

WEB-Based Design of E-Commerce for Small and Medium Enterprises in Bengabing Village

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Abstract

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The development of UMKM has been influenced by the development of information technology and information systems. E-Commerce is one of the technologies that supports the development of UMKM and trade today. The design of this E-Commerce application is designed and built using the waterfall development model. This study aims to develop a sales system for UMKM using information technology and information systems such as E-Commerce. E-Commerce technology is designed and built using website-based applications, making it easier for UMKM users and members to promote UMKM products and their businesses. The main target of using this technology is the UMKM in Bengabing Village, Pegajahan District. Users of this application are administrators who have full rights to application processing and application data, in terms of entering product data. It is hoped that the application of this E-Commerce application can be a medium for developing sales and marketing of UMKM products in Bengabing Village. Users of this application are administrators who have full rights to application processing and application data, in terms of entering product data. It is hoped that the application of this E-Commerce application can be a medium for developing sales and marketing of UMKM products in Bengabing Village. It is hoped that the application of this E-Commerce application can be a medium for developing sales and marketing of UMKM products in Bengabing Village.

Keywords: UMKM, E-Commerce, Information Technology, Information Systems.

1. Introduction

The development of Information Technology is a necessity that must be owned by an organization to improve service quality[1]. Utilization of information technology must be balanced with the implementation of information systems[2]. Information Technology and Information Systems are two fields that are side by side in the delivery of information for an organization[3][4]. Utilization of information technology and information systems, can help an organization achieve its goals to the fullest[5][6]. This is evidenced by the growing role of information technology and information systems, among organizations. For example, developing Village UMKM with online sales media or E-Commerce[5][7].Based on Law Number 20 of 2008, regarding UMKM (Small and Micro Medium Enterprises) are productive businesses owned by individuals or individual business entities that meet the

criteria for micro-enterprises as stipulated in the Law.[8]. Therefore, this is what makes the UMKM in Bengabang Village, Pegajahan District, want to improve the MSME sales system with online media such as E-Commerce. E-Commerce itself is a technology that is a basic need for every organization engaged in trade[9][10]. E-Commerce is a way for consumers to be able to buy the desired goods by utilizing internet technology and the use of E-Commerce itself can be felt by consumers as well as by business people.[11][12].

2. Method

The steps taken in this data collection method are:

1. Field Research (Field Research).
2. Observation (Observation).
3. Sample (Sampling).
4. Data analysis with descriptive qualitative
5. Make comparisons between theory and practice in the field.

The hardware and software required are:

1. Hardware (Hardware)
 - a. Hard disk
 - b. RAM
 - c. Processor
 - d. Laptop
2. Software (Software)
 - a. Operating system using windows
 - b. Database "MySQL phpMyAdmin"
 - c. Browsers "Internet Explorer, Mozilla. Operas, etc."
 - d. Servers "XAMPP"

3.Results and Discussion

3.1 Research design

The steps are as follows:

1. Sitemap (Navigation)

Sitemap is one of the tools for webmasters that makes it easier to identify sitemaps on websites[13][14]. This will make it easier to browse and reach the pages in it.

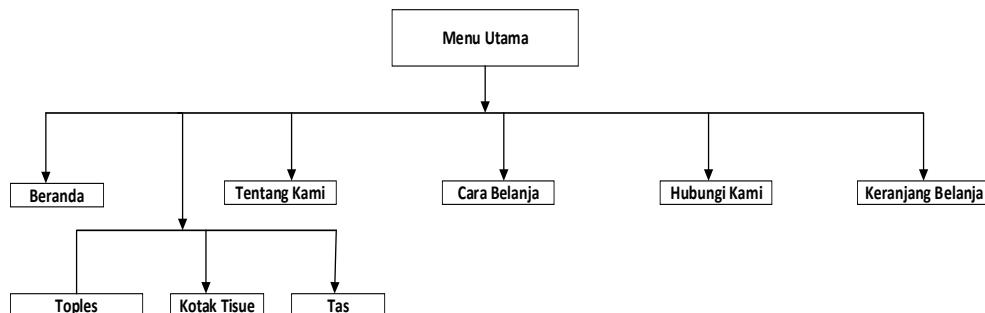


Image 1.Sitemap (Navigation)

