

BuSia: Mobile Apps Design to Promote MSMEs Fashion in Indonesia

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Abstract

MSMEs have a very important role in the country's economy especially in Indonesia. The Covid-19 pandemic has had a negative impact on the economy in Indonesia. This also has an impact on MSMEs in Indonesia. The existence of a pandemic has made the development of MSMEs in Indonesia difficult. Apart from the pandemic, what makes it difficult for MSMEs in Indonesia to develop is the lack of utilization of current technology. This research aims to create graphical user interface of mobile application to help MSMEs in Indonesia, especially in the fashion industry. With this application, users can easily get information about fashion MSMEs originating from Indonesia. In addition, users and MSMEs can carry out buying and selling activities. This research use design thinking methods to describe design process of mobile apps. This research needs to be further development in order to implemented in MSME so that it can have a positive impact on MSME actors in the fashion sector.

Keywords

Design Thinking, Graphical User Interface, MSMEs, Mobile Application Design

1. Introduction

The development of Micro, Small and Medium Enterprises (MSMEs) in Indonesia has received special attention from several groups, including the government. In Law Number 20 of 2008, MSMEs are trades managed by business entities or individuals referring to productive economic businesses (Rahmini 2017). According to the Ministry of Cooperatives and MSMEs of the Republic of Indonesia in 2019, the number of Micro, Small and Medium Enterprises (MSMEs) in

Indonesia reached 65.5 million. This number increased by 1.98% compared to 2018 which was 64.2 million units (Sofyan 2017). What's more, there are now many MSMEs in Indonesia that focus on the fashion sector. However, many Micro, Small and Medium Enterprises (MSMEs) are still underdeveloped. One of the reasons for the difficulty of developing is the Covid-19 pandemic.

The COVID-19 pandemic has had a significant impact on the global economy, including Indonesia . This pandemic may bring the Indonesian economy into an economic crisis. The MSME economy itself contributes about 60% to Indonesia's Gross Domestic Product (GDP) (Marlinah 2020). Covid caused the Indonesian economy to experience a slump in the second quarter of 2020, causing the Gross Domestic Product (GDP) to contract and its value to Rp2,590 trillion. While before the pandemic, Indonesia's GDP in the second quarter of 2019 was Rp2.735 trillion. Another thing about this pandemic is that it encourages consumption patterns of goods and services from offline to online, with an increase in the impact of internet traffic ranging from 15-20% (Thaha 2020). With the proliferation of MSMEs in Indonesia, it can help provide employment opportunities for workers. This can reduce the existing unemployment rate and can also reduce poverty in Indonesia. Moreover, MSMEs, especially in the Indonesian fashion sector, have bright market potential and can be used to gain foreign exchange (Srijani 2020). MSME entrepreneurs take advantage of the latest technology that is always evolving (Purbohastuti 2019).

Because of the potential in the field of mobile applications. This study aims to get the concept of buying and selling clothes and also one of the strategies to advance and increase the income of fashion MSMEs in Indonesia. During the search, there was still little research discussing MSMEs in the fashion sector. The novelty of this research is in the form of visual design for mobile apps as an effort to assist local MSME entrepreneurs to marketing their products. By making a mobile app called "BuSia" which is used for buying and selling clothes and also providing information about local fashion products that can be used by the wider community. The final result of this research is a prototype of the "BuSia" mobile apps design. Based on the previous explanation, this research needs to be done because current technological developments are getting faster and this causes changes in the economic field. With this research, it is hoped that fashion MSME entrepreneurs in Indonesia can take advantage of existing technology to help sell their products.

1.1 Objectives

This research aims to create visual concept of mobile application to promote MSMEs fashion product in Indonesia. Output of this research is to making prototype graphical user interface of mobile applications including digital branding / logo design, color selection, layout, etc.

