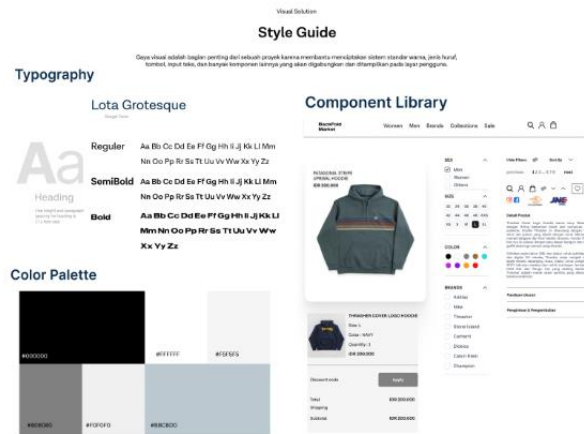


Image 3. Design Guideline

b. High-Fi Home and Product Pages

At this stage, the design is carried out by providing colors, design details according to user needs. The Home page (Image 4a) is a display that provides features and information such as clothing collections, shopping carts, user profiles, and menus for women, men, brands, and discount categories. On the Product page (Image 4b), comprehensive information is presented including product images, descriptions and prices. A filter feature is available for users to customize the search according to their needs.

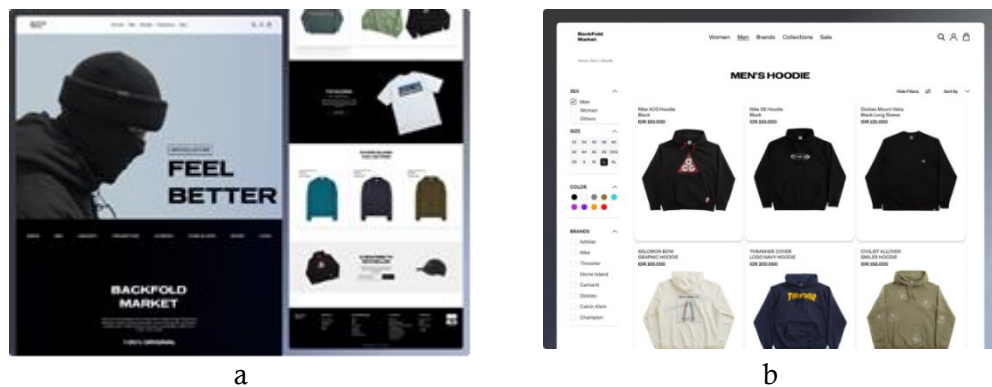


Image 4. (a) Home page, (b) Product page

c. High-Fi Product and Cart View Page

Product View page (Image 5a) users can view product details, size guide. Users can also add products to the cart (Image 5b) there is also a wastebasket icon to delete products.

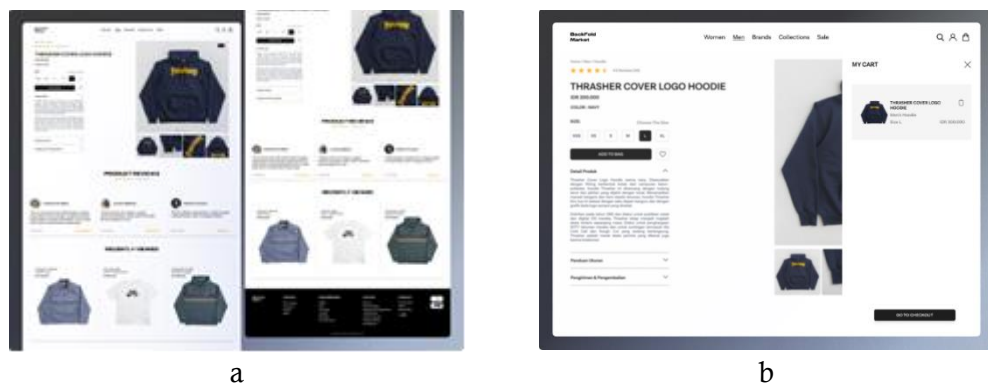


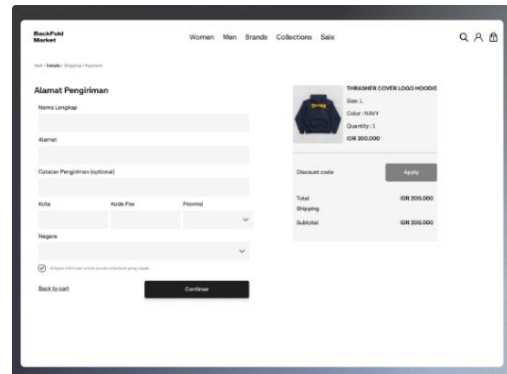
Image 5. (a) Product age, (b) View product page

d. High-Fi Login/Checkout Page and Shipping Address Page

The Login page (Image 6a) displays a signup menu for users who do not have an account, or a login menu for users who already have an account. However, for users who wish to proceed with their purchase without creating an account, they can use the "checkout as guest" option and be directed to the delivery information page (Image 6b) where users are required to fill in their full address.