2. Website Design

The purpose of website design is to create different websites or documents and applications on a web server that will display interactive interface feature content to end users in the form of web pages.[15][16].

a. Main Menu Display Design

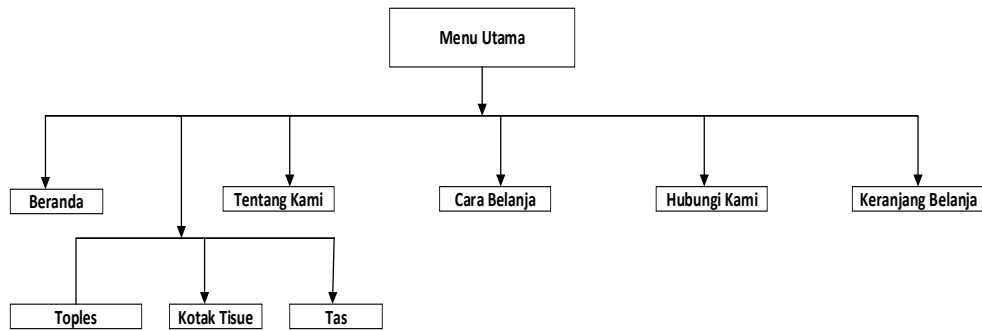


Figure 2. Main Menu Display

Display Main Menu contains the things that will be displayed on the website page. Where the pages that will be displayed include: Home, About Us, How to Shop, Contact Us and Shopping Cart. In addition, the main menu will also display the products available at Bengabing SMEs such as: Toples, Tissue Boxes, and Bags, which are equipped with a price list and images made using animation. This is done so that the appearance of the MSME web looks more attractive. And finally, the web page will also display the products in the Bengabing UMKM.

