

## Website-Based E-Market (E-Patali) Application For Gorontalo City Central Market

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### ABSTRACT

The rapid growth of technology is impacting the world of marketing. Marketing trends are shifting from offline to online. Gorontalo people's consumption level increases, but the market will only look crowded on certain days or ahead of religious holidays. Current conditions, the lack of interest of prospective buyers because of the easy access of technology in online shopping should increase market traders' sales. In addition to selling conventional merchandise can also sell online. The purpose of the research is to produce a website-based e-market application that allows traders in the central market to sell online and increase revenue and reduce operating costs. E-commerce applications are called E-markets. This e-market itself is not the first time because the e-market in collaboration with BRI can be accessed <https://e-pasar.bri.co.id/>, but after being searched more deeply into the central market website is not included in the digital business, In the E-patali application, sellers can display photos of their sales and prices. At the same time, buyers get a large selection of goods based on the category of goods they need, from groceries, clothing to service services in the central market of Gorontalo. Applications are designed based on the stages carried out, namely the analysis, design, implementation, testing, and maintenance steps. The study results were then conducted at Gorontalo Central Market Traders to increase sales through online transactions by not leaving the old (Offline) sales system.

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## 1. INTRODUCTION

Modernization is like the unstoppable pace of jets, many changes that occur as modernization progresses, from conventional to modern. This change has had a significant impact on all aspects, one of which is the existence of traditional markets. The emergence

of modern markets such as Malls and Supermarkets creates disproportionate competition with traditional markets[1], the technology that is developing technology has an impact on the world of marketing. The world's marketing trends are shifting from offline to online. This marketing strategy is more prospective for potential customers to obtain information about the product and transact online. [4].

Gorontalo province is one of the new provinces that is developing, the rate of dissemination of information and communication technology (ICT) is almost the same as other regions in Indonesia. However, utilization is not yet maximal. The people already know the internet, most activities are not separated from the virtual world, ranging from socializing, seeking information to doing transactions. This includes online shopping, Gorontalo people's consumption rate continues to increase. However, along with the development of technology, the ease of obtaining, and the growth of modern markets, people have begun to abandon the habit of shopping directly in the market. The market will look crowded on any given day or ahead of religious holidays only.

Gorontalo has several traditional markets, and some are open daily and on certain days. One of the markets in Gorontalo is Central Market; the central market is the largest in Gorontalo, there provide primary and secondary needs of the community, ranging from groceries, clothing, accessories, jewelry, electronic service places, sewing services, to food stalls. Based on preliminary research conducted in general, there is a trend of decreased merchant sales on weekdays, quiet market because shoppers prefer to shop in supermarkets and order their needs online.

The current condition, the quiet interest of prospective buyers due to the easy access to technology in shopping online, should be used to increase market traders' sales. The method taken is to use a digital marketing system or better known as e-commerce. So, in addition to selling merchandise directly, we can also sell online.

Researchers intend to create an e-commerce app called E-market. This e-market itself is not the first time because already e-markets that work with BRI can be accessed <https://e-pasar.bri.co.id/>. However, after being searched more profound into the Website, the Central market is not included in the digital market. Therefore, the purpose of this research is to produce a website-based e-market application that allows traders in the central market to sell online, increase revenue, and reduce operational costs.

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## 2. RESEARCH METHOD

### 2.1 Research Sites

This research was conducted in Gorontalo Central Market, located on Jalan Dr. Setia Budi Limba U 1 Kel. Kota Selatan Kota Gorontalo and did not close the possibility of conducting surveys in several other markets. Then the next activity is carried out in the laboratory software Interview engineering INFORMATION System STMIK Ichsan Gorontalo for software development experiments.

### 2.2 System Analysis Methods

The method used in the research is the Waterfall method. The reason for selecting this method is that it approaches systematically and sequentially, starting from the level of system needs and then to the stage of analysis, design, coding, testing, and maintenance.

