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Re-Design Application Mobile "Wallet" With Method Lean UX

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Abstract

Wallet is a financial product service designed to simplify the payment process. Through Wallet, users can make transactions independently without having to go to a bank branch or ATM. Apart from that, the existence of Wallet helps reduce customer queues at ATMs. To increase the number of transactions via Wallet and make service quality effective and efficient, improvements to Wallet features and design are needed. It is still incomplete and no longer attractive, so Wallet usage has decreased. Therefore, User Interface (UI) and User Experience (UX) design is needed as a basis for building a platform to create more attractive designs and features. The Lean UX method focuses on user satisfaction with the user interface created, so this method was chosen in this research to develop the user interface design. Based on analysis, implementation and evaluation, the final prototype is a combination of prototypes A and B which have been validated in terms of appearance, as well as criticism and suggestions from consumer users and technicians. Prototype A was selected for 5 features and Prototype B was selected for 5 features. On the logo page select design A with a percentage of 72.2%, on the main menu page select design A with a percentage of 80.6%, on the home page select design A with a percentage of 69.4%, on the account information page select design A with a percentage of 75%, and the selected transfer page was design B with a percentage of 55.6%. In addition, this research produces results that have a consistent user interface in terms of colors, fonts, images and layout as well as a user experience that makes it easy for users to understand the information to use the application and get it as needed.

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1. Introduction

At this time, technology is developing more rapidly from year to year so that it can have an influence on people's lifestyles where it is already difficult to be separated from smartphones. Technology has become a necessity in human life, namely the need for information.
The increasing number of applications for mobile devices challenges developers to create applications of superior quality. There are many methods that can be used to measure the quality of an application, one of which is using the usability method.

A *wallet* is a container that is used to store money or valuable cards. Along with the times and lifestyles, *wallets* come with various designs and features [1].

DOKU is an electronic wallet equipped with credit card link features and electronic money or cash wallet. You can use DOKU to shop online or offline at merchants who have joined DOKU [2]

User Experience (UX) is a collection methods applied to the design process for a more interactive experience [3]. Wireframes are simple wireframes that provide a visual image of the layout and provide more detailed information or functionality regarding improvements to the application's system interface recommendation page. Wireframe is the basic framework or blueprint of a single page application that will be built by application developers. While Figma is one of the design tools that is usually used to create the appearance of mobile applications, desktops, websites and others. Both of these tools can be said to be the best choice for developers to design a web interface [4].

Figma is a cloud-based design application and prototyping tool for digital projects. Figma was created to help users collaborate on projects and work in teams at once anywhere [5]. Figma is a vector graphics editor and prototyping tool with web-based and additional offline features enabled by desktop applications for Mac OS and Windows [6].

2. Research Methods

2.1. Object of Research

The object of the research was carried out at Pekanbaru city.

2.2. Research Methods

The research method is carried out using the research method. The method can be seen in the following figure 1:

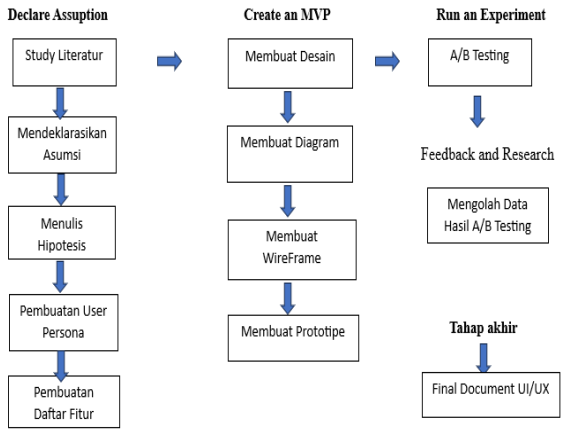

Figure 1. Research Method

The Lean UX method has 4 stages, namely:

1. Declare assumption is to declare as a fact to support why this project is being carried out.

2. Create an MVP is the latest version of a product or design that contains features according to consumer requests, the results of which are obtained from Google Form user research and Google Form usability testing.

3. Run an experiment is the MVP testing stage that has been built to ensure that the prototype that has been created meets the predetermined assumptions.

4. The final stage is the result of the latest design that has been created and the designs are arranged based on which option is most liked by respondents.

2.2.1. Understand
This is the stage of understanding the problem. By understanding what problems the user is facing, the right solution can be found as well.

2.2.2. Research
It is the stage of finding the information needed to solve the problem. The results of this research are the main core of the success of the project whether it meets expectations or fails.

2.2.3. Analyze
This stage will use all the information that has been collected in the previous two stages to analyze and filter the most important elements

2.2.4. Design
This is the stage of designing the application design to be made. Like designing a site map, user flow. Mockups, images, icons and color selection.

2.3. Design Analysis

a. Target User
Service workers who are still around or living in stores and users who need service workers for the needs of each user.

b. Product Limits
Currently the application can only cover the domestic area and can only be enjoyed on Android-based devices online.

c. Platforms
The platform we use is an Android-based operating system and the type of device is Samsung A30S.

