



Development of Macaroni Fusilli E-Commerce Application Based on Android

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Abstract. Sidoarjo is a district located in East Java Province. Various kinds of contemporary snacks, one of which is macaroni, are growing rapidly in this area. However, there are obstacles in access to marketing, namely the difficulty of implementing a marketing system to compete in the digital era. E-commerce is a form of marketing using information technology and is a suitable medium for buying and selling online. The objectives of this study are (1) Developing an android-based e-commerce application for fusilli macaroni. (2) Make it easy to order fusilli macaroni. (3) Attract consumers to buy with creative designs. The method to be used is the ADDIE method, by analyzing, designing, developing, implementing, and evaluating. This research resulted in (1) the BukaOlshop application which is used for the sale of fusilli macaroni. (2) A feature that makes ordering via cell phone easier without having to come to the shop. (3) Attractive and creative design. With the development of increasingly sophisticated technology, it can be used as an online business opportunity because it will make business activities more effective and efficient.

Keywords: macaroni fusilli · e-commerce · ADDIE method

1 Introduction

In today's society, it is very dependent on technology, one of which is information system technology. The development of increasingly advanced technology is felt that it has not been fully utilized by some macaroni fusilli business actors, so people still have difficulty ordering, if they want to get it, people still have to come directly to the store. However, with the current conditions, namely the Covid-19 pandemic, there are certainly many obstacles in all aspects, including entrepreneurs in running their businesses and not a few entrepreneurs who have gone out of business because they are not optimal in running their businesses. There are so many prohibitions that must be obeyed. Such as wearing a mask, keeping a distance, leaving the house as necessary, and much more. People find it difficult to shop outside their homes because they are afraid of getting the covid-19 disease. This is one of the factors that influence the obstruction of business processes running [1, 2].

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Currently, one of the alternatives for people if they cannot buy goods directly is by shopping online. Online shopping or E-commerce is an online sales medium that offers the convenience of shopping without having to meet in person, through e-commerce sites can see the products being traded in the form of images, videos, or text, thus making buying and selling transaction activities more efficient [3]. Maulana argues that e-commerce can be used as a source of information to compare prices or see the latest products offered, before making a purchase at an online store [2, 4, 5].

Along with the development of digital technology 4.0, the industrial sector has become increasingly competitive [6, 7], Including in the culinary industry. However, this must be used in order to encourage the development of the culinary industry. Because at this time most people follow technological developments and not a few of the entrepreneurs who use these advances to market their products [8–10].

Therefore, through the open application Olshop in the sale of macaroni fusilli can be ordered easily, because we do not need to come directly to the store, but order online. And also make business activities more effective and efficient [11, 12].

From the explanation above, there are several goals, namely (1) Making a safe and reliable online shop application so that customers can buy goods with peace of mind. (2) Make it easier for people to order macaroni fusilli (3) Attract consumers to buy with creative designs. (4) Develop a business during a pandemic so that all entrepreneurs can still develop their business without being constrained by circumstances.

2 Methodology

The method that will be used in this study is the ADDIE method [13–15]. This method is in accordance with the studies on businesses that require marketplace development carried out in this article, because this method is able to produce and test the effectiveness of a product. This method uses 5 stages, namely analysis, design, development, implementation, evaluation. With the following considerations: (1) The application of marketplace is not optimal (2) Product marketing strategies through the marketplace to make it easier for consumers to understand the product clearly. Research Question (RQ) that is tailored to the topic in this article, here is the RQ of the topic raised:

RQ1. What is the stage of making and how to order a marketplace that is used to create a macaroni fusilli business?

RQ2. How to attract consumers with a creative design?

The stages of the ADDIE method have 5 stages, namely analysis, design, development, implementation, evaluation [14].

1) Analysis

At this stage, namely analyzing new models or methods and analysing the feasibility and requirements for developing new learning methods begins with problems in the learning models/methods that have been applied. At this stage, analyze how much interest people will use the openOlshop application and how much people are interested in buying products.

2) Design

A training designer needs to carry out the initial design of training/learning programs, design training materials and design training evaluations conceptually which

will later be used as a basis in the development stage. In this next stage, we will design digital media, which is an application to make it easier for consumers, this application will be compiled and developed as well as possible to provide convenience to consumers, as well as arranging fonts, colors, images that will be in the application.