More details can be seen in the image below:

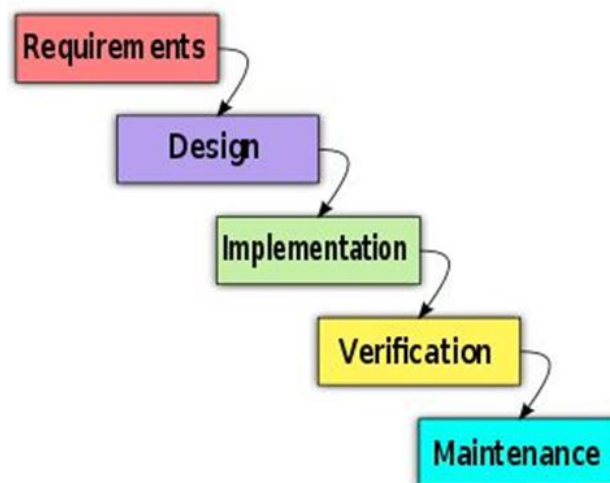


Figure 1. Waterfall Method

The stages that are passed based on the waterfall method are:

- 1) Analysis stage, this activity includes cost analysis, needs, and usefulness of the software that users expect and software limitations
- 2) Design Stage provides an overview of what to do, including it in the application view.

- 3) Implementation Stage, at this stage, the coding period of the program is broken down into small modules and combined in the next stage.
- 4) In the testing phase, at this stage, the researchers conducted simulations/trials with two testing methods and then simulated on a limited scale to potential users. This simulation is done to find out if the design is suitable or still needs improvement.
- 5) Maintenance. It is the final stage of the waterfall; the software has finished and is ready to be launched en masse.

Based on the stages described above, the researchers created the research flow in a Fish Bone diagram.