b. Main Menu Hierarchy

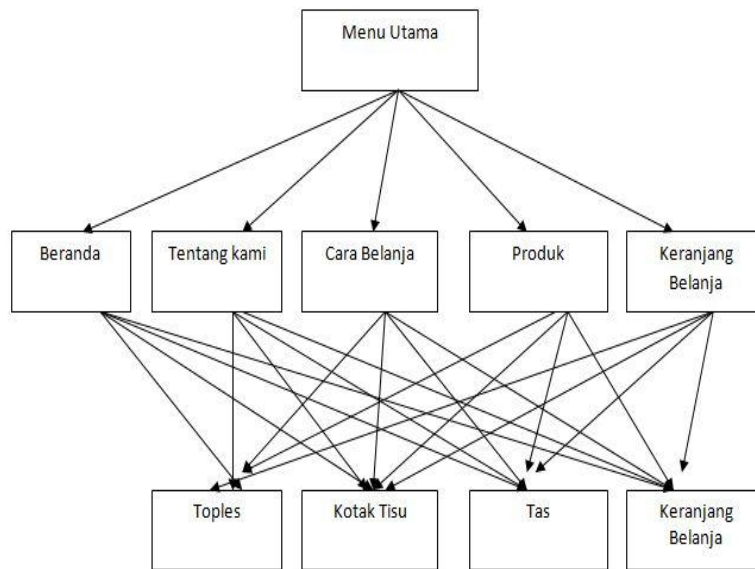


Figure 3. Menu Functional Hierarchy on Sales website

c. Admin Hierarchy

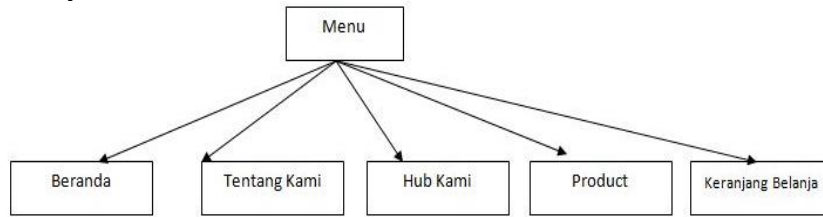


Figure 4. Admin Functional Hierarchy

d. Product Hierarchy

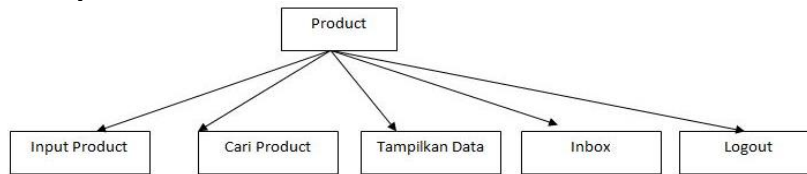


Figure 5. Product Hierarchy

e. Category Hierarchy

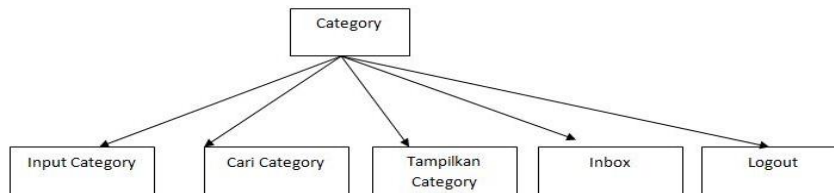


Figure 6. Functional hierarchy of categories

3. Design Database

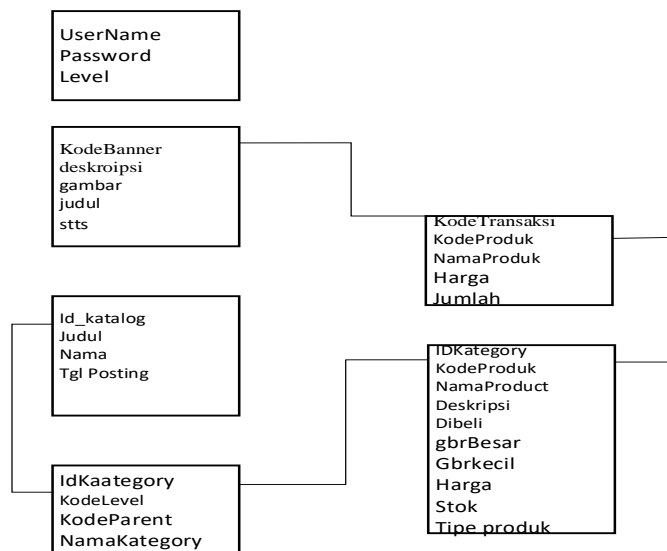


Figure 7. Relations between Tables

4. Flowchart

The system design is described by a flowchart, which is a breakdown of the system based on the designed Bengabing MSME website.