3) Development (develop)

Activities are carried out by realizing the concepts that have been made at the design stage that has been carried out previously. This development activity realizes the framework created in the form of training materials, the preparation of equipment to be used in training, and the creation of training evaluations. At this stage of development, start to test the ease of using the application as a means of supporting product offerings, and start trying applications designed to the nearest community.

4) Implementation

The stages at which the training program is implemented. The training program is carried out in accordance with the planning of the already created training methods and the use of the materials that have been created. After entering the development stage at this stage begin to publish product offerings using applications that have been designed to consumers.

5) Evaluate

Evaluation is carried out in order to review the implementation of training whether it is in accordance with the needs or not. Then the evaluation is also used by the training designer to correct the shortcomings of the method used, so that future learning activities can be better designed. The last stage is to evaluate if there are consumers who are in trouble, or complain, and make improvements to existing errors.

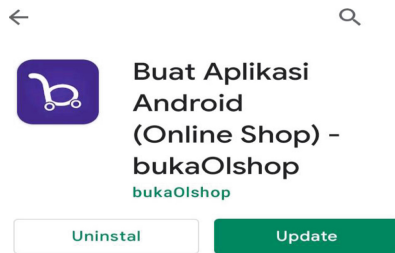
3 Result and Discussion

The results of the late system evaluation testing were made as well as the development in making the Bronizen product market place application through the stages of the ADDIE method has found an application that matches the standard of desire according to sellers and buyers. RQ1. What is the manufacturing stage and ordering method that is used to create the macaroni fusilli business application? Creating a marketplace application is not as difficult as imagined, only with a cellphone, we can already create applications without the need from a laptop, before making an application you should think about the concept of the application how the form, content, what products will be sold, product photos, prices, and designs [16–18].

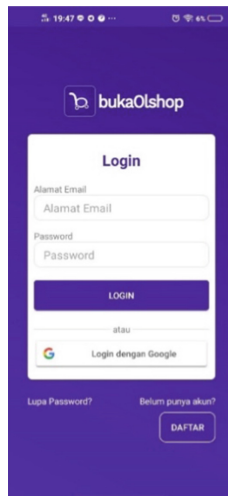
Making a logo is also important in addition to beautifying packaging, it can also make consumers remember what we sell, many websites or applications that can be used to create product logos for example Canva and Adobe. But using canva is easier inside canva already provides a lot of templates or examples of existing logos, and the logo can also be used as an icon of the marketplace application to be created [19].

If you have thought about the existing concept and finished making a logo as a product identity. After that create an application, here are the steps in creating a marketplace application:

1. Download the “Open Olshop” application, because through this application we can easily create a marketplace



2. After downloading the app, log in first



3. Then fill in the store name, application name, specify a color theme as the appearance of the application, upload the store logo, fill in the seller's address, fill in the seller's ATM account number, fill in the seller's social media number and account, provide information for customers about the store policy.

Pengaturan Aplikasi

Nama Toko
MASULLI

Nama Aplikasi
MASULLI

Warna Tema Aplikasi
#9CCC65

Icon Aplikasi

Nama Package
com. masulli

4. Upload a product photo accompanied by the product name, full description, product size, product weight, product price, and if the product has a pre-order system, you must fill in the pre-order time set.

10:22 5G

Tambah Produk

Informasi Produk

Nama Barang
Nama Barang

Deskripsi Singkat (opsional)
Selogan produk/deskripsi singkat

Deskripsi Barang Lengkap
Masukkan deskripsi disini...

Kategori
Kemasan Pouch

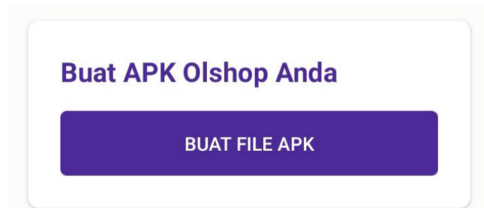
Lokasi Pengiriman
Nimas Maulidia, Sidoarjo,...

Tipe Produk
 Produk Fisik
 Produk Digital

5. Choosing a shipping service for the product.
6. After all the data is filled in completely, at the top of the display there is a link used to download the application with the words "Create Apk File". Then wait for the inbox on the e-mail. The next step is to install so that the application is ready to use.



Fig. 1. Marketplace app view



After the creation of this application, promote it to friends, friends, family, or relatives and ask for help to promote it on their respective social media.

As for the stages for ordering through the application, it is as follows:

In Fig. 1 this is the appearance of the marketplace application, this application. Consumers can get the application for free just by downloading the link <https://app.bukaolshop.com/toko/masulli>, if consumers do not want to download we provide a web to still be able to open applications with links <https://masulli.bukaolshop.site>.

