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Implementation of Information System in Indonesian Traditional Beverage Businesses

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ABSTRACTS

This study aims to apply the information system to every business owner who can inform businesses beverage container business through information technology. The function of this information system's application is for business owners and customers interested in buying products business. This study is an application of information systems in the Indonesian Traditional Beverage Business. This study's method was conducted using qualitative descriptive writing method of collecting data through literature study and observation to the growing beverage business owners. Information system development is conducted using the waterfall method. The results of this study show an overview of how the information system is expected by the business owner as well as the beverage business impact that can provide the quality of the business product beverage business is being run. The conclusion is that there is a large information container such as a website application applied to the Indonesian traditional beverage business so that website visitors can see, buy, or provide suggestions or comments regarding the already available products

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1. INTRODUCTION

Indonesia is a local cultural heritage with its respective functions included with traditional food and beverage. There are natural ingredients such as ginger, turmeric, and others (Soegoto, *et al.*, 2018). The information system is part of the information technology that includes all devices such as computers, software, internet, databases, communications systems, mobile devices, and others. The information system is very thick with the actor who plays as well as with other organizational (Alter, S. 2013). Therefore, the application of information systems in the traditional Indonesian beverage business is needed as a container of information for many people.

The majority of visitors come to Indonesia for the first time, as much as (78%) know about food and drink Indonesia before they come to Indonesia. The tourists know Indonesian culture because getting information directly from friends, family, or other woods is more aware than hearing it straight from newspapers and articles about Indonesia's food and beverage (Wijaya, *et al.*, 2016). Indonesian food and drink are described as a tree because of Indonesia's diversity of ethnic groups and cultures. This point can be illustrated by a matrix of how much Indonesian food and drink is found in some areas that are frequently or rarely visited (Situngkir, *et al.*, 2015). Based on data from the Department of Industry and Trade of East Java in 2007, there were 617 more SMEs processed food and beverage products in Indonesia. The data were selected from the three counties or cities that have a majority of UMKM, namely Surabaya, Malang, and Kediri (Wanto, H. S. 2012). The research in Jakarta on Indonesia's processed food and beverages is divided into six regions: Jakarta Central, North, South, East, West, and Kepualan Seribu. Only five cities have been invested by the international brands of fast-food restaurants (Widaningrum, *et al.*, 2018). The system design of expert traditional drink recipes implementation Case-Based Reasoning is a Web-based application. The user can see complete drink recipe information as well as search for drink recipes by inputting ingredients. The system will search the data in the database beverage drinks menu (Darmawan, R., & Wibisono, S. 2019). Several sectors of the Indonesian processed food and beverage industry are experiencing high growth. This industry's existence is enormous opportunities; the future food industry and beverage Indonesia become a mainstay for Indonesia's economic progress (Widodo, S. 2019). Preserving agricultural products by fermentation has been carried out since the early seventeenth century, especially for tempe. Local and traditional wisdom shows spontaneous fermentation, mostly involving mixed cultures, including lactic acid bacteria, conducting biopreservation of perishable agricultural products (Surono, I. S. 2016).

The purpose of this paper is for beverage business owners to be able to monitor the process of providing information about their business and customers who will see and buy beverage products. The method used for this paper is the observation and literature study method system development used the waterfall (Van Casteren, W. 2017).

2. METHOD

In this research, the method used is literature study and observation, by

visiting the beverage business place, observing and collecting data from business owners. In addition, Information system development is conducted using the waterfall method (see Fig. 1).

3. RESULTS AND DISCUSSION

In this study, we created a system where the system can be implemented into a web application that serves as a content provider of Indonesian traditional beverage product introductions.

3.1. Procedure

The procedure is the initial stage in the manufacture of an information system implemented into a web application. Where the procedure contains an explanation of the system flow web will be created.

1. The user enters the traditional drinks web application's home page to see explanations and pictures of traditional Indonesian drinks.

2. After that user can see the menus available in the web application that consists of a homepage, beverage products, and admin contacts.