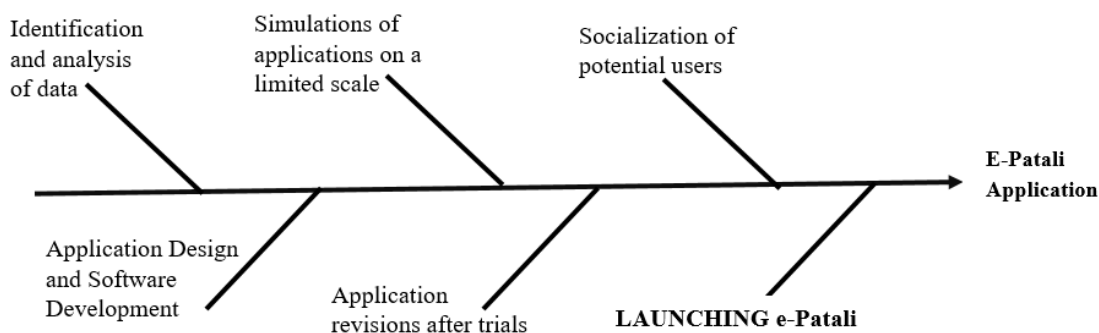


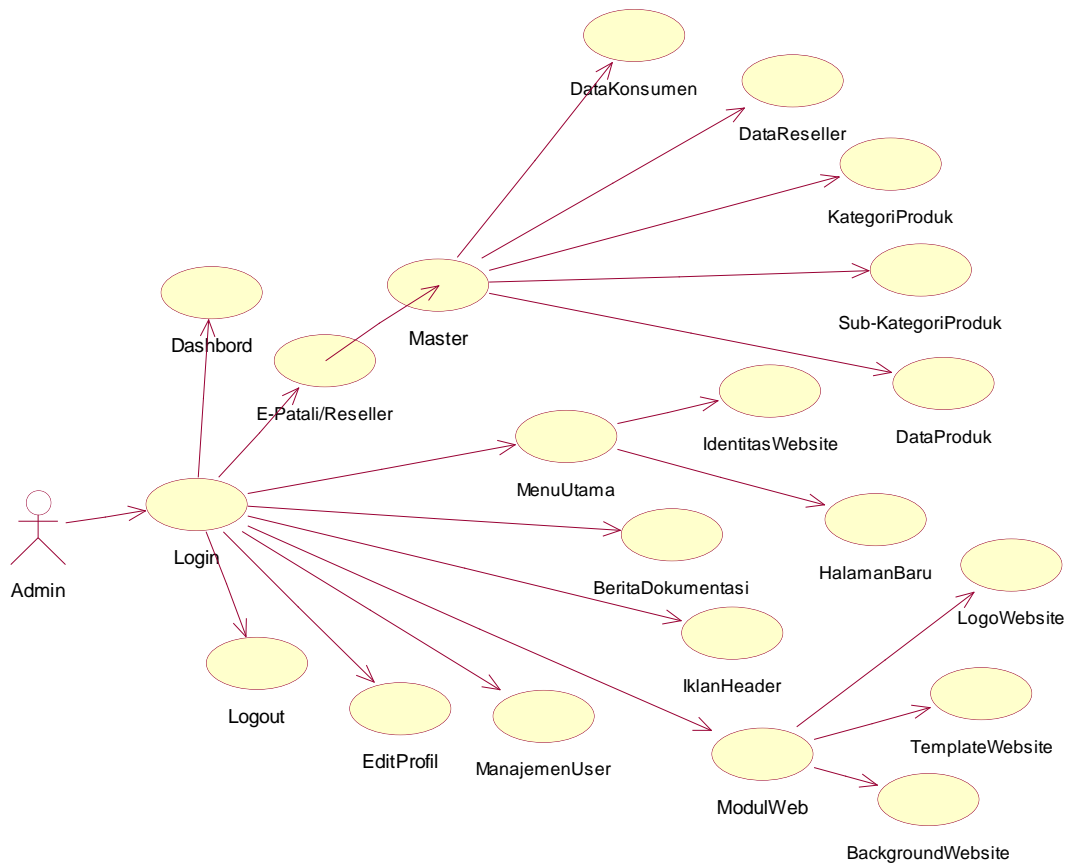
Figure 2. Fish Bone Diagram

Figure 2 explains the flow of research done by researchers over the next year. The researchers will survey the location, conduct interviews with potential users to obtain data, and document it in the form of photos. The next step of researchers will be to design applications and develop software based on the data in the field. After that, in the next stage, researchers will conduct a trial/simulation of the Application on a limited scale to know how ready the Application is to be implemented and fix the bugs/errors encountered; further activities continue to revise the Application after the trial. After that, researchers will socialize against potential users from launching e-market applications.

When the research was conducted, there was a problem with the spread of the Covid 19 virus that entered the Gorontalo area at the end of March 2020. The pandemic caused markets to operate abnormally and made it difficult for researchers to obtain concrete data in the field. Another obstacle is the PSBB policy which limits the space for researchers to carry out research activities.

### 3. RESULT AND DISCUSSION

In the planned system, there are three actors involved, namely Admin, Seller, and Buyer. The design uses UML to understand the course of the system more efficiently.



**Figure 3.** planned system

User: The user is a buyer and seller who uses an e-market system that transacts online.

Administrator: An administrator is an admin who can manage everything that is in the e-market system.

In general, the flow of the e-market application design can be seen from the activity chart image below:

