UMKM GO DIGITAL AS AN ANDROID MARKETING STRATEGY FOR LOCAL MICRO ENTERPRISES

Marliasari*[1], Lusia Septia Eka Esti Rahayu [2], Muhammad Rasid [3], Muhammad Junaidi[4]

[123]Universitas Satu Nusa Lampung,[4]Institut Teknologi dan Bisnis Diniyyah Lampung

[1]Keisya120413@gmail.com [1], [2] lusiaunisan@gmail.com [2], [3] rasid66@yahoo.co.id [3]
[4]muhammadjunaidi1180@gmail.com [4]

Abstract: The development of information technology is in line with the continuous progress of the times, creating innovation in every generation. One of the most rapidly developing aspects is the world of telecommunications, with mobile phones or Android smartphones as one example. Smartphones that use Android-based operating systems function like computers with Windows operating systems, but offer higher mobility and accessibility. To maximize the potential of smartphones, applications are needed that support their functionality. This study aims to implement an application system specifically designed to help local micro-businesses market their products more efficiently. Through this application, buying and selling transactions become flexible and effective, allowing sellers to manage and increase their sales better. The development method used in this study is the waterfall model, which is systematic and structured. In designing applications for local micro-businesses, there are various menus designed to improve the user experience, including the login menu, homepage, order input, payment, and user profile. With this approach, it is hoped that the application can provide real solutions for micro-business actors in facing marketing challenges in the digital era.

1. Introduction

Information technology is increasingly increasing and developing from each generation, a technology that is very important for human life so that it is very much needed to support activities such as communication, news and trade. One of the systems that is currently widely used is mobile technology on cellular telephone devices (cellphones), especially smart phones. Smartphones are currently widely used among the general public such as students and college students, one of the smartphones that uses an operating system is an Android-based system application.

With the emergence of smartphones, it can change the mindset and habits of society to be more advanced and leave behind old habits.

As with the management of the use of applications, which are basically the most important thing in operating a smartphone. Many applications on smartphones help improve knowledge and the economy. One application that helps people improve the economy is an e-commerce application or an android-based buying and selling application. A buying and selling transaction carried out online which has sellers and buyers in it. With the existence of e-commerce applications, it certainly facilitates the shopping process and increases micro businesses whose products are not yet well known by the wider community. Marketing micro businesses is different from macro businesses, which are basically micro businesses or small businesses, regional

conditions and community habits are also determinants in the development of these micro businesses.

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With the increasing number of UMKM and the location that is not yet strategic, it has resulted in many people not knowing about the products produced by UMKM in certain areas, especially for newcomers. This has resulted in buying and selling activities not developing much, such as sellers of products produced by UMKM and not being able to utilize social media or mobile applications. In their activities, UMKM market their products to shops and supermarkets. This has several disadvantages, including: the price of products placed in shops and supermarkets is usually relatively cheap, because shops or supermarkets profit from the products sold by UMKM, the address of the MSME is not included after the product is sold in shops and supermarkets, making it difficult for consumers to find the location of the product. This is an obstacle for UMKM in developing their businesses. So an online sales application is needed to increase business income [2]

With these problems as reference material in this research, the researcher designed an Android-based Local Micro Business Application in Sendang Agung District. Considering that the condition of the Sendang Agung District area is still classified as rural with product marketing using old methods, the design of the Micro Business Application can enable the people of Sendang Agung District to improve the quality of their economy. Of course, considering that people in rural areas tend to be technologically savvy, this application is designed to be as concise and simple as possible to make it easier for users to operate it. Hopefully this application can change old shopping habits to become more modern in keeping with current developments. Based on the background of the problem above, the problem formulation that will be used as this research is:

1. How is the design of the Local Micro Business Application in Sendang Agung District?
2. How is the implementation of the Local Micro Business Application in Sendang Agung District?

The objectives of this research are:

1. Designing an Android-based Local Micro Business Application in Sendang Agung District.
2. Implementing an Android-based Local Micro Business Application in Sendang Agung District.