a

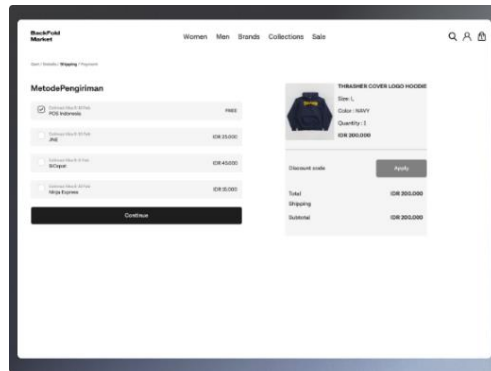


b

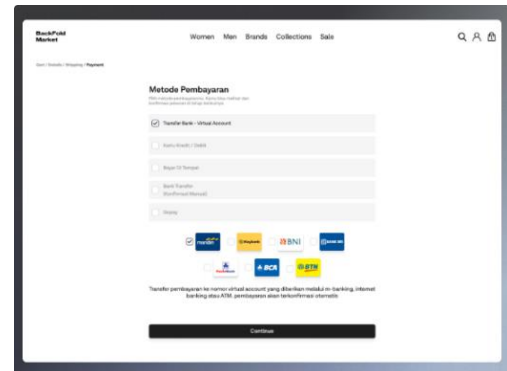
Image 6. (a) Login/Checkout Page, (b) Shipping address page

e. High-Fi Shipping Method and Payment Page

On the shipping method page (Image 7a) the user selects an available expedition to proceed to the payment page (Image 7b), on this page the user selects an available payment method.



a



b

Image 7. (a) Shipping Method Page, (b) Payment Page

f. High- Fi Order Review and Successful Pages

The order review page (Image 8a) displays information for users to review their orders. Once they are satisfied with their order, users can complete the order. After that, the user will be directed to a page that displays (Image 8b) information that their order has been successfully processed.



Image 8. (a) Order review page, (b) Order success page

g. Evaluate Against Requirements

In this last stage, the user interface design is tested or validated to the user. Testing is done with usability testing to measure the ease of use of the Backfold Market thrift shop website user interface design. Researchers used the in-person method with the help of Maze.design tools. In addition, Maze.design also provides usability scores for scenarios carried out by testers. Usability score serves to measure the level of ease of user interface design used by users. Researchers determined five scenario flows that must be completed by the user. Table 1 below is the flow of the scenario.

Table 2. List of flow scenarios

No	Goals	Scenario
1	Users can access the "hoodie" page on the "Men" menu	"You as a user want to see the hoodie collection that has been provided"
2	The user selects a hoodie and adds it to the cart. Then selects the checkout option as a guest	"You as a user select a hoodie with size L and add it to the cart. Then choose checkout as a guest"
3	Users can fill in the address, shipping method, and payment method	"You as a user want to purchase products up to the payment stage"

The researcher conducted testing on 7 different people with in-person testing. The test participants were asked to access the link provided by Maze.design and then complete the mission from the platform. Image 9 below is a screenshot of the testing process using the Maze.design application.

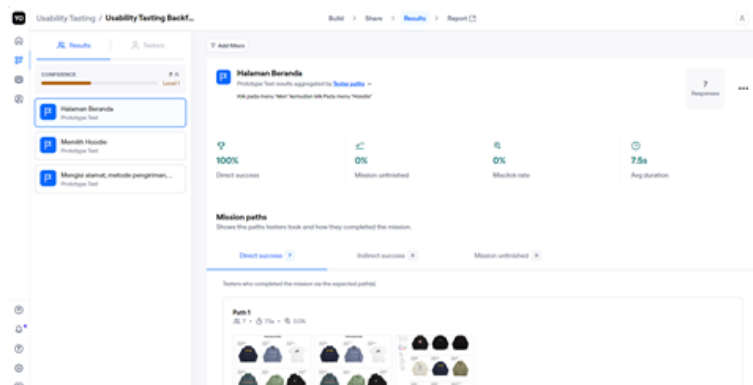


Image 9. Testing process using the Maze.design application

Each participant has a different response when testing, there are some participants who complete without problems, some have to explore the user interface first. Table 3 below is a summary of data from the entire testing process.

Table 3. Summary of test data

Scenario	Direct Success Rate	Mission Unfinished	Average Duration	Misclick Rate	Usability Score
1	100%	0%	7.5s	0%	100
2	100%	0%	28.8s	6.7%	96
3	100%	0%	29.1s	19.7%	95

Based on the data above, the test obtained a fairly good Usability score from the three scenarios created. The average duration of participants in each scenario is fast because some participants are already familiar with the Backfold Market thrift shop website. After reviewing the data from the test table, it was concluded that the design was successful so there was no need to iterate the design again.

CONCLUSION AND SUGGESTIONS

Conclusions

Based on the results of the research and the formulation of the problem, it can be concluded that the user interface design of the Backfold Market thrift shop website can be well received by potential users. This is evidenced by the average usability score of 97 which means that the user interface design of the Backfold Market thrift shop website is easy for users to understand and user.

Suggestions

Based on these conclusions, there are several suggestions for further research that can be done:

- Conduct further research to evaluate the user experience in more depth
- Conduct a comparative analysis by comparing the user interface design with competitors in the same industry.

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