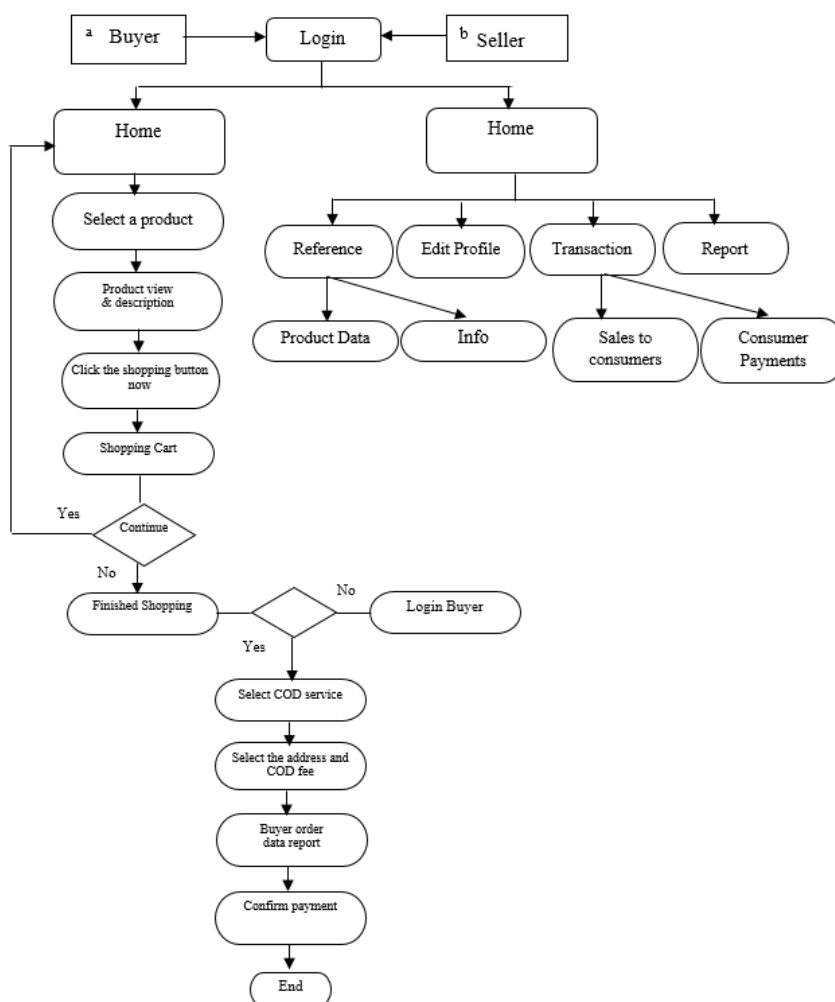


Figure 4. Activity Chart Image.

In the activity, the diagram described the buying and selling process starting when the buyer logs in on the homepage page, then starts selecting the product and sees the product description, and puts it in the shopping cart if doing shopping activities.

After selecting the goods, the buyer then selects the Cash on Delivery (COD) service and fills in the destination address. This app only provides COD services to enable Gojek, Grab, and Bendor services around the central market.

#### Implementation of E-market

Display Application e-patali (Market in Gorontalo language called patali) some menus show buyers and sellers transact.



### 3.1 Home Page E-market view

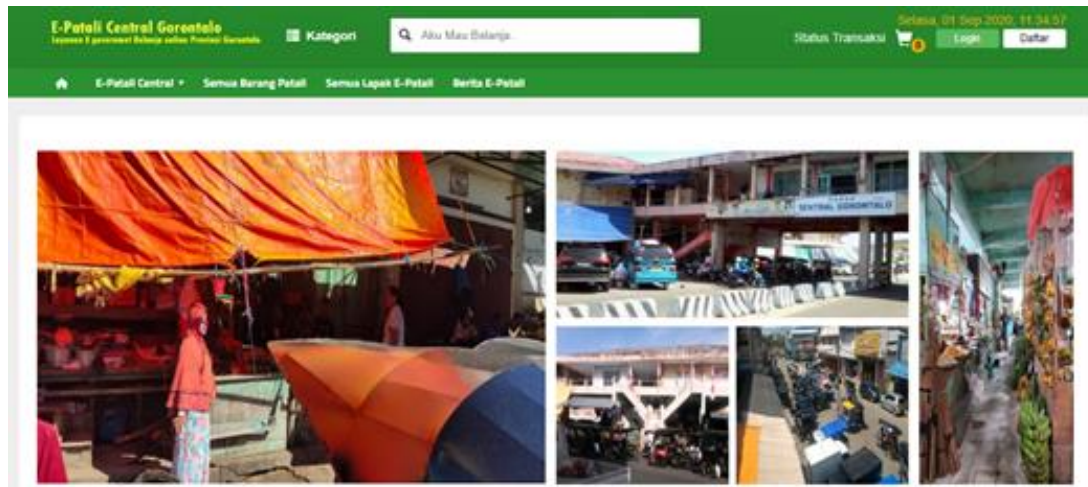


Figure 5. Home page e-market view (a)



Figure 6. Home page e-market view (b)

In the E-market Homepage View (e-patali), sections (a) and (b) are the initial menu views that can be seen by both admins, buyers, and sellers, there are images of activities taking place in the Central market (a), and there are also ingredients and food sold (b).