Digital Transformation in UMKM

Digital transformation in micro businesses takes place in three stages: 1) Digital competence understands the importance of digitalization. 2) Business digitalization, selection and utilization of digital media such as social media, marketplace applications. 3) Transformation, continued innovation to expand reach and increase customers in a short time (eg two weeks)[3] The digital transformation that has been carried out by UMKM has gone through 3 (three) stages, namely the first digital competence, namely understanding the importance of digitalization and digital media, the second digitalization of business by determining the use of digital media and the effectiveness of the use of digital media that has been used, and the third digital transformation, namely efforts to improve business by innovating so that it continues to survive and develop by expanding the network.[4]

The role of digital marketing as a digital marketing communication strategy is very important for UMKM because, Increasing brand visibility and awareness through social media, e-commerce, email, and websites Reducing the gap in market access between rural and urban areas Making a real contribution to local customer turnover and loyalty[5] The success of digital transformation in UMKM is highly dependent on: Digital literacy of business actors, Ability to use mobile devices,

Awareness of the importance of digital technology in business strategy.[6]

E-Commerce Concept

E-commerce or Electronic Commerce is an activity using information technology and digital processing communications in conducting business transactions to create, change and redefine the relationship between sellers and buyers. E-Commerce has 4 perspectives, namely:

a. Business Process Perspective: e-commerce is the application of a technology towards automation of business transactions and work flow.

b. Service Perspective: e-commerce is a tool that can fulfill the desires of companies, management, and consumers.

c. Communication Perspective: e-commerce is a process of delivering goods, services, information or payments through computer networks or other electronic equipment.

b) d) Online Perspective: e-commerce provides convenience for selling and buying products and information through internet services or other online services [7]

Understanding UMKM

According to the 1945 Constitution, which was then strengthened through MPR Decree No. XVI/MPR-RI/1998 concerning Economic Politics in the Framework of Economic Democracy, Micro, Small, and Medium Enterprises need to be empowered as an integral part of the people's economy that has a strategic position, role, and potential to realize a national economic structure that is increasingly balanced, developed, and equitable. Furthermore, the definition of UMKM was made through Law No. 9 of 1999 and due to the increasingly dynamic development conditions it was changed to Law No. 20 Article 1 of 2008 concerning Micro, Small and Medium Enterprises, the definition of UMKM is as follows:

1) Micro Business is a productive business owned by an individual and/or individual business entity that meets the criteria of Micro Business as stipulated in this Law.

2) Small Business is a stand-alone productive economic business, carried out by an individual or business entity that is not a subsidiary or branch of a company owned, controlled, or part of either directly or indirectly a Medium Business or Large Business that meets the criteria of Small Business as referred to in this Law.

3) Medium Business is a stand-alone productive economic business, carried out by an individual or business entity that is not a subsidiary or branch of a company owned, controlled, or part of either directly or indirectly a Small Business or Large Business with the amount of net assets or annual sales results as stipulated in this Law.

4) Large Business is a productive economic business carried out by a business entity with the amount of net assets or annual sales results greater than Medium Business, which includes state-owned or private national businesses, joint ventures, and foreign businesses that carry out economic activities in Indonesia.

5) The Business World is Micro Enterprises, Small Enterprises, Medium Enterprises and Large Enterprises that carry out economic activities in Indonesia and are domiciled in Indonesia.[8].

Mobile Application

Mobile Application is an application that allows you to do mobility by using equipment such as PDA, mobile phone or (Handphone). By using mobile application, you can easily do various activities ranging from entertainment, selling, learning, doing office work, browsing and so on. The use of mobile application for entertainment is most popular with almost 70% of mobile phone users, because by utilizing the game feature, music player, to video player makes it easier for us to enjoy entertainment anytime and anywhere [9]

