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Development of Android Bouquet Snack Olshop Application

Warju Warju^{1,*}, Setya Candra Wibawa², Arini Dalila³, Martadi⁴, Abdul Hafidz⁵,
Sudirman Rizki Ariyanto⁶

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¹ Department of Mechanical Engineering, Faculty of Engineering, Universitas Negeri Surabaya, Surabaya, Indonesia

² Department of Informatics Engineering, Faculty of Engineering, Universitas Negeri Surabaya, Surabaya, Indonesia

³ Department of Management, Faculty of Economics and Business, Universitas Negeri Surabaya, Surabaya, Indonesia

⁴ Department of Design, Faculty of Language and Art, Universitas Negeri Surabaya, Surabaya, Indonesia

⁵ Department of Sports Coaching Education, Faculty of Sports Science, Universitas Negeri Surabaya, Surabaya, Indonesia

⁶ Automotive Technology Vocational Education, Faculty of Science and Technology, Universitas Bhinneka PGRI Tulungagung, Surabaya, Indonesia

*Corresponding author. Email: warju@unesa.ac.id

ABSTRACT

One of the activities carried out by every human being in fulfilling needs is by shopping. Shopping is commonplace in everyday life. However, for people who have very busy activities, shopping becomes a troublesome and time-consuming activity. The objectives of this study are (1) identifying media that can be used as mobile shopping that will be used by the public to shop for a snack bouquet online, (2) identifying the form of e-commerce applications used for marketing bouquet products, and (3) knowing the effectiveness an application to attract people's purchasing power to buy a snack bouquet product that is sold. The research method that will be used in this research is a research development or Research and Development (R&D) of the ADDIE development model. There are 4 stages of the research, namely: 1) Analysis, 2) Design, 3) Development, 4) Implementation, and Evaluation. This research produces (1) media that can be used as mobile shopping, namely e-commerce in the form of web-commerce (website olshop) and m-commerce / mobile retail app (in the form of an application) which will be used by the public to shop for a snack bouquet online, (2) the form of e-commerce application used for marketing bouquet products is in the form of an online shopping application that can be accessed on Android or the website with photos and product descriptions, customer service, and ordering services, and (3) from this research, stated that e-commerce (in the form of web and olshop applications) is very effective in attracting people's purchasing power to buy the snack bouquet products that are sold. This research will also show how this application development testing process can function properly. The results of this study, in the opinion of 30 respondents regarding the Aeris Shop application after implementing the Aeris Shop application. From the results of the questionnaire that was given to 30 respondents, an average assessment of all test variables was 94.8%, which stated that the Aeris Shop application was very feasible and effective to use as a medium for online shopping transactions using Android which could be accessed by the wider community.

Keywords: bouquet Snack, E-commerce, ADDIE.

1. INTRODUCTION

In this millennial era, the technology in the world is increasingly sophisticated. This causes people to be more interested in buying goods or services using technology or social media. People are interested in choosing and consuming things that are instant or

instant. They tend to be lazy to make new things. In this day and age, many people are starting to do business by taking advantage of this increasingly sophisticated situation and technology. They are competing to hone their creativity by making something new and attracting consumers. With their creativity and technological advances, they can compete with other business people

who have already started a business. Sophisticated technology and social media can be used as a means of selling and buying products or services. It remains for entrepreneurs to look for business opportunities that can generate profits and see a little market competition in the business to be started.

E-commerce is a business activity carried out by utilizing internet media.[1]. E-commerce is used as an online sales medium that offers online shopping using applications on Android without having to meet in person [2]. The development of E-commerce has been widely developed and its use is increasing from year to year. From the many users of E-commerce, a system called mobile commerce emerged, which is a transaction process of business activities through mobile devices [1].

Shopping is an activity that people do every day to meet their needs. By utilizing today's technological developments, these activities can be carried out anywhere and anytime such as shopping through an online shop which is accessed through various devices such as smartphones or computers. But for some people who have busy activities, do not have much free time and always work, shopping is a difficult activity to do. In addition, consumers also consider this activity to be less practical because it requires consumers to access the website, type the website address in the browser, select the menu, and decide whether to buy or not [1].

The development of the technology world, such as the existence of a website or application, must indirectly encourage entrepreneurs to be encouraged to innovate the products they will sell. The utilization of technology must be an alternative way that must be used by entrepreneurs to be able to compete with other entrepreneurs. Moreover, Android-based applications have been widely used and affect all aspects of people's lives. In this millennial era, the use of smartphones has become a necessity for the community because with smartphones they can do anything such as social media, shopping for clothes, shopping for household needs, paying for electricity and water, buying credit and so on which they can access only through application.

