

# Role of User Persona in Creating Redesign Concept for Tokopedia Android Application

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**Abstract**—Marketplace has become a common type of startup in Indonesia. Competition among marketplace startup is inevitable. To win this competition, startup must creating a good user engagement toward the product. User engagement can be created by many factors and one of them is user experience. The base study to design a good experience is creating user persona. Finding the right user persona will lead to finding the right user pain points in the product's interactions. Using the pain points as reference make the redesign easier and structured. The Tokopedia mobile application redesign result created using persona showed that it satisfy the user point of views.

**Keywords**—*user persona; pain point; user journey; wireframe; user experience*)

## I. INTRODUCTION

Online marketplace is a type of e-commerce whereas the products or services coming from multiple supplier and the transaction processes are managed by the marketplace itself. In recent year, online marketplace has become a common type of business startup in Indonesia, which lead to business competition across startup from and outside Indonesia.

Nowadays, Marketplace like Tokopedia produced a variety of new business product, like third party payment service, to increase their competitive strength among other marketplaces. Delivering variety of business products and services can increase user engagement to the marketplace. On the other hand, many business products can make user confused to find their desired products. Therefore, online marketplaces need to build a good user experience in their e-commerce to target and increase user engagement toward the product.

One of the platforms that e-commerce use is Android mobile application. Building application for Android mobile is hard because of diversity of the user compare to iOS. To address this issue, we need to create a user persona as a base issue for further development.

In this paper, writer takes Tokopedia, one of the largest marketplace in Indonesia, as a case study for the redesign concept. To start, we need to create user personas in order to find their pain points in Tokopedia mobile application interaction. Through both interview and literature study, we explore several features, such as login flow, searching product flow, and payment flow, to find the user journey. Writer then create a new design concept for each workflow stated. To

make the design, writer use Photoshop as a wire framing tool. Photoshop gives a lot of freedom to create the sketch yet it must accompanied by the developer constraint to build the application.

In the remainder of the paper, writer describe the theoretical background and related work that support this topic. Later, writer discusses the user persona writer obtain from the research of the product, and explain the user pain points of each main workflow in the application. Writer also show some main screenshot of the redesign concept. Finally, writer close by discussing the result and conclusion of the work.

## II. RELATED WORKS

### A. User Persona

User Persona is a fictional representation of customer type that have individual goals when using a product. User persona was created by doing user research and interview. Besides that, we can find user persona based on data analytics tools, like Google Analytics. User persona consists of user background, demographic information, motivation, and goals. By knowing the right persona, we can develop the right product for the customer.

### B. User Journey

User journey is a series of steps (typically 4-12) which represent a scenario in which a user might interact with the thing you are designing (Mears, 2015). By using user journey, we can explore user interaction with the product. By this, we can find user pain points in the product. Pain points is the state when user frustrate at a point of interaction.

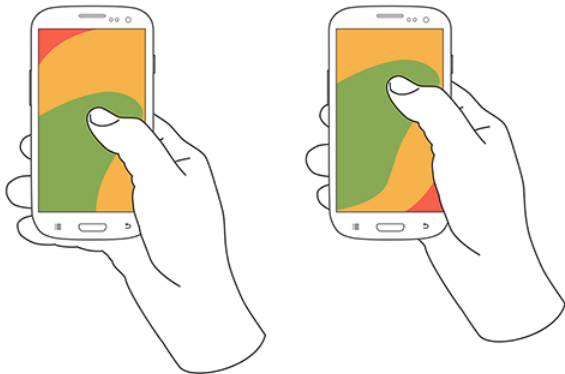
### C. Social Media Sign-In Method

Social login or OAuth method allow a user account information used by another third-party application. This method allowed user to login to an application without sign-up first, which can reduce cognitive load for the user.

### D. Bottom Navigation Bar

Bottom navigation bar is new to Android. Android recently adopt iOS technique that use bottom navigation. Hooper (2013) stated, "49% of people rely on *one-thumb* to accomplish their job in phone." In the figure 1, the diagram

show us the approximate area that we usually interact with. The green indicates easily reachable area while the red one indicates harder reachable area. Furthermore, the phone size produce by many manufacture have increased [2]. In conclusion, bottom navigation bar is more suitable for nowadays condition.



**Figure 1. Reachable area from phone with one thumb**  
(Source: uxatters)

**E. Photography Role in User Experience**

Photography is the most important element in marketplace whether for the banner or for the product itself. Photography is the first line for user to decide whether the site is reliable or not. Andy Budd (2006) suggested, “It is worth nothing that humans are really good at picking up emotional queues and transferring them onto unrelated products and services (known as the halo effect). However, we’re also good at spotting insincerity, so best avoid those cheesy stock photos.” Filtered photos are more likely to be viewed and commented on (Bakhshi, Shamma, Kennedy, & Gilbert. 2015). Animated image, such as GIF, can also give engaging experience to the user [3].