Android

According to Nazruddin Safaat in the journal Ayunda Mugiarsih and Sutejo (2017), Android is an operating system for Linux-based mobile devices. Android provides an open platform for developers to create their own applications that will be used for various mobile devices such as smartphones, gadgets and tablets. Initially, Google Inc. bought Android Inc., a newcomer who made software for mobile phones. Then to develop Android, the Open Handset Alliance was formed, a consortium of 34 hardware, software and telecommunications companies, including Google, HTC, Intel, Motorola, Qualcomm, TMobile and Nvidia. At the time of the first release of Android, November 5, 2007, Android together with the Open Handset Alliance stated that they support the development of open standards on mobile devices. On the other hand, Google released

Android codes under the Apache license, a software license and open standards for mobile devices [10]

Figma

Figma is one of the applications used by UI or UX designers in creating interface displays for websites or mobile apps. Unlike Adobe Photoshop, the Figma application makes it easy for several designers to collaborate and work together as a team in the same document and can provide comments, suggestions, and even change existing design plans at the same time. In addition, Figma is real time where every change will be saved automatically[11]

2. Research Method

The data collection techniques used in this research are:

Data collection

a) Observasi, Using the observation method, the researcher directly visited the local micro business in Sendang Agung sub-district and observed and observed the manual transaction methods so that the researcher better understood the problems that would be used as research material.

a. Interview, Using this method, the researcher conducted interviews or Q&A with micro business owners such as grocery stores, to be interviewed about the management and marketing carried out so far so that the researcher could determine shortcuts to market their products.

b) Literature, Collection of data obtained indirectly, or based on existing data, namely in books, insights, and the internet related to the object being worked on.

Design Model

This study uses the Waterfall method. It is a process to develop software sequentially and the process of working on it continues to flow from top to bottom (like a waterfall) through several sequential stages in the form of Requirement (needs analysis), Design (design and modeling), Implementation (application), Verification (testing), and Maintenance (maintenance).[12]
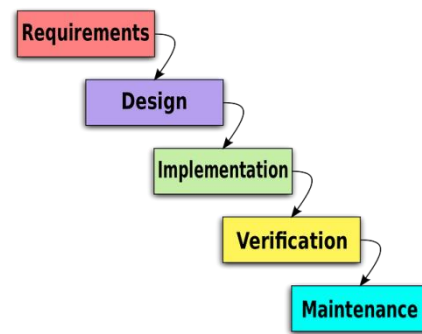

Figure 1. Waterfall Method

a. Requirement This step is an analysis of system requirements. Researchers will dig up as much information as possible from users so that an application/program can be created that can perform the tasks desired by the user.

b. Design, The Design process will translate the requirements into a software design that can be estimated before being implemented. This process focuses on Procedural Details (flowchart).

c. Implementation, This stage is the real stage in working on a system. In the sense that computer usage will be maximized in this stage. Namely the stage where the entire design is converted into program codes. The resulting program codes are still in the form of modules which will then be integrated into a complete system to ensure that the software requirements have been met.

d. Verification, This stage can be said to be the final in the process of creating a system. Namely the verification stage by the user. The user will test whether the application that has been created is in accordance with the user's wishes. This stage is the final in creating a program, but not in the program development method.

e. Maintenance. The final stage in system development in the Waterfall model is maintenance, which includes installation and system repair processes according to user wishes or in accordance with the work contract. [13]

Research Framework

The following is a research flow that starts from preparation in determining the objectives of the research conducted until

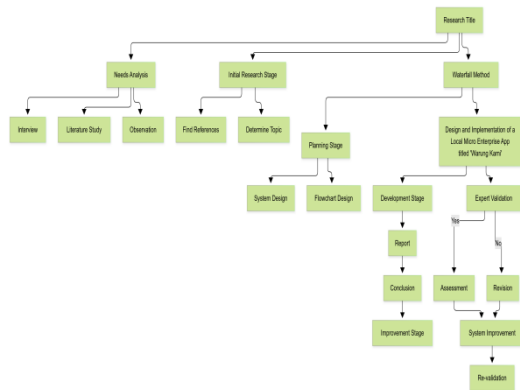finally obtaining appropriate results in this research.