3. Then the user can click on the menu of beverage products that contain traditional drinks originating from Indonesia.

4. Users can view each traditional Indonesian beverage product's details by clicking on one of the images available on that page.

5. Then the user will go to a page that contains details of the drinks he chose

6. After that, the user can select the contact menu containing the admin's bio and contacts for the web application.

7. On this page, the user can also provide feedback and rating suggestions to the web application admin.

8. After that, the admin can update and add data to the list of traditional Indonesian beverages.

3.2. Flow map

Flowmap is a depiction of an ongoing activity that shows the movement of data that serves as an explanation in a flow of procedures. Flowmap in the form of images that are linked to each other so that it becomes an information system that functions as an overview of the programmer to create the web (see Fig. 2).

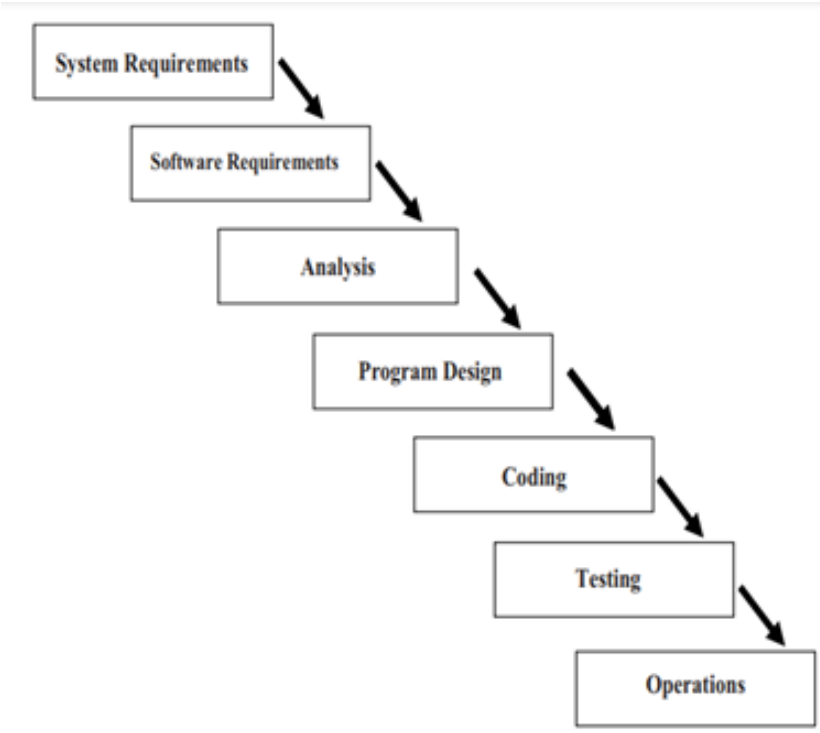

Fig. 1. The Waterfall Model

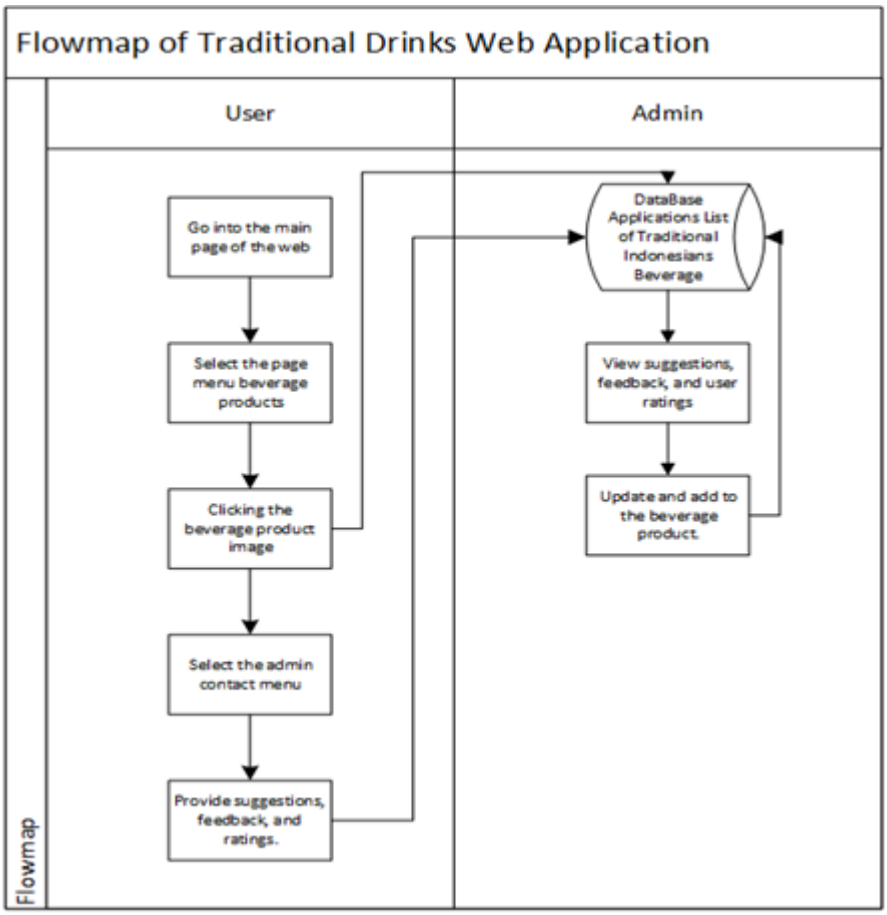

Fig. 2. Flowmap

3.3. Context Diagram

Diagram Context is the design of functions consisting of several diagrams that are used to see the correspondence between the program and the code created. Diagram context can also be referred to as the earliest diagram or Data Flow Diagram (DFD) Level 0 and will be continued at DFD level 1 which will be more detailed about the flow diagram (see Fig. 3).

3.4. DFD Level 1

A Data Flow Diagram (DFD) is a data flow used in system design. In this case, there are three symbols; entities, process, and file/database. It also has two entities are User and Admin. In addition, the systems also have one file/database and one process namely Main Menu. Everything will be interconnected and the systems will input data into the existing file or database (see Fig. 4).