2. Literature Review

Based on previous research or journals, researchers will describe the state of the art. The state of the art is before research that becomes supporting and important material in research and development of MSMEs applications conducted by researchers. State of the art presented by researchers will load research in the previous 2 journals in tabular form. It contains 2 related journals research developed by researchers, which talks about the topic of MSMEs and also contains problems development of MSMEs in certain forms of output. The state of the art of this research is as follows (Table 1)

Table 1. State of the Art

No	Title and Year of Research	Name of Researcher	Methodology	Research Difference	Result of Research
1.	MSME Product E-Commerce Development Based on Android in Serang-Banten City (2019)	Arum Wahyuni, Purbohastuti, Didik Aribowo	Research and Development	Previous research discusses the applications that only have features of product appearance, selection, product ordering, and product delivery. Then this application only accommodates all types of MSMEs in Serang-Banten.	From the results of the research, it can be said that e-commerce applications that contain content that can make it easier for consumers to order the desired MSME product in the city of Serang-Banten
2	E-UMKM: MSME Product Marketing Application Android-Based as a Strategy to Improve the Economy	Meri Nur Amelia, Yulianto Eko Prasetyo, Iswara Maharani	Qualitative Descriptive	Previous research discusses this application controlled and supervised by government where the products sold must have a quality assurance certificate issued and authorized by the government.	From the results of the study, it can be said that it is used to market products produced by Indonesian SMEs in Indonesia penetrate the ASEAN free market with an android application base. Which is where the buying and

No	Title and Year of Research	Name of Researcher	Methodology	Research Difference	Result of Research
	Indonesia (2017)			This application also accommodates all MSMEs engaged in various fields	selling process is controlled and supervised by the government

Based on the state of the art, it shows similarities to research conducted by researchers, namely develop applications to help MSMEs in advancing their business. These journals show a relationship with the problem of MSMEs, which is a serious problem and must be addressed immediately, because MSMEs have an important role in the economy in Indonesia.

Research conducted by researchers provides the final solution in the form of e-commerce application design for MSMEs. From several previous studies research limitations are that the features of the application that will be made are only that, such as product appearance, selection, product ordering, and product delivery. Apart from the features, the appearance of the application provided still looks old, which can make users uncomfortable when using it later. Based on previous journals, The first journal focuses on all areas of MSMEs, especially in the city of Serang-Banten only (Purbohastuti 2019). The second journal also focuses on all areas of MSMEs in Indonesia and has the aim of making MSMEs in Indonesia penetrate the ASEAN market (Amelia 2017). Therefore, in this research author has initiative to develop e-commerce applications to help MSMEs, especially in the fashion sector with a more attractive appearance and new features such as viewing products in 3D.

2.1 Road Map

A roadmap is a map that depicts stages or paths carried out by researchers in researching applications to help MSMEs engaged in fashion, especially in Indonesia. Therefore, the researcher uses this roadmap as a reference and their support in conducting this research, namely explained in 4 stages. The roadmap created and used is as follows (Figure 1)

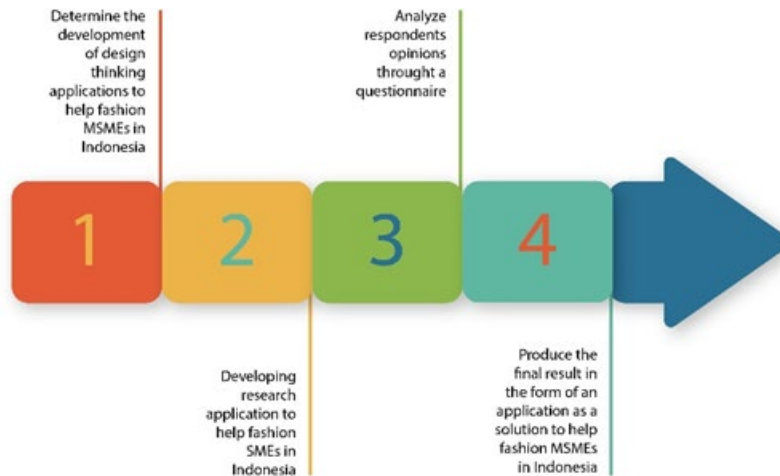


Figure 1. Research Road Map

The first stage of research is to determine the design application development thinking. In the process developing e-commerce applications for fashion MSMEs in Indonesia, researchers will do design thinking the first stage before entering the deeper research of this application. The second stage is developing research about the application by conducting a literature study in several data sources and journals. The next stage is analyzing respondents' answer and opinions. It means the researcher has to create a questionnaire to get the respondent's opinion about behavior when buying clothes and the application. The last stage is producing the final result, which is an e-commerce application specifically for fashion MSMEs in Indonesia. To produce the application itself, researchers need to do prototype and evaluation stage before ready published or produced.