The application In Fig. 2, consumers are expected to register an identity, by filling in the fields of full name, email address, password and phone number, address, account number, and personal data such as date of birth, gender, profile photo of the account owner as a form of consumer account security. After the consumers log in / register, a display will appear like this:

In Fig. 3, consumers can see the product or menu of the fusilli macaroni, the photo displayed in the application is a real picture, if consumers want to contact us, they can via the chat icon at the top right. If consumers want to see in detail / order tap the variant they want, later details will appear like this:

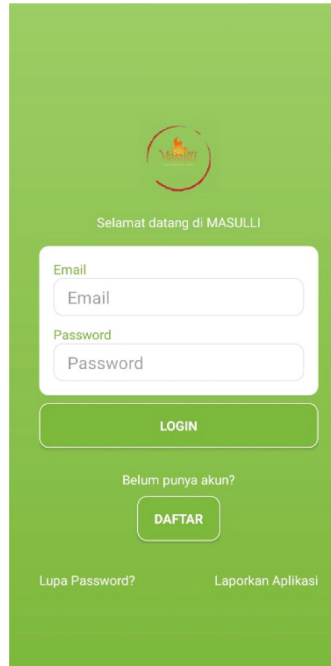


Fig. 2. The initial display when opening

In this Fig. 4 are product details, ranging from price, product information, product weight, pre-order description, condition, box contents, as well as warranty, stock, and expedition options that will be used to send the product. If the consumer wants to continue the purchase, tap “Buy” later it will be continued for delivery confirmation as follows:

In Fig. 5, consumers are encouraged to fill in the province, city, sub-district, zip code, full address, buyer’s name, and telephone number. Since this is important data consumers should fill in correctly. After this, continue on the payment menu as follows:

In Fig. 6 this is a display where it has reached the end of the order, please check again when you want to pay, the payment can go through the bank that has been listed or you can use member points, after making a payment the admin will contact the consumer directly and confirm the data again so that there are no errors, after that the consumer waits for the product to arrive home approximately 2 days after payment.

RQ2. How to attract consumers with a creative design?

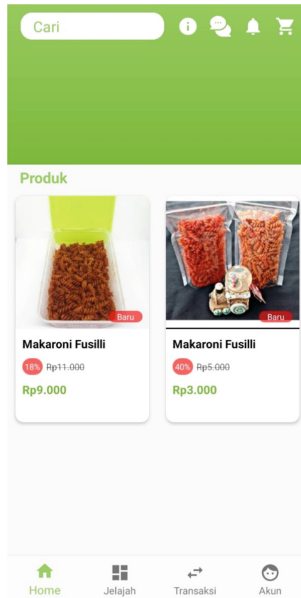


Fig. 3. Product display

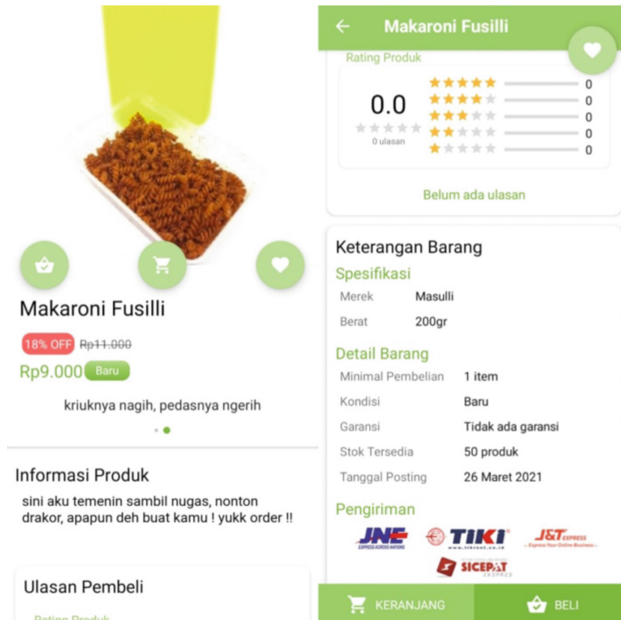


Fig. 4. Product Details

← Tambah Alamat

Provinsi Jawa Timur

Kota Sidoarjo

Kecamatan Waru

Kode Pos 61219

Alamat Lengkap
JI.Brigen Katamso 3/31 Rt 26 RW 06

Nama Lengkap
Nimas Maulidia

Nomor Telepon
085816057668

SIMPAN ALAMAT

Fig. 5. Delivery confirmation display

← Detail Transaksi

Pilih Pembayaran

Transfer Bank

MANDIRI SYARIAH

Konfirmasi Otomatis ?