Fig. 3. Context Diagram

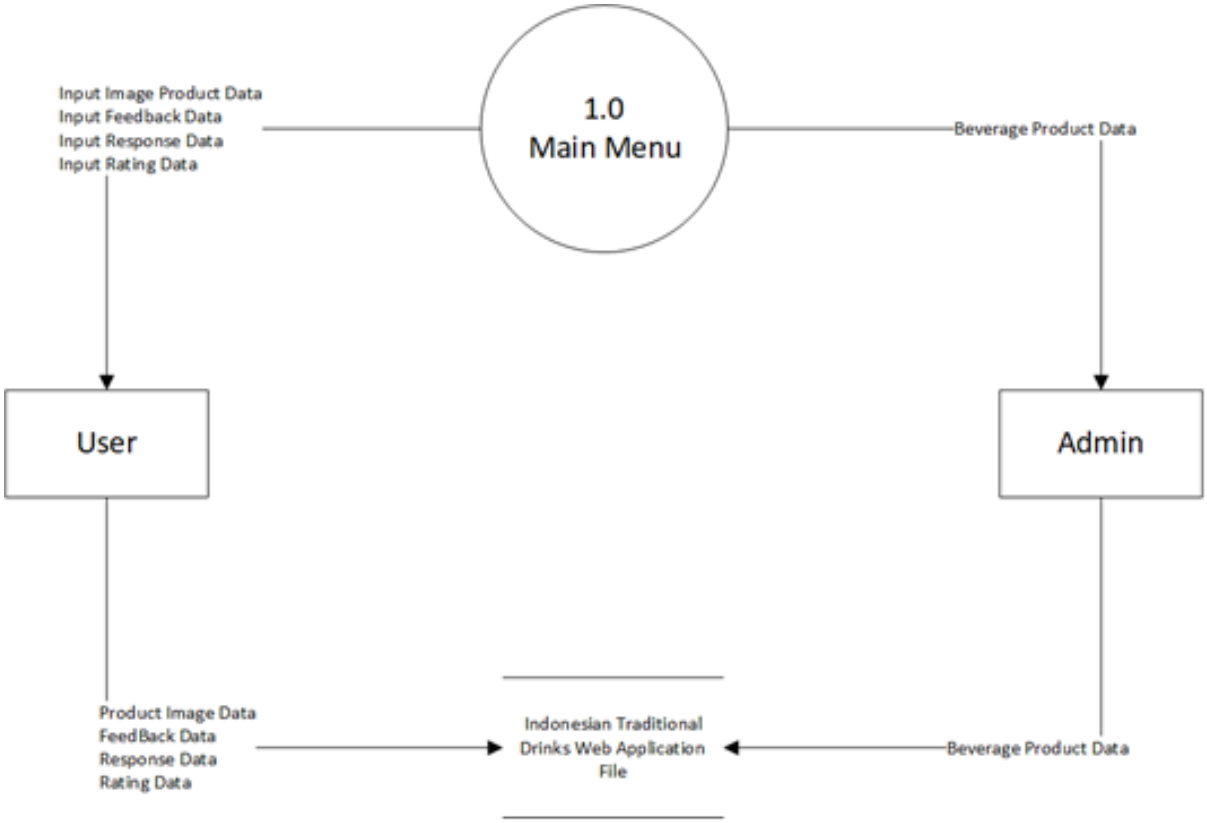

Fig. 4. DFD Level 1

3.5. Mock Up

A Mockup is early in the website's design development, where the mockup serves as a visual design made to resemble the original form of the website to be built. Therefore, programmers have a design concept in building a website. Where in making this website design mockup consists of five website pages. In addition, each page has its function.

Home Page

Fig. 5 shows a Home page. In this page, all of the information will be presented. There are three sub-menus on the Home page, namely Home, Product, and Contact.

Product Page

Fig. 6 shows the Product page. On this page, all of the information regarding the products will be presented. This page also shows the list of the products.

Product Detail Page

Fig. 7 shows a Product Detail page. On this page, the information regarding the product details will be presented.

Contact

Fig. 8 shows the Contact page. On this page, it is provided a direct contact such as Whatsapp or Email of the contact person. It is presented for the user to contact the Whatsapp number or Email listed if they are interested in the products.

Feedback and Rating Page

Fig. 9 shows a Feedback and Rating page. On this page, the user can give their feedbacks and ratings regarding the products and website.