### 3.1 E-Patali Central Menu View



Figure 7. E-patali Central menu view

Figure 7 is a menu that buyers can access to see the ingredients and food sold in the central market. If a potential buyer decides to buy, then the buyer must first log in to the Application.

### 3.3 E-Patali Category View



Figure 8. E-Patali Category View

Figure 8 Is a category view of goods that can be purchased; buyers can choose the goods provided such as Accessories, women's and men's clothing, music and pro audio tools, Bags, suitcases and travel, spices, vegetables and fruits, fish, shrimp, chicken, and meat as well as shoes and sandals.

### 3.4 E-Patali sub-category view

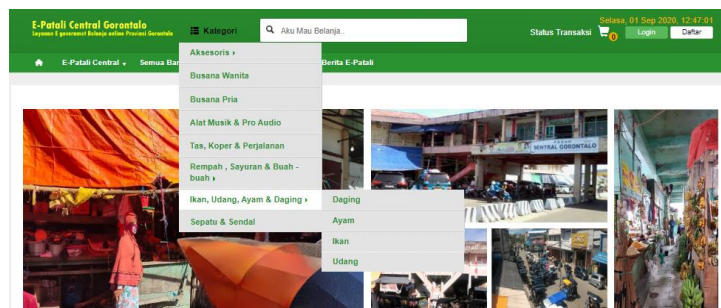


Figure 9. E-Patali Sub-category view



In the Category menu in the image above, a subcategory makes it easy for shoppers to select precisely the desired item.

### 3.5 E-Patali Search View



Figure 10. Search View

This feature is made to make it easier for shoppers to search for the items they want. Suppose the buyer has difficulty choosing a category to get the desired ingredients and food. This menu is placed at the top of the center to make it easier for buyers to see.

### 3.6 Display Tracking Orders Cash on Delivery

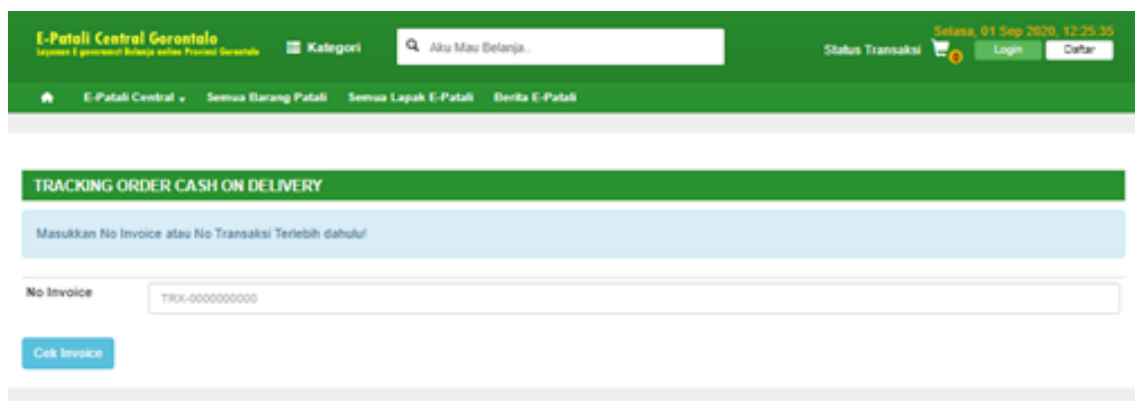


Figure 11. Display Tracking Orders Cash on Delivery

This menu is provided for buyers when making transactions. Buyers can track the products that have been ordered. This menu will be displayed the name and mobile number of the courier who delivers the ordered goods.