Gunakan Voucher/Promo

JNT

EZ (Rp7.000,-) Estimasi hari

Makaroni Fusilli

Qty: 1 Total berat: 200gr

Sub total : Rp9.000

testasd

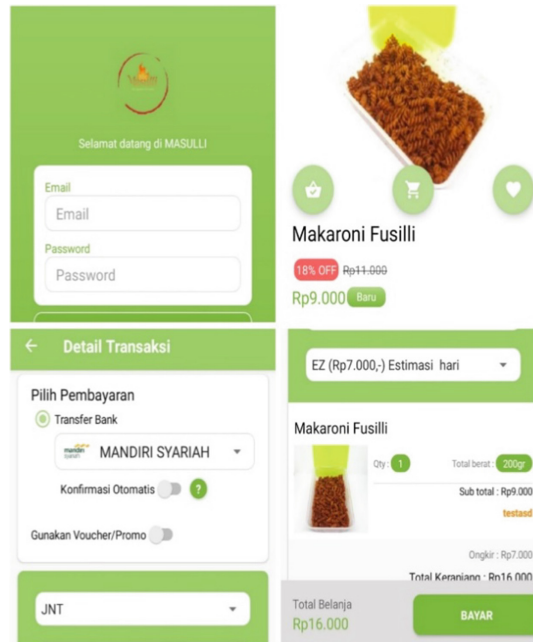
Ongkir : Rp7.000

Total Keranjang : Rp16.000

Total Belanja
Rp16.000

BAYAR

Fig. 6. Tampilan menu pembayaran



Quoted from an entrepreneur journal, visual marketing or commonly known as visual marketing is a way of communicating a brand or product using images, videos or other visual media. Visual marketing can be used to build connections and emotional approaches with customers in a more personalized, more interactive manner, and will ultimately help drive sales. The power of visuals will make product marketing stronger and more memorable. As well as being able to turn intangible things into something concrete, helping people in imagining your message and the brand or product in their minds. To get a creative and attractive design, you can do it by making a simple or simple design but looking elegant, don't have too many ornaments, use unobtrusive colors, you can use pastel colors to add an elegant impression. The following is an example of a design that is simple but looks elegant.

4 Testing and Questionnaires

This test and questionnaire aims to determine the quality of the application made whether it has achieved a feasibility in accordance with the standards to the respondents concerned. The respondents involved in this test are field testing. For field testing, it was carried out by students majoring in Management, Faculty of Economics and Business, Surabaya State University, 2020A Management class as many as 34 students, and out-of-class students, and General as many as 31 people. So that the total is as many as 65 people.

The questionnaires and grids carried out from the tests in this study were taken based on ISO 9126–1 standardization, there are several characteristics in testing the quality of software, consisting of variables Understandability, Learnability, Operability,

Table 1. Test Grids

No.	Variable	Information
1	Understandability (Dimengerti)	Capabilities in software that are easy for us to understand
2	Learnability (Dipelajari)	Capabilities in software that are easy for us to learn
3	Operability (Dioperasikan)	Capabilities in software that are easy to operate
4	Functionality (Fungsi)	Capabilities in software that provide accurate functioning, security, display, and management of data at the time of use
5	Content (Isi)	Ability to define truth, adequacy, suitability of the content contained therein

Table 2. Eligibility Criteria

Information	Answer
Excellent	81%–99%
Good	61%–80%
Usual	41%–60%
Not Good Enough	21%–40%
Very Bad	0%–19%

Table 3. Questionnaire Results

No.	Validation By	Result	Information
1	Management Student 2020A/Field Test	84,4%	Excellent
2	Out-of-Class and General Students/Field Test	82,2%	Excellent

Functionality, and Content [20]. Here are the characteristics of ISO 9126–1 in the table along with the criteria and results [21] (Tables 1 and 2).

The results of the analysis above can be concluded that the application of the android-based masulli commerce application is very good and can improve product image and consumer trust (Table 3).

5 Conclusion

Based on the results of the discussion and testing above, it can be concluded that by using e-commerce as a marketing tool can help sellers of macaroni fusilli get a wider sales reach, sellers and buyers can make transactions in one application. By using the

information system design in this writing, it is hoped that the public can easily order macaroni fusilli and save more time.

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