3. Results and Discussion

3.1 Create a Design MVP

3.1.1 Logos

The identity in the DOKU logo is something that symbolizes that the application being created is DOKU. The latest logo that has been designed for DOKU can be seen in the image below:

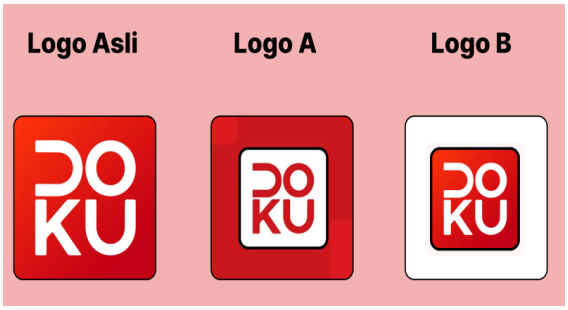

Figure 2. Logos DOKU

3.1.2 Color Scheme

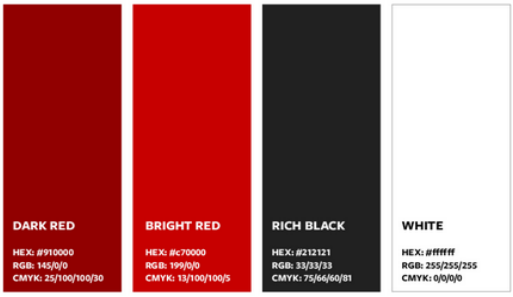

Figure 3. color scheme

3.1.3 Typography

The fonts used for design A are inika font, inter font, and inria serif font. The three font variations above were chosen because the combination looks attractive and can be read well and neatly on all devices. This font is also easy to read in all elements.

Meanwhile, the fonts used for design B are langar font, lemon font, and kelly slab font. These three fonts were chosen because these fonts are of course also very attractive and so that you can differentiate between design A and design B.

3.2 Figma

DOKU It is a mobile-based service finder application which aims to help the public in finding a service provider easily and efficiently. With this application, it can make it easier for us to find a service provider to help us do our daily homework, and with this application it can also make it easier for a service provider to find his customers.

3.2.1 Registration

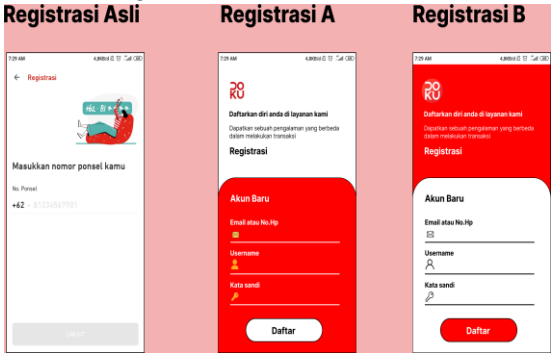

Figure 4. Registration

Registration is the first screen when the application is first run.