For product, the best simple photo is using a white background. This will expose the product more to the user. Other photography technique for shooting product are compatibility, lifestyle, customer, textural, size and proportion, inspirational, and animated image [6].

**F. Photoshop**

Photoshop is an image editing and graphic design software. Photoshop can manipulate graphic to create what the designer’s desire. Using Photoshop can give more freedom than any wire framing tools. On the other hand, the freedom can make troublesome for the programmers. Designers who do not understand how to code did not include the coding constraint on their design in which can make a chaotic event later.

**III. EXPLORING USER PAIN POINTS**

**A. User Persona**

There are two main user persona in Tokopedia Android Mobile Application, Ana in figure 2, a mother of 3 children and Kevin in figure 3, a student of mechanical engineering.

These personas were created based on interview of six people and some research on the social media.



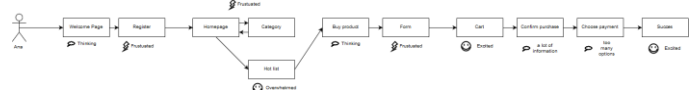
**Figure 2. User Persona 1 - Ana Hattaway**



**Figure 3. User Persona 2 – Kevin Lesmana.**

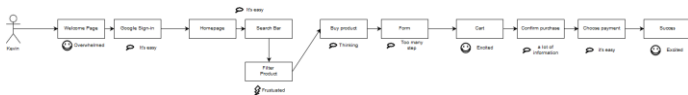
**B. User Journey**

In figure 5, we can find some problem in the interaction of Ana Hattaway. Ana found it is frustrating in the register or sign-up process. Besides that, Ana also confused at searching the desire product. Finally, writer also found out Ana need to think for a long time before Ana can finished the payment flow.



**Figure 4. User journey of Ana Hattaway**

In figure 6, Kevin has a little problem because of his computer skill. Kevin just frustrated in the filtering product flow which take many steps. Kevin also a little bit confused at the form after purchasing a product.



**Figure 5. User journey of Kevin Lesmana**

**C. User Pain Points**

After analyzing the user journey, writers eliminate the interaction flows to just 3 main flows that user frequently do, that is, registration and login flow, buying flow, and payment flow.

Below are the pain point for the registration and login flow:

- User need to type password while sign up using Google+
- User need to scroll to fill the birth date form at registration page
- User type password but system did not show the restriction while typing

Below are the pain point for the buying flow:

- Home page is boring, no any attracting color or hot offer
- It is hard for window shopper user to see the product because the front page is a list of category
- User cannot find hot deal easily
- The shopping cart is hideous
- After go to some category, user found out that the search bar is still search for all category not the category that user working on
- After go to some category, there is a bunch of sub category that take a lot of space compare to the product itself
- Filtering product need so many step to complete
- The price tag is so small
- Popularity summary of the product is distributed all over the page not centralized
- User cannot find out where the last time seller active
- User do not know that the image of the product can be swipe
- After scrolling down, user find out that it is hard to go back to top
- User feel confused about the delivery payment. Each time user buy a product at the same store the delivery payment is still counted

Below are the pain point for the payment flow:

- User feel confused about the structure of the cart
- No information about the delivery address of the product
- Total sum-up of the product is confusing
- Payment using ATM transfer need to much information. User don't memorize their saving account
- Too many payment options

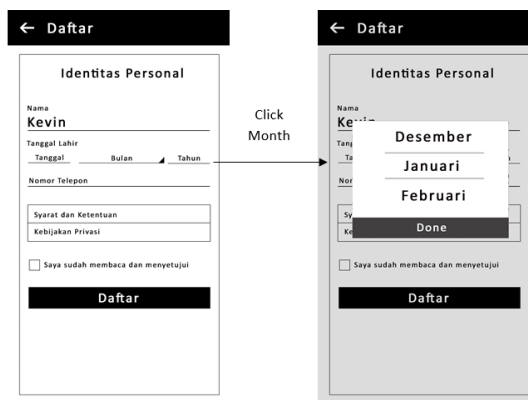
**IV. REDESIGN RESULT**

The user pain points are a helpful method for the designer to create a new interaction. In this paper, Writer only include some main point of redesign concept.