Entrepreneurs should be encouraged to create and develop a type of android-based application that can be accessed through their respective smartphones. By making an application, entrepreneurs can make it easier for people to shop for their products without having to meet in person or have to leave the house. This application will also help entrepreneurs to increase sales of their products and make it easier for entrepreneurs to develop their businesses. By developing an android-based application, many other advantages will be obtained by entrepreneurs such as a wider range of buyers, product sales can be done anytime and anywhere, no need for large capital to rent a shop and sales tax, high profits to be obtained and easy in applying it.

Moreover, the sale of snack bouquets is increasingly in demand by consumers because they can be purchased online at the prices and variants, they want without having to make their own. To start this snack bouquet business, of course, you do not have to have a large capital. Even with a small amount of capital, a snack bouquet can be made by choosing an affordable product filling price, such as snacks that cost under Rp. 5,000, chocolate, candy, and so on. Another uniqueness offered by this business is the online ordering and purchasing system, where buyers no longer have to make transactions or travel in stores like what happens at other snack bouquet shops. With this online method, buyers can simply use the Aeris Shop application which can be accessed using Android [3].

Micro, Small, and Medium Enterprises (MSMEs) are an important part of the economy of a country or a region, Indonesia is no exception. The development of the Small and Medium Enterprises (MSME) sector gives its meaning to efforts to increase economic growth and to reduce poverty in a country. The growth and development of the MSME sector are often interpreted as an indicator of the success of development, especially for countries with low per capita incomes. As an illustration in 2011-2012, although its contribution to national output (GDP) was only 57.94 percent, MSMEs contributed 99.9 percent to the number of business entities in Indonesia and had a 97.24 percent share in employment. 4].

2. RESEARCH METHODS

The ADDIE model is one of the instruction designs models that are often the basis for other instructional design models. In general, the ADDIE model (Rosset, 1987) consists of the Analysis, Design, Development, Implementation, and Evaluation phases [5]. The ADDIE stages are as follows.



Figure 1. ADDIEStage

The object of this ADDIE research is e-commerce in the form of an application as a digital media in selling online shopping Aeris Bouquet (snack bouquet products, etc.) which is used as a medium to market products to introduce and improve product image in the eyes of consumers. Research questions or Research Questions (RQ) are adapted to the topics discussed, the following is the RQ of this research:

- RQ 1 : What are the forms of media that can be used as mobile shopping that people can use to shop for snack bouquets online?
- RQ 2 : What is the form of e-commerce application used for marketing snack bouquet products?
- RQ 3 : What is the effectiveness of social media and e-commerce to attract people's purchasing power to buy the snack bouquet products that are sold?

The evaluation carried out in this study is a formative evaluation, an evaluation that can occur at any of the previous 4 stages for the need for revision or improvement. Evaluation is based on the results of the tester's validation. Then, data analysis was carried out such as processing responses and respondents' assessments on the questionnaires that had been given with the aim of better product feasibility and application services [6]. From the explanation at [15], we can see that the ADDIE research method has 5 stages, namely **Analysis, Design, Development, Implementation, and Evaluation**. The **ADDIE** research model can be implemented in the software development process by referring to the stages of the waterfall software development model [7].

3. RESULTS AND DISCUSSION

In [17] using the AERIS Shop web and application using the **ADDIE (Analysis, Design, Development, Implementation, and Evaluation) approach model**, there are several stages of making the application according to ADDIE [8]:

3.1. Analysis

The analysis stage is a stage carried out by identifying and evaluating customer needs such as by conducting a needs assessment (needs analysis), which is to determine the media needed by customers to make a snack bouquet purchase transaction and task analysis (task analysis) to find out and clarify whether the problems faced requires a solution in the form of making the AERIS Shop application to identify and evaluate problems in the development of e-commerce applications (AERIS Shop Applications) so that improvements can be made carefully and the objectives are running well and maximally.

1) Application building software

The olshop open application is an Android-based online shop application maker application. The APK file generated by Buka Olshop is an online store that you create yourself and manage the olshop through Buka Olshop. The material used and implemented in the application is taken from Products that have been made

by online sellers without using applications and product samples taken from Google[8].

- Snack Bouquet (own product)
- Snack and Chocolate Bouquet (own product)
- Chocolate Bouquet (own product)
- Cash Bouquet (image on google)
- Greeting Card (image on google)

2) AERIS Shop App

AERIS Shop is an olshop application from the online shop AERIS Bouquet. AERIS Shop was formed as an Android-based application that can be accessed by downloading the application or through its website. AERIS Shop is used as a medium to market bouquet products using an application that can make it easier for customers to buy snack bouquets without having to leave the house. AERIS Shop offers a variety of bouquet products, namely snack bouquets, chocolate bouquets, snack variety bouquets, snack and chocolate variety bouquets, cash bouquets, and greeting cards. Customers can choose which bouquet to buy and customers can also request the contents, price, and writing of the desired bouquet.