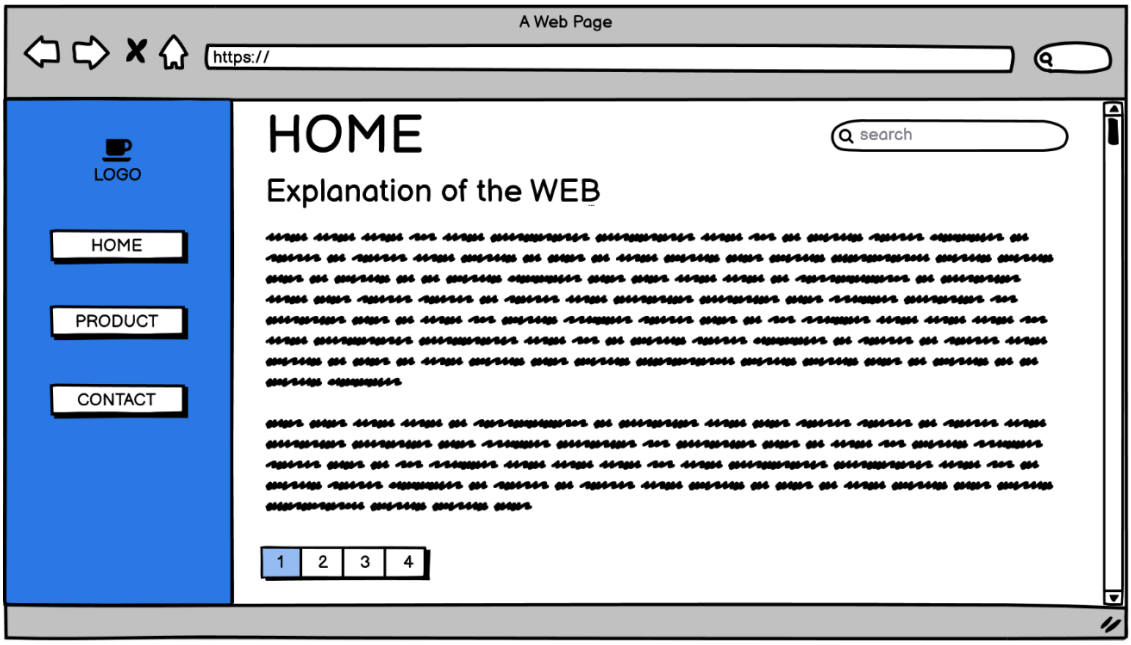

Fig. 5. Home Page

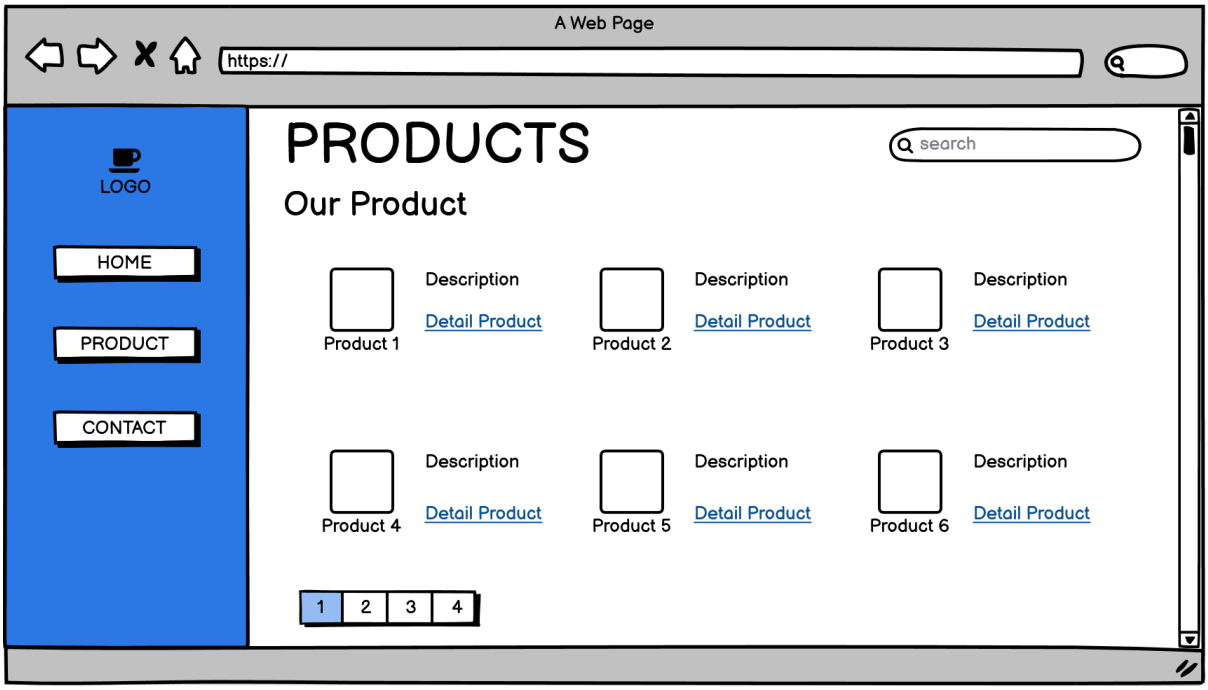

Fig. 6. Products Page

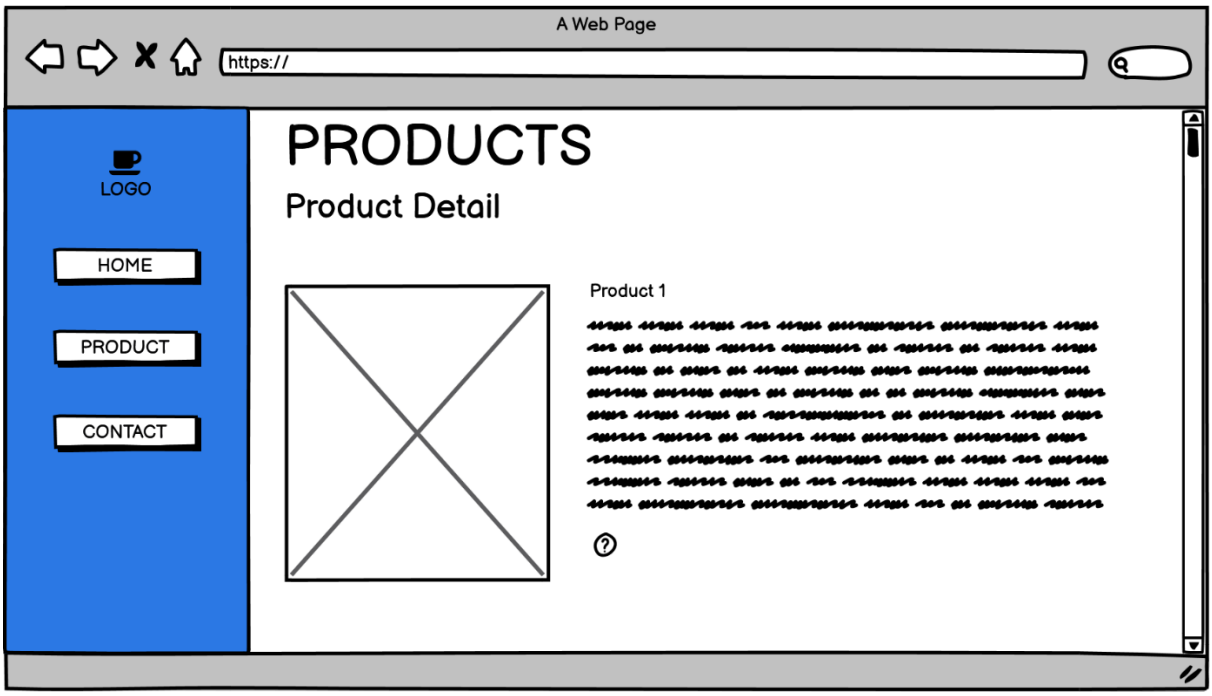

Fig. 7. Products Detail Page

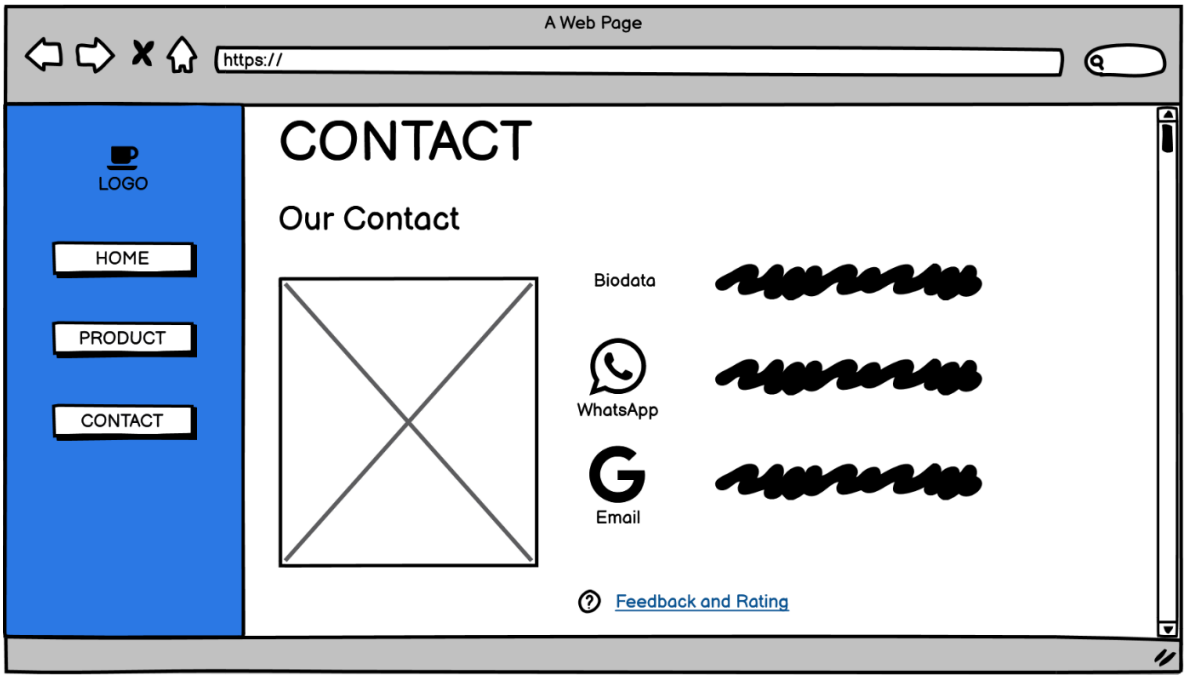