a. Product Data Form Flowchart

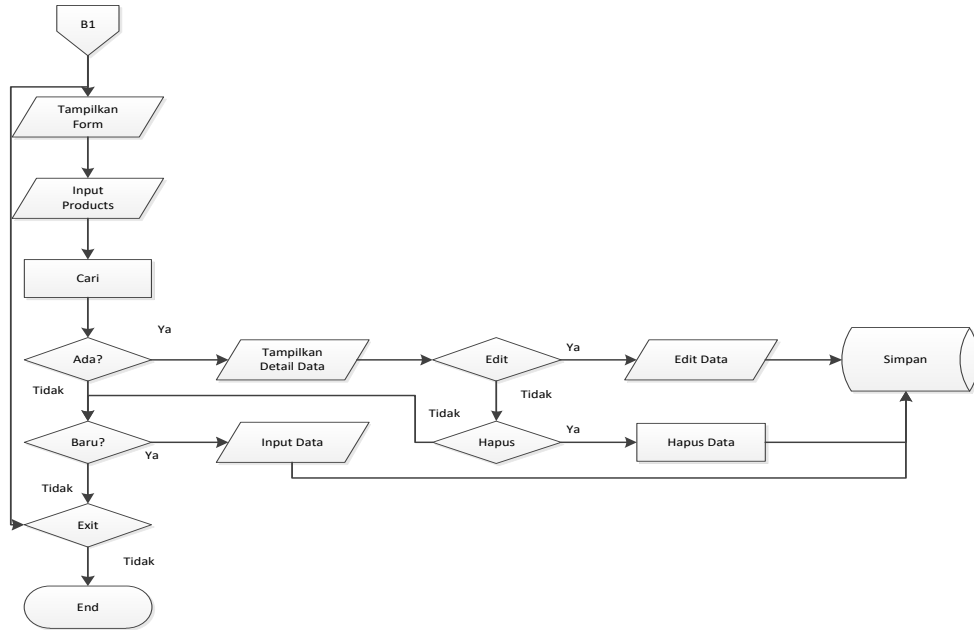


Figure 8. Product Data Form Flowchart

b. Category Data Form Flowchart

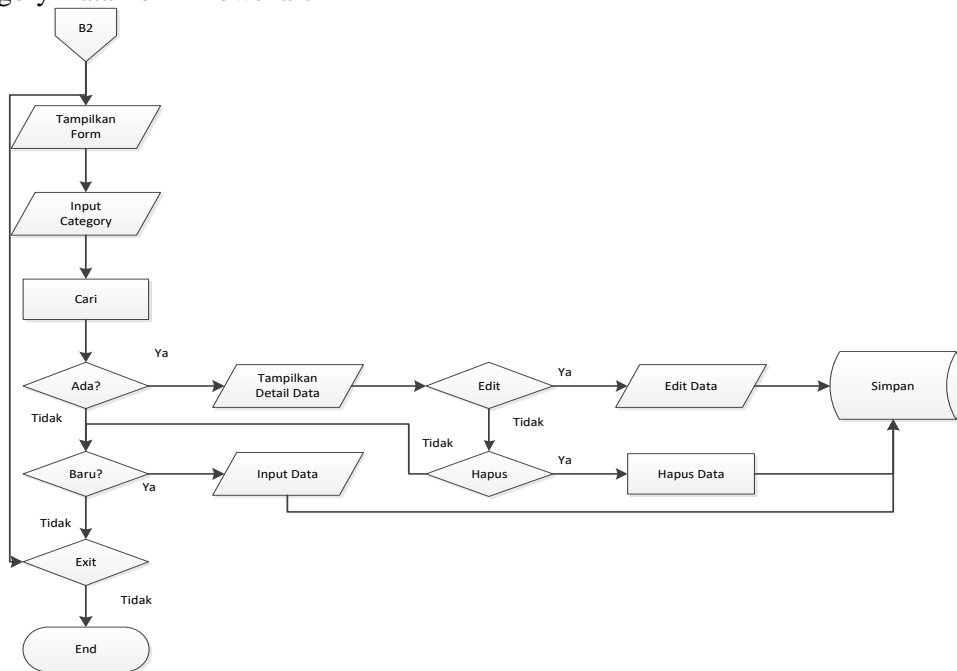


Figure 9. Category Flowchart Form Data

c. Flowchart Form Data Inbox

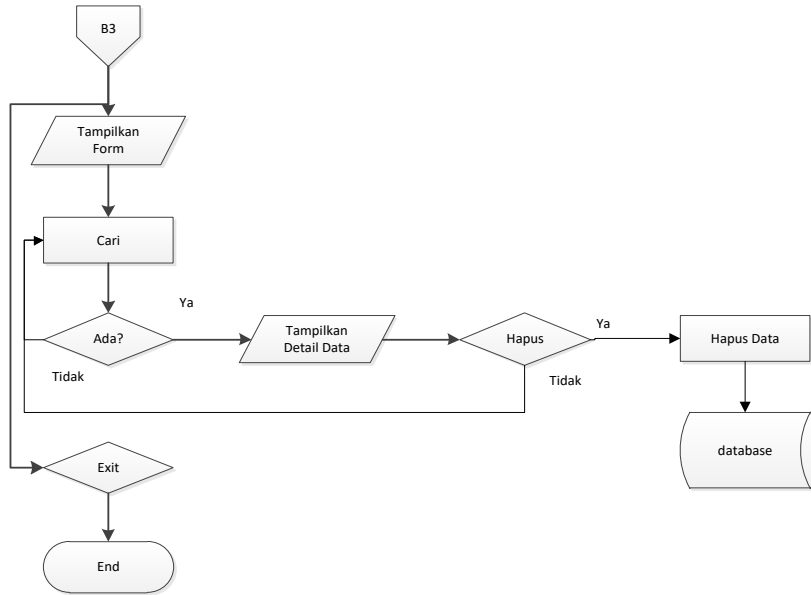


Figure 10. Flowchart of Data Inbox Form

3.2 Testing Stage

The Main Menu (home) display is a display that informs about the Bengabing UMKM. The following are the results of the display of the application program that will be designed:

1. Main Menu Display (Home)

The Main Menu (Home) display is a display that reports about the business of the Bengabing MSME starting from the history of its establishment and product information contained in the Bengabing MSME. With the Home display, visitors will see information about various products and various other types of products.



Figure 11. Home Display

2. Product Display