Figure 2. Research Framework

The description of the research framework above is as follows:

1. Initial Research Stage, This stage is the initial stage consisting of determining the topic of the research, looking for references, and identifying problems to determine the title of the research.

2. Data Collection Method Stage, This stage uses the Observation, Interview, and Literature methods in analyzing needs.

3. Planning Stage, This stage designs flowcharts and systems to solve the problem systematically so that they are arranged sequentially using the Waterfall method.

4. Development Stage, This stage is a continuation of the planning stage, namely implementation by designing and creating Local Micro Business applications.

5. Trial Stage. The next stage is to test the system whether the system can run according to plan or not.

6. Improvement Stage. The next stage is to make improvements to the system that has been created so that it runs according to plan and maintenance is carried out in the system.

3. Results and Analysis

System Design

System design is a complete blueprint, as a guideline for programmers in creating applications. The designs used are Flowcharts and use case diagrams.[14]

a. Flowchart

The flowchart below is used to illustrate the explanation of the running of the Android-based Local Micro Business

application system in Sendang Agung District with the application name Warung Kami. The process begins with the user entering username and password data to log in or enter the application menu which will then be directed to the home menu. There are other navigation menus such as the shopping menu and profile menu. Users can select the shopping menu to start transacting and then continue to inputting orders and then inputting locations. Orders will be delivered to the destination location if the user gives an order by selecting order now.
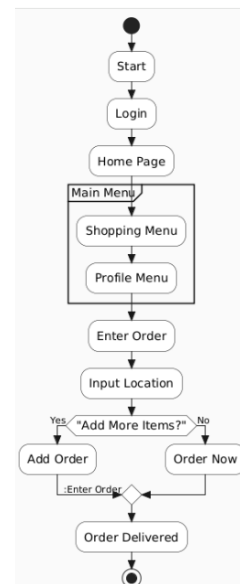

Figure 3. Flowchart

b. *Use Case Diagram, Use case diagram is a relationship of interaction between users and applications that are interrelated or a sequence or steps that are interrelated in action (scenario), either automated or manual. Use cases are depicted in the form of ellipses/ovals. The following use case diagram shows the activities carried out by users on the system.*[15]
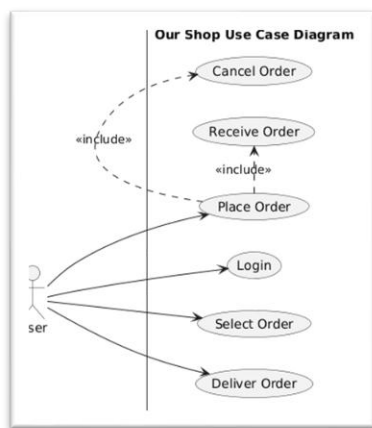
Figure 4. Use Case Diagram.

Explanation:
a) User, or also commonly called a user who uses the application to access a service on the Warung Kami Application.
b) Case Login, in this case section after the user lists a Google account in the login menu, the user gets an include in the form of advanced access to the application menu such as; selecting orders, ordering orders, and introducing orders.
c) C. Case Selecting Orders, in this case the user can select the products or orders listed according to the user's wishes.
d) D. Case Ordering Orders, in this case the user can order orders while selecting the number of orders and then determining the delivery location point.
e) Case Canceling Orders, after the user orders an order, the user gets an extension and has the right to accept the order or cancel the order.
f) F. Case Receiving Orders, in this case the user can accept orders by continuing the payment transaction process.
g) G. Case Delivery Orders, in this case the user can enjoy the application function, namely delivery in the form of products or orders that have been previously selected and then pay for the order through direct payment transactions on the spot or COD (cash on delivery).

Implementation
Login Page
This page is the first step in accessing the application. Users will be directed by pressing the login button and automatically navigate to the account input page.

Figure 5. Login Page

Account Input Page
After the user presses the login option on the login page, the user will be directed to this page. The user can link a Gmail account to continue accessing the application or can also press the "log in as a guest" option to access the application directly without linking an account first.