This menu is also integrated with the Application provided by the Gorontalo city government, where the E-Patali application will be connected with a delivery/courier that delivers grocery goods with good quality and guaranteed materials.

### 3.7 Payment confirmation display

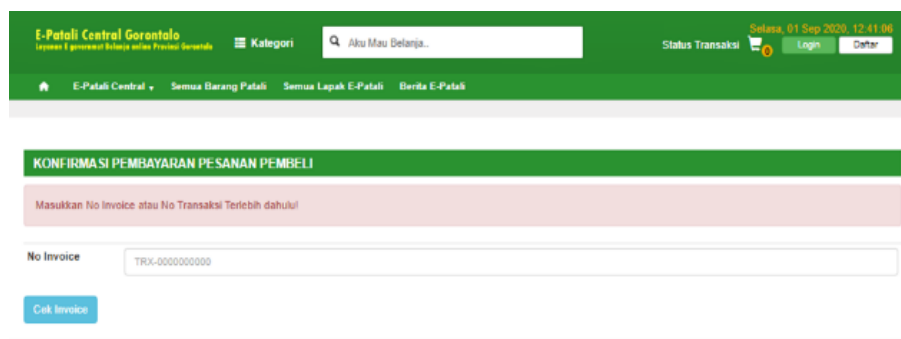


Figure 12. Payment confirmation display

The menu in the picture above contains the confirmation of payment of orders that the buyer has made. After selecting the groceries or backs purchased from the Website, the buyer's next step will be to make a payment. Proof if the transaction is successful is that the buyer has met this menu and reconfirm confirmed the selected item.

### 3.8 Buyer Registration Menu

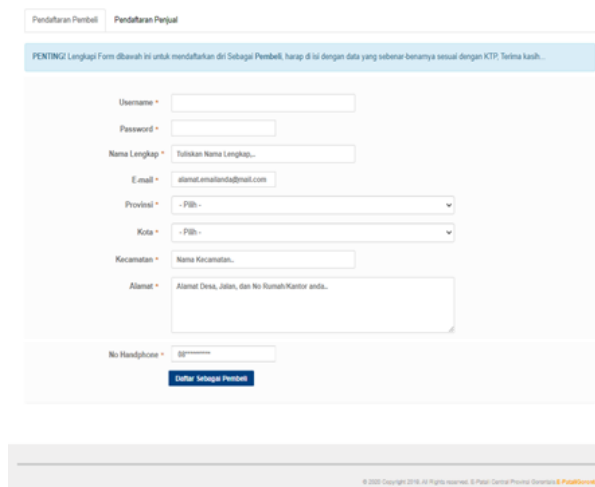


Figure 13. Buyer Registration Menu

Figure 13 is the buyer registration menu. On the e-market application, the buyer is made accessible to see the desired goods without registering first. However, when deciding to buy, the buyer must register the buyer to deliver the goods to the intended address.

The Application of e-patali (e-market) in the central market of Gorontalo city facilitates transactions between sellers and buyers. At a time of modern marketization, traditional markets can compete by making traditional markets, in this case, the Central Market of Gorontalo, into a digital market.

This e-market application not only facilitates buyers and sellers but also helps the government in the pandemic today. Previously, the government had launched the patali shopping point (PSP) application on March 23, 2020[8]. This research was conducted so that researchers included PSP in the Central market e-patali Application in the buyer's section of the order will be integrated on PSP.

PSP itself is a booking made by the buyer through the PSP operator What is Up app and delivered using an online motorcycle taxi. In the E-patali Application, the buyer is connected to the PSP at the time of ordering.

#### 4. CONCLUSION

Based on the results of research that has been done after the e-market application can help buyers and sellers can interact with each other online without being hindered by distance and time. Especially now in Indonesia, especially in Gorontalo province is being hit by pandemic covid 19, all affected without exception. When this study was completed, the pandemic was still a problem that could not be solved. E-market application is connected to Whats up app provided previously by Gorontalo city government (government) so that people can shop without worrying.

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