Display This product contains various types jars, bags and tissue boxes produced by Bengabing SMEs. It is from this product that consumers get information quickly on the names and prices of the products found in these SMEs.



Figure 12. Product Display

This display shows the types of products produced, which are found in the Bengabing SMEs, so that consumers can distinguish the types of products that can be selected. From the various types of products sold at Bengabing SMEs, several types of products that are sold are not only jars, but there are other products available according to consumer needs. While the products that are sold are divided into 2 types of products, namely for Jars and Bags and Tissue Boxes.

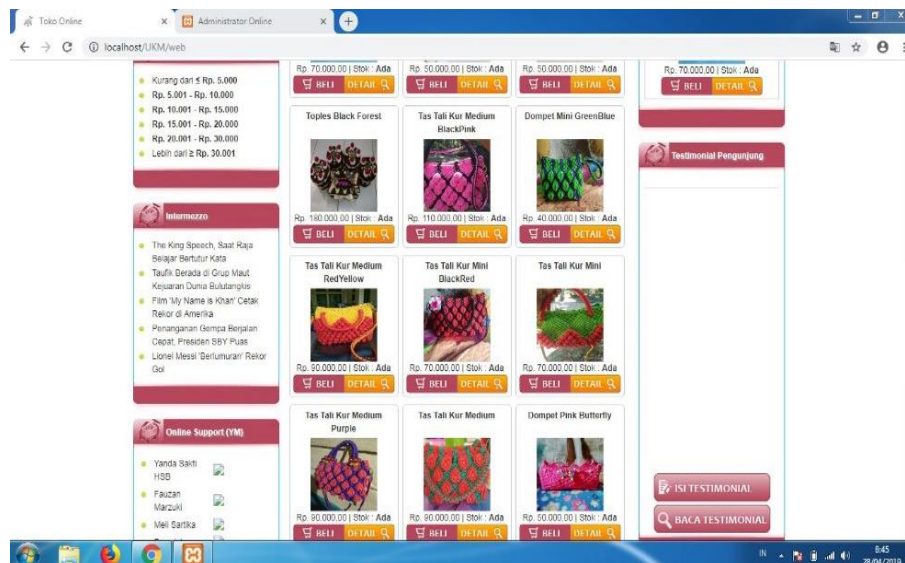


Figure 13. Display of Bag product holder

3. Display About Us

In this section there is information about the SMEs in Bengabing Village itself. Where in this section there are things about the establishment of this Bengabing MSME.