Figure 6. Account Input Page

Home Page and Navigation

Users who have gone through the login process will be directed directly to the Home and Navigation page. This page is the initial page when opening the application if you have entered an account first. Users will be greeted with a greeting text with the user's name and a greeting text "what are you looking for?" to help users confirm their choice. Users can search for products by filling in the search column to make the shopping process easier. On this page, users are presented with various choices of products listed on the application page. The icon menu on this page is a navigation that can move pages when the user selects the icon navigation option. On the icon navigation there are 5 icon navigations including vegetable, basic necessities, snacks, equipment, and credit navigation icons. There is also navigation at the bottom, namely home, shopping, and profile.

Figure 7. Home Page and Navigation

Shopping Navigation Page

This page is a navigation page that contains a menu of vegetable products. This page will appear when the user selects the navigation icon or product icon on the home page. On this page, only the vegetable menu appears because there are categories for each

product. Users can select an order by pressing the product they want to order.
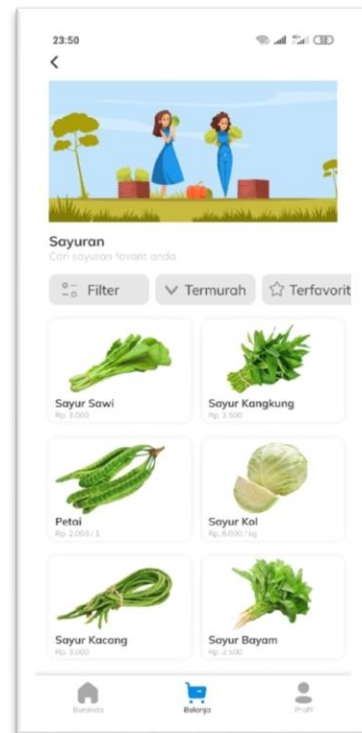

Figure 8. Shopping Navigation Page

Order Page

This page displays the number of orders and product descriptions that have been selected on the shopping page. There are minus and plus buttons that determine the number of products to be ordered. There is also a warning note that displays "minimum order of IDR 25,000" which means that the order cannot be processed if the order fee does not exceed the minimum amount. If the user has determined and is sure of the selected choice, the transaction process will be continued by pressing the add order button at the bottom of the screen.
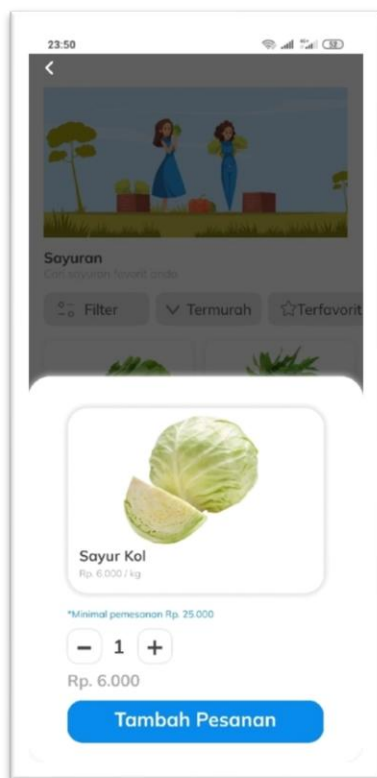
Figure 9. Order Page

Figure 10. Location Input Page

Location Input Page

The delivery location determination will be recorded in detail on this page. The user will fill in the location in the delivery location column, fill in the location information and the user's mobile phone number. The user can also change the number of orders on this page. At the bottom there is information about payment details and payment methods. There is a warning note "for the current payment method, it can only be done in cash" which means that the payment method cannot be through other media other than direct payment methods or cash**.**
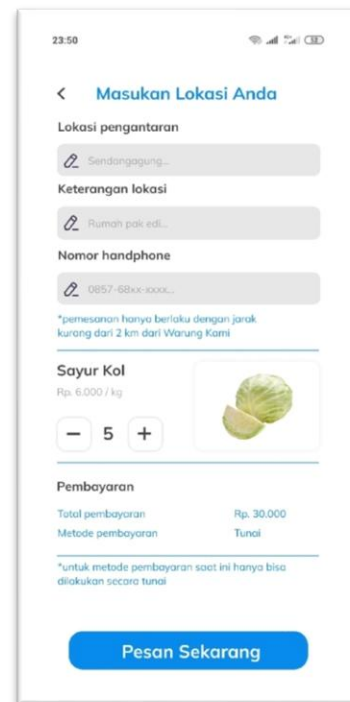
Order Delivery Page