3) AERIS Shop website

Unlike the AERIS Shop application, on the website, you do not need to download the AERIS Shop application on Android. The website will display the same display on the AERIS Shop application so you can open it using a website link on a smartphone or on other devices such as laptops or computers.

3.2. Design

This application is named "AERIS Shop". This name was made in accordance with the name of the snack bouquet product itself, namely "AERIS Bouquet". This name was made from the abbreviation of the olshop owners, namely Arini and Ismy (partners).

The AERIS Shop application was made using the Buka Olshop application. Before moving on to the application creation process, the first step we have to do is create a logo for our online shopping to make the logo function as a logo, form of identity of an entity to the general public, providing information, supervision, and control, as well as conveying a motivational message to all parties by the goals of the AERIS Bouquet brand [9]. The following is a display of the "AERIS Shop" application



Figure 2. AERIS Shop App Icon

After that proceed to the application design. The design that will be made will be directly explained at the Development stage.

3.3. Development

1) Application Design

This application is made using Indonesian to make it easier for people to understand how to apply it. The following is the flow of designing and creating the application:

- Open Playstore and type Open Olshop then install

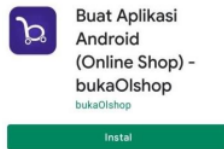


Figure 3. Applications Open Olshop

- Register your account by filling in your full name, email address, cellphone number, and password. Then fill in your Olshop Setup
- Select the theme color as the Background of the application and add the delivery location
- Select the payment method used in the Aeris Shop application, then click save. Verify your account via the link shared to the e-mail you registered.
- Then click "Shop" and set any required slides such as delivery location, payment account, product category, personal branding, admin contact, store policy, and others.
- Click the product and click the + icon then enter the contents of the product information for the bouquet to be sold such as product name, product description, product type, product variety, and add pictures of the products being sold.
- Click the application and adjust its settings, such as application settings, store settings, display settings. Then after all the processes are complete, click create the Olshop Aeris Shop APK then wait for it to download. To share the application that you have created, click the APK download link or you can share it via the link, WhatsApp, Facebook, and others.

2) Application Design from the seller's point of view.

The following is the design of the Aeris Shop application taken from the seller's point of view using the Buka Olshop application.

- The "Main" view of the Aeris Shop store on the Olshop Open Application.
- The "Product" view can be edited and added by the seller in the Aeris Shop application via the Buka Olshop application.

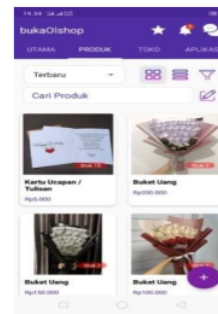


Figure 4. "Product" Display

- A "Shop" view that can be accessed by sellers to add or edit existing features on the Aeris Shop Application.
- The "Application" display where there is an APK download link and an Olshop website link that the seller can share with friends and other customers.
- "My Notifications" display. In this view, you can receive notifications from the Aeris Shop Application so that sellers can see notifications that have not been opened and those that have been opened
- Display "Member Discussion". In this display or feature, sellers can exchange messages with members or customers on the Aeris Shop Application so that if a complaint or question occurs, the seller can see messages sent by customers on the "Member Discussion" display.

3) Application Design from the customer's point of view.

The following is the design of the Aeris Shop application taken from the customer's point of view using the Aeris Shop application, starting from the Home, Browse, Transactions, Accounts, Products, Product Description,

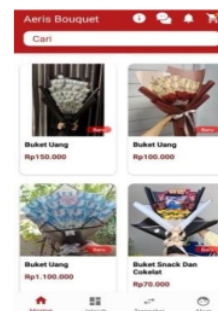


Figure 5. Display "Home"

Product Variations, Notifications, Discussion Rooms, and Shopping Cart views:

- Display "Home"
- "Browse" view
- Transaction View
- "Account" display

- Product display, description, and price of the bouquet.



Figure 6. Product display

- Display “Notifications”
- “My Discussions” view
- Shopping Cart Display

3.4. Implementation

Implementation is the ADDIE stage in the form of introducing the application to the public as users of the application. In this process, the public is introduced to how to use the application, starting from the appearance of the application, buttons, and how to buy products on the application.[8]. The AERIS Shop application flow has 9 stages, namely:

- 1) In The first stage, users must download the AERIS Shop application using the application link that has been shared.
- 2) The second stage is, the user must register (sign in) your account by entering the e-mail data, e-mail password, and so on in the application display. If you already have an account, all you have to do is log in to your account by simply entering your e-mail address and e-mail password.
- 3) The third stage is to choose a bouquet product that is sold on the application. Examples of bouquet products are snack bouquets, chocolate bouquets, cash bouquets, other greeting cards tailored to the variety of bouquets.
- 4) The fourth stage is to choose the variant and price of the desired bouquet on the product. An example is a bouquet for Rp. 70,000 you can choose a bouquet variant as you want, such as chocolate dominance or snack dominance. You can also write a note if you want to request a bouquet filling, such as wanting a beng-beng snack, twisko, tango, and others.
- 5) The fifth stage is choosing the delivery medium. In the snack bouquet application, there are two delivery media, namely by using J&T and POS delivery services. Then add the destination address.