3. Methods

This development application has been done with the design thinking method and online questionnaire. The design thinking method is explained with several steps. (Figure 2)

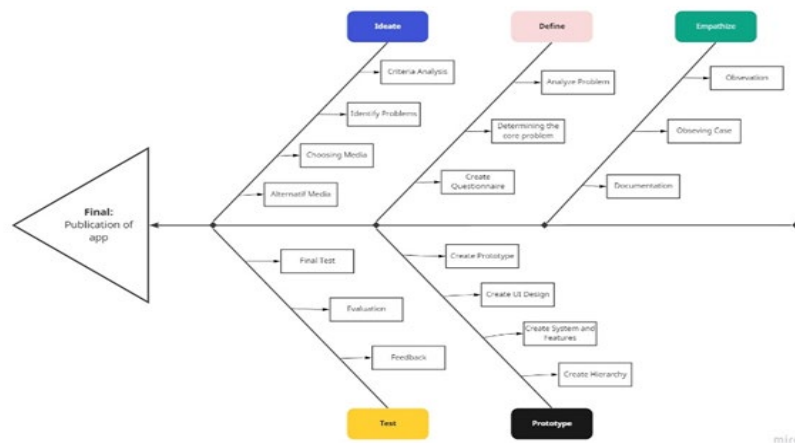


Figure 2. Fishbone Diagram

- **Empathize**
Empathy is the main key of the design process focused on humans. The main purpose of this process is to understanding humans, in context to design purpose. The researcher tries to observe the problems that exist around, which in this research study the researcher is paying attention to the problem of MSMEs in Indonesia.
- **Define**
At the define stage the researcher tries to determine what is the core problem in order to produce a solution as the final output. At this stage, the author collects data related to MSMEs in Indonesia. The researcher also creates a questionnaire that helps research development.
- **Ideate**
At this stage, the researcher begins to solve the core problem and immediately looks for a solution that can solve the problem. The researcher generates a solution to help MSMEs, especially in the field of fashion in Indonesia. The solution is making e-commerce mobile application for purpose of helping develop MSMEs and introducing MSMEs to Indonesian people and the world.
- **Prototype**
At the prototype stage, the researcher has started to enter the trial or experimental stage. Researchers will make designs UI/UX of the application to be made.
- **Test**
After designing UI/UX in prototype stage, researcher will collect feedback from respondents and evaluate the development of application. improve the design before continue to next stage.
- **Implement**
After improve application and accept users suggestions, design prototype of mobile application is able continue to engineering team.

4. Data Collection

After distributing the questionnaires, there were 34 respondents who filled out the questionnaires, the majority of whom filled out the questionnaires were students and workers. Respondents who filled out this questionnaire had an age range of 18-21.

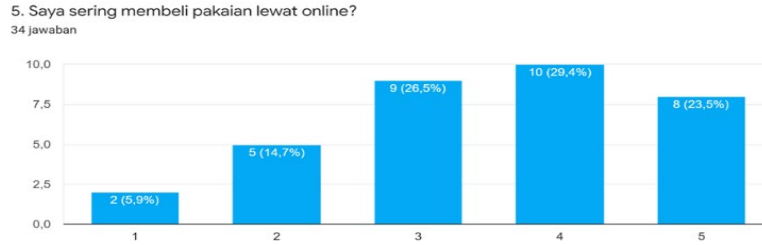


Figure 3. Diagram of Buying Clothes Through Online

Based on Figure 3, because of the large number of internet users in Indonesia, this affects the activity of buying and selling goods, one example is buying and selling clothes. Where in the past they had to come to the store to buy something now they can buy clothes online without having to go to the store. The figure shows that 18 of the total respondents often buy clothes online. Meanwhile, 7 people still buy clothes by visiting the shop.

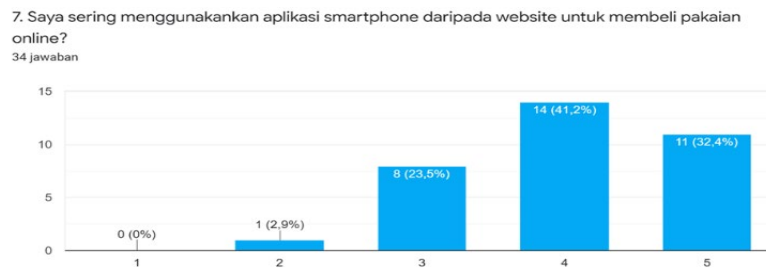


Figure 4. Diagram of Usage Application Instead Website

Based on Figure 4, 25 people who choose to buy clothes online choose to use an application on their smartphone to buy clothes online instead of using a website. From the results of interviews that I have conducted on one of the respondents who chose the smartphone application, the reason they chose the answer was because smartphone applications are more accessible than websites.