**A. Registration and Login Flow**

The purpose of social media sign-in is to make user easier to register. By using social media sign-in, we need not to type

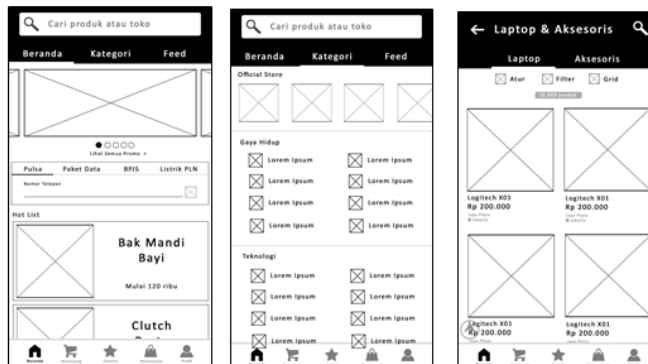
username and password again because it is already handled by the system. So, in this revamp, figure 5, the password field is deleted to make user faster to register.



**Figure 5. Registration flow**

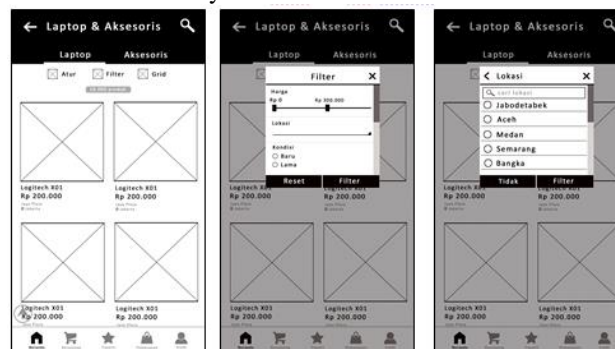
**B. Buying Flow**

The main page has a new design concept as shown in figure 6. The bottom navigation bar is uses to show important feature that was hideous before in the hamburger menu. The home page also has some revamp. The category part was replaced by hot list. This is use due to attract window shoppers. List of category part is move to top navigation bar.



**Figure 6. Search product by category flow**

In figure 7, the filter bar is move from bottom to the top. The position of the filter at the top can give more advantage for the discoverability of the function.



**Figure 7. Filter product flow**

In choose product page as shown in figure 8, there are some major changes. First, the carousel is made more visible to the user. Second, the reputation and activity of the product and shop is located right below the carousel image. The reason is to convince some user who hesitate to buy because of the trust issue. Last, there is new feature to message the seller.

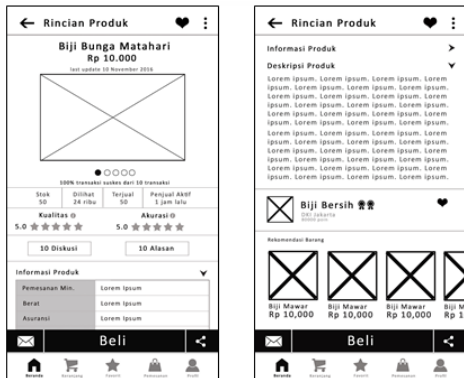


Figure 8. Choose product flow

C. Payment Flow



Figure 9. Payment Flow

In payment flow as shown in figure 9, the process is divided into 2, which is the confirmation process and the payment process. In confirmation process, the product is group by the delivery address because this can make, especially for drop shipper user to navigate easily through the summary. In the payment process, the bank transfer payment need not to input the name and account number because most user never memorize their saving account. Besides that, the transfer bank payment has already used the 3 unique digits to identify the payment.

V. DISCUSSION

After analyzing user persona, writer conduct a direct observation to create user journey. By analyzing user journey and the result of direct observation, we can found out the user pain points in each interaction. The flaw in the interaction become the consideration points for designer. Furthermore, the redesign process becomes easier if the designer already know the pain point of the interaction. Although, not all pain points

can be repaired because there are many user personas and we cannot fulfilled just one of them.

VI. CONCLUSION

User experience plays a great role for achieving user engagement. Creating the right experience for the user will leave a good memory to the product. One of the technique to achieve this is to create user persona. In this paper, writer has conducted interview and online study to find the right user persona at Tokopedia. User persona is a good method as a base study for the redesign concept. Creating the right user persona for a product can give further learning of their interaction to the product. The purpose of creating user persona was to find user pain points in Tokopedia mobile application. Using the pain points, the redesign process was more structured and easier.

Finding the right user persona is the most difficult process. The wrong user persona can created the wrong interaction. In this paper, the conducted method to find user persona has a fraud. Writer do not have the actual data of customer in Tokopedia. Besides that, User personas that was proposed in this paper were biased due to small scope of research.

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