6. View the contents of Chat and Testimonials

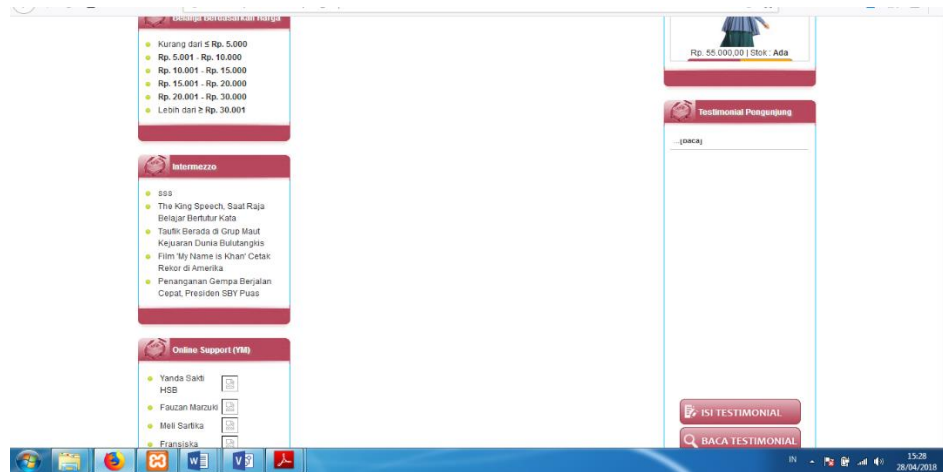


Figure 17. Display of Testimonials

7. Shopping Cart Display

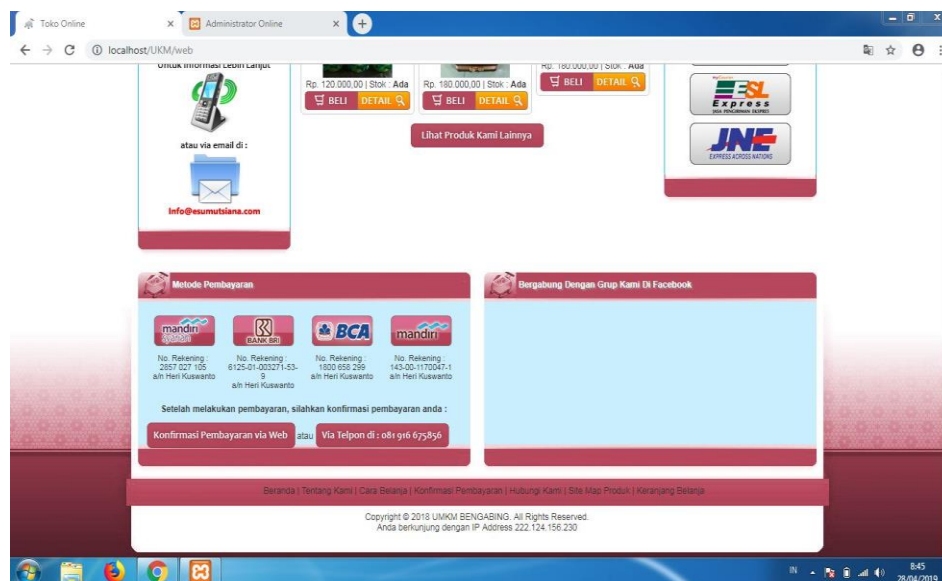


Figure 18. Shopping Cart Display

4. Conclusion

Based on the description of the chapter and the results of research in the field, it can be concluded that:

1. Web design for e-commerce sales of Bengabing MSME products online based on webcan be built using the PHP Programming Language which is equipped with a database built with MySQL, so that the website that is built is more attractive and dynamic.

2. With the implementation of web-based e-commerce applications in the marketing of Bengabing MSME products, customers can get information about MSME products from the internet without having to come directly, making it easier for consumers to make transactions.

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