Figure 5. Diagram If There is E-commerce Originating from Indonesia

Based on Figure 5, the results show that 32 people out of 34 respondents responded agreeing if there is e-commerce that trades clothes originating from Indonesia. The survey also recorded that 33 of the total respondents agreed if there was a feature of viewing products in 3D. And 27 of the total respondents also agreed if there was a pre-order feature. The last part of this questionnaire is an open-ended question that aims to find out what other features they want if there is an e-commerce application originating from Indonesia. The conclusion from all the answers they have written is that they want the Cash on Delivery (CoD) feature and also the mix and match clothes feature directly through the application.

5. Results and Discussion

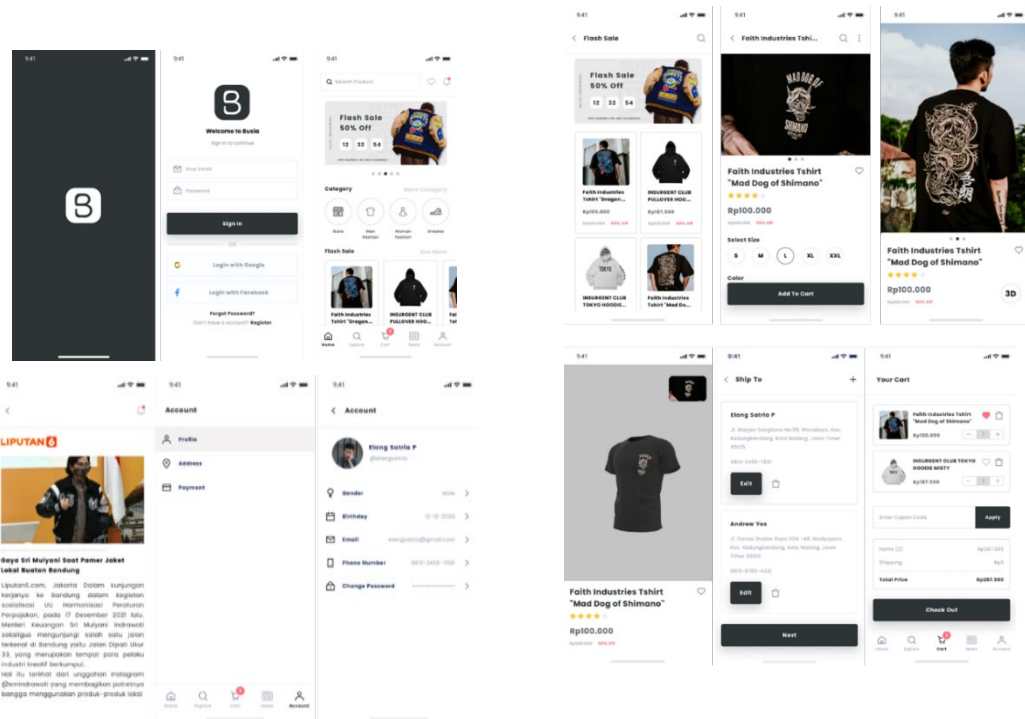
In this chapter, the researcher will present the implementation of the “BuSia” application and present several prototype designs of the application in a form of UI design. Based on the results of research that has been done carried out by researchers, researchers will create fashion e-commerce applications in Indonesia to help MSMEs so that they can develop.

5.1 Visual Concept

User Interface cannot be separated from design components, components that give beauty to the appearance of a mobile application. These design components are formed from several elements such as Layout and Composition, Color, Texture, Typography, and Imagery (Naufal 2018). Each of these elements has a different role in a mobile application, for example, color has a role in the aesthetics and identity of the mobile application. Color is an important aesthetic where through color, we can clearly distinguish the beauty of an object (Yogananti 2015). Color itself has an important role in Graphical User Interface (GUI) design. The choice of color combinations that complement each other will make the mobile application more attractive in the eyes of the user. In addition to making it more attractive, it can also make it easier for users to use mobile applications. The color selection in this mobile application (Figure 5) is dominated by black with the code #2D3436 R:45, G:52, B:54, and contrasts with white. In addition to giving a dark and scary impression, black also gives the impression of elegance, luxury and also symbolizes a suit. Therefore, any element when combined with black will look attractive.