The order delivery information will be displayed on this page. There is a description "please wait for us to send your order in a short time" to inform users to wait for the order delivery. Users can go back to the home page by pressing the back home button to order again or search for other products**.**
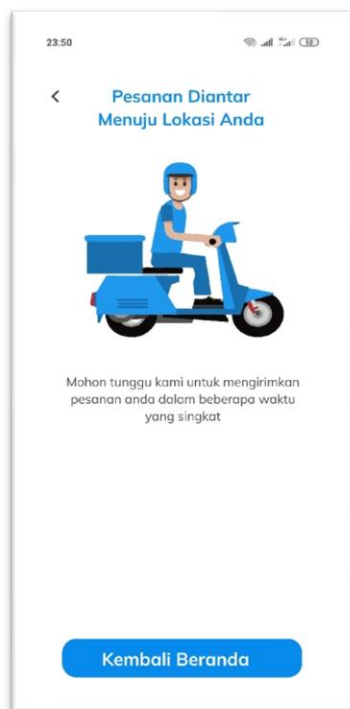
Figure 11. Order Delivery Page

Profile Navigation Page

This page displays the user's profile information which contains a profile photo and the business name and email of the user that has been registered when the user registered in the login menu section.
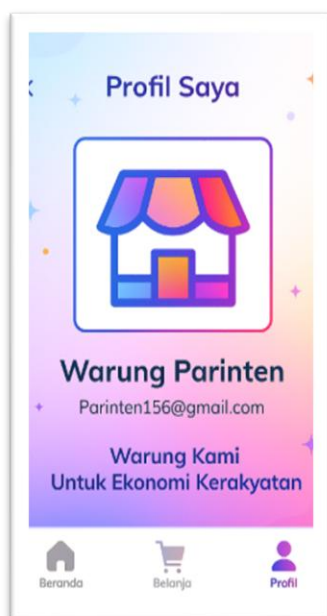

Figure 12. Profile Navigation Page

Analysis of Research Results

The results of the study of an Android-based Local Micro Business Application based on business owner respondents have quite a positive impact on Micro Businesses in the researched area. There are various positive and negative responses regarding the implementation of this application. The following are responses from respondents related to this application.

a) Sales. The sales process with the development of this application can certainly facilitate the buying and selling transaction process and play an active role in promoting products. However, related to market prices that can change, it becomes a job that must be observed to update the price of goods according to market prices.

b) Economy. Helps improve the economy because the application has a large consumer coverage from various regions. However, the long distance is a problem when delivering products to be sent.

c) Usage. The simple UI design is easy to understand and the natural nuance icon images make it easier for every user to operate the application.

4. Conclusion

Based on research, discussion, analysis and Implementation of Android-Based Local Micro Business Applications in Sendang Agung District, the following conclusions were obtained:

1. The Local Micro Business Application aims to facilitate infrastructure in sales. Improve the economic conditions of Micro Businesses in the local area in Sendang Agung District. And help local entrepreneurs to market their merchandise through application media that have a wider consumer reach.

2. The results of the implementation of the use of the Local Micro Business Application have a positive impact on Micro Businesses in the area studied. Of course, the implementation of this application can improve the economy of the local community, especially in Sendang Agung District. This application will continue to be developed and updated to be better for local

micro businesses.

3. This application is a shortcut or another way for users to search for goods or products they are looking for. If users have difficulty finding the desired goods in nearby shops or

traditional markets. Users can search through this application and find out the price directly and then order online which makes shopping transactions easier.

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