3.2.2 Login

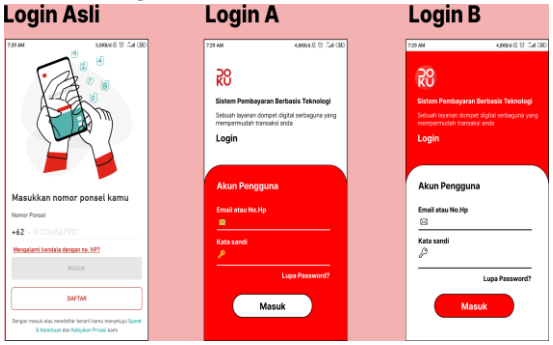

Figure 5. Login

3.2.3 Dashboard

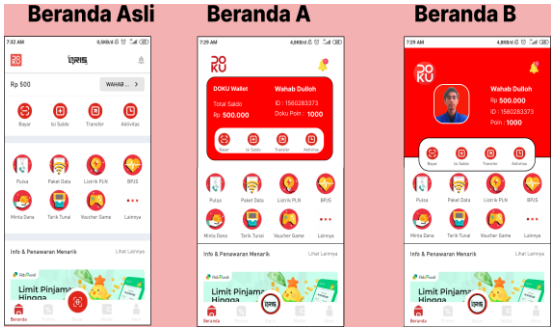

Figure 6. Dashboard

3.2.4 Account

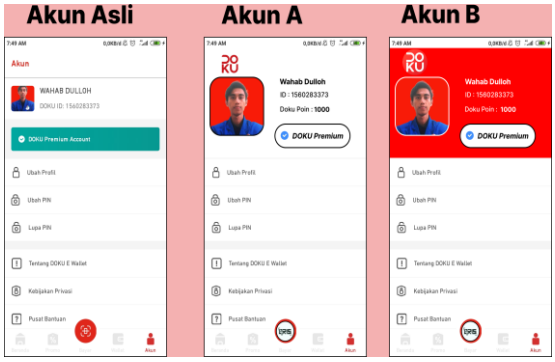

Figure 7. Account

3.2.5 Wallet

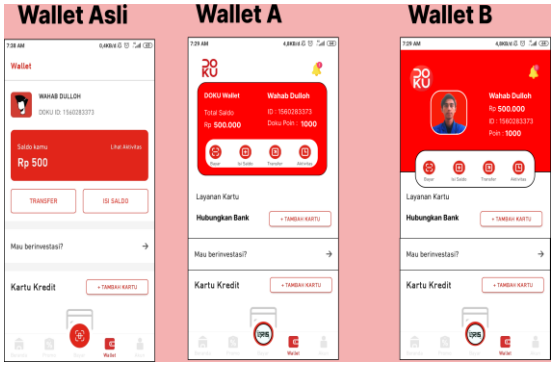

Figure 8. Wallet

3.3 Run An Experime

After creating prototype A and prototype B, the next step is to run experiments to find out which prototype is better and easier for users to understand. The MVP flow is usually used to place prototypes in sequence to see how respondents evaluate them by distributing questionnaires in the form of a Google form, which is called Google Form Usability Testing, which functions to assist in evaluating the prototype user interface.

3.4 Feedback and Research

The feedback and research stage is collect feedback and analysis and validate existing assumptions through MVP prototype testing results to users. This stage proves that the design has been designed in accordance with the user's plans and needs through two stages of testing iterations.

3.4.1 Data processing

Based on the results of the run and experiment, it was found that there were 36 consumer and technician respondents each. The A/B test measurement results are summarized in the table shown in the table below.

Table 1. Test results on A/B design

Page	Design A	Design B	Winner
Registration	80.6%	19.4%	A
Login	72.2%	27.8%	A
Dashboard	69.4%	30.6%	A
Account	75%	25%	A
Wallet	55.6%	44.4%	A

In the google form image above, it can be seen that as many as 36 people participated in the usability testing survey.

We explain it in percentage form as follows:

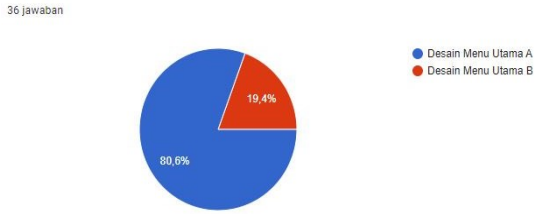

Figure 9. Chart Question Registration

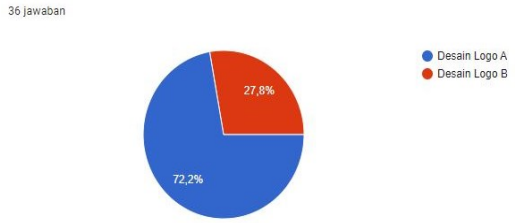

Figure 10. Chart Question Login

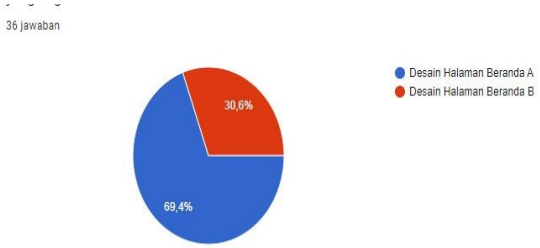

Figure 11. Chart Question Dashboard

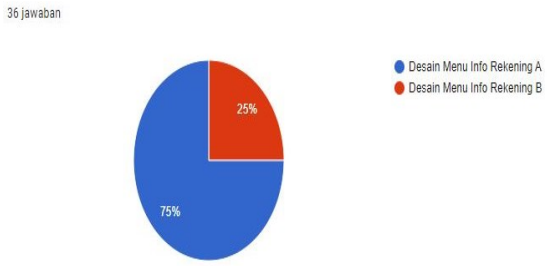

Figure 12. Chart Question Account

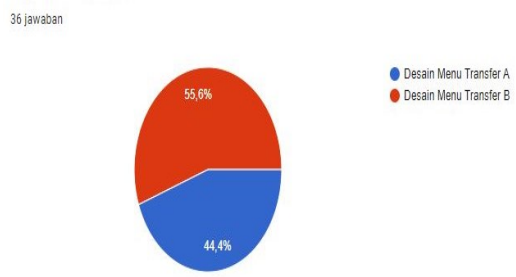

Figure 13. Chart Question Wallet

From all the percentage images above, we took the highest/largest percentage with each page as the winner.

5. Conclusion

The combined display contained in prototype design A and design B, where prototype design A was selected for 5 features, namely the registration, login, main menu, account and wallet pages. In the user research questionnaire there are criticisms and suggestions as material for making the DOKU design even more attractive. In the usability testing questionnaire there is a choice regarding which design is the most attractive according to respondents to get the winner. User experience can be easily understood by users when accessing the application and getting information according to their needs based on the results of the tests that have been carried out.

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