6) The sixth stage is to look at the shipping costs that will be borne by the buyer after choosing the delivery service.

7) The seventh stage is to choose the payment method used. In the AERIS Shop application, there is only 1 payment method, namely by using DANA. Buyers can pay for bouquet orders using their DANA balance.

8) The eighth stage is waiting for the purchased goods to be sent by the selected freight forwarder.

9) The ninth stage is to provide an assessment of the purchased product. If the goods purchased have been sent by the freight forwarder at the buyer's address, the buyer must provide an assessment of the product he has purchased. The assessment contains whether the buyer is satisfied with the product purchased, satisfied with the delivery service, or is there customer dissatisfaction with the product and delivery service.

3.5. Evaluation

The evaluation stage is carried out by providing a questionnaire in the form of a google form given to 30 respondents. They were asked to give their opinion about the AERIS Shop application after implementing how to access the application. After that, from the results of testing and giving this questionnaire, it will be evaluated what needs to be improved or developed in this AERIS Shop application.

Table 1. Test Variables

NO.	VARIABLE
1.	Ease of understanding product information on the AERIS Shop application
2.	AERIS Shop App display eligibility
3.	Ease of operating the AERIS Shop application
4.	The feasibility of the AERIS Shop application as a means of online shopping transactions.
5.	The ability of the AERIS Shop application defines the correctness, adequacy, suitability of the contents in the sale of bouquet products

From the results of testing and questionnaires that have been given to 30 respondents, it is stated that the AERIS Shop application obtains an average rating of all variables of 94.8% where the AERIS Shop application is in the eligibility criteria between 80% - 99% which means that the AERIS application is The shop meets the standards and is very suitable for use as a medium for online shopping transactions using Android that can be accessed by the wider community.

Table 2. Test Results

No.	Variable	Ket
1.	Ease of understanding product information on the Aeris Shop application	94%
2.	Aeris Shop App display eligibility	97%
3.	Ease of operating the Aeris Shop application	92%
4.	The feasibility of the Aeris Shop application as a means of online shopping transactions.	96%
5.	The ability of the Aeris Shop application defines the correctness, adequacy, suitability of the contents in the sale of bouquet products	95%

From the results of the respondent's test, it was concluded that the Aeris Shop application was very effective in attracting people's purchasing power to buy the snack bouquet products that were sold and suitable to be used as marketing media for the snack bouquet products online.

The evaluation that needs to be done is to make further improvements to the Aeris Shop application on the features and systems that exist in the application, innovate on the bouquet products sold and develop or upgrade the features and systems in the Aeris Shop application.

4. CONCLUSIONS AND SUGGESTIONS

4.1. Conclusions

1) E-commerce is a business activity carried out by utilizing internet media. E-commerce is used as an online sales medium that offers online shopping using applications on Android without having to meet in person. Entrepreneurs should be encouraged to create and develop a type of android-based application that can be accessed through their respective smartphones.

2) Media that can be used as mobile shopping that will be used by the public to shop for snack bouquets online include the Aeris Shop application and the Aeris Shop website.

3) On the Aeris Shop Application and Website, many features can be used to shop for snack bouquets. The appearance of the application is no less attractive, as well as various kinds of bouquets sold on the Aeris Shop application and website.

4) From the results of testing and questionnaires that have been given to 30 respondents, it is stated that the Aeris Shop application obtains an average rating of all

variables of 94.8% where the Aeris Shop application is in the eligibility criteria between 80% - 99% which means that the Aeris application is The shop meets the standards and is very suitable for use as a medium for online shopping transactions using Android that can be accessed by the wider community.

The suggestions that the author will give for the development of the Aeris Shop application that has been made are.

1) This application can be further developed by adding a variety of bouquet products, in-app systems, and adding functional features in the application.

2) Application development must be more creative both in terms of the appearance of the application and the variety of bouquets that must be more creative.

3) Adding a QR code feature that makes it easier for consumers to pay, download only through a QR code.

4) The application that has been developed can be installed on the Playstore so that it can make it easier for other users to download it without having to share the APK link.

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