Fig. 8. Contact Page

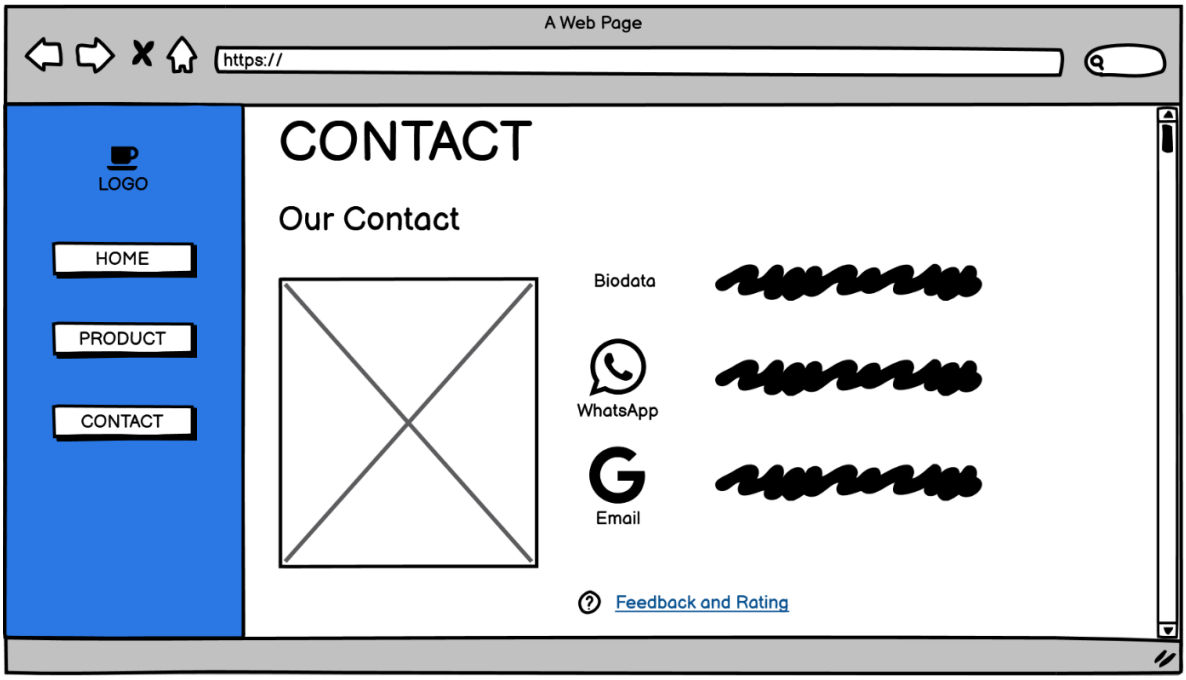

Fig. 9. Feedback and Rating Page

4. CONCLUSION

The conclusion from the results obtained is that a platform such as a website application has been applied to the Indonesian traditional beverage business. It is applied so that website visitors can see, buy, or provide suggestions or comments regarding the already available products.

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