Typography is also an important element in mobile applications. Typography serves two purposes in design. The first is to make the user easier to read, and the second is to help communicate the message of a work (Ou 2019). Fonts are one of the most important elements in mobile application design. For this mobile application, the font used is a sans serif typeface. Sans serif fonts are typefaces that do not have serifs or additional strokes at the end of the letterform. Because of this, sans serif fonts are considered more modern and minimalist and make it easier for users to read (Keung 2020). For the selection of the font, we use the Poppins font. The Poppins font was created by Johnny Pinhorn and currently distributed by the Indian Type Foundry (Google Font, 2022).

Graphical User Interface (GUI). The splash screen section shows the logo of the "BuSia" application with the initials BS. The name "BuSia" comes from the word "Busana Indonesia" which is where this application contains all the clothes that come from Indonesia. The shape of the logo itself is like an inverted coat hanger. The combination of black and white is a characteristic that shows a luxurious and elegant impression like a suit which is usually black. Next is the page to login. Users can fill in their email and password to login in the application. If you don't have an account yet, users can also create an account on this page by pressing Register, while users who have forgotten their password can press Forgot Password. Users can also login using Google and Facebook accounts. After successfully logging in, the user will enter the home menu, where in this menu the user can see products from various MSMEs, besides that on the home menu there are also ongoing discounts. Users can also select categories such as shops, men's and women's clothing and shoes. This application also provides information about the products purchased by the user. In addition to product information, users can also view information from existing MSME stores. This application provides features to view goods in 3D and also features pre-orders. Users can see news about clothing MSMEs in Indonesia and the latest products that will be out. To make a purchase, the user must add items to the cart and the system will calculate all orders and costs automatically. Users can also enter coupons to get discounts. After that, the user fills in the address for the delivery. After filling in the address, the user can then choose the payment method to be used. When the user is done with the payment the user will get a notification that the order was successful and ready to be shipped. (Figure 6)



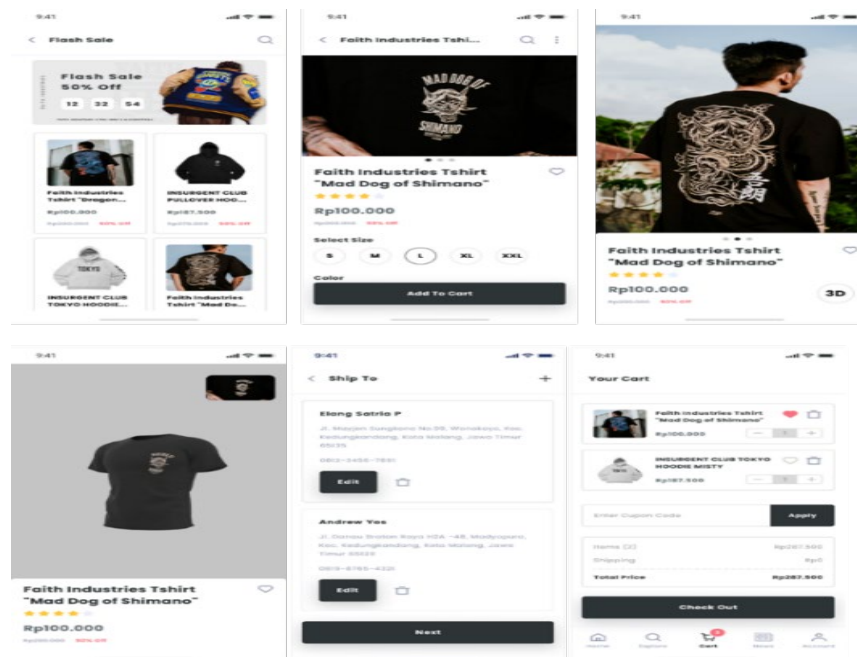


Figure 6. GUI Design for Mobile Apps

6. Conclusion

Based on this research, this research would like to propose a practical interface design for mobile application design by using design thinking process. In this study, researchers designed a Graphical User Interface (GUI) for e-commerce application "BuSia" to help MSMEs in Indonesia, especially in the fashion sector. Therefore, this application should be the most focused essential features that users need to provide services. In this way, the advantages of technology should be exploited, emphasizing that applications can be used to improve service delivery process. Hopefully, this research can be used for further study as a reference to mobile applications published to support fashion MSMEs in Indonesia so that they can develop and compete.

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Biographies

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