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Journal of Engineering Science and Technology has beer selected for coverage in Clarivate Analytics products and services.

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ISSN: 1823-4690

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Volume 17, Issue 6, December 2022

Pages 3726 – 4504

Journal of Engineering Science and Technology
Vol. 17, No. 6 (2022) 3956 - 3972

WEBSITE-BASED CATERING SERVICE INFORMATION SYSTEM

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Abstract

Physical distancing is the new government policy during the COVID-19 pandemic, and it has greatly affected Erna Sari Catering. One of Erna Sari Catering's marketing strategy solutions during the COVID-19 Pandemic is to carry out all business processes using electronic technology, particularly information technology. The purpose of this research is to develop marketing strategies and job vacancies through digital services. This research was conducted by implementing website-based digital marketing in order to assist Erna Sari Catering's business in developing and excelling in digital technology, as well as to assist the government in reducing unemployment caused by the COVID-19 Pandemic. The use of digital marketing for business services and job vacancies is expected to be a way to speed up recovery and economic growth for the Indonesian people after the COVID-19 Pandemic.

Keywords: Business services, Digital marketing, Job vacancies, Strategy, Website.

1. Introduction

Physical distancing, known as Pembatasan sosial berskala besar in Indonesia, is one of the government policies used to combat the spread of the Corona Virus [1]. The existence of these restrictions greatly affects all types of businesses. Many businesses are forced to close due to a lack of customers, and workers are laid off due to business owners' inability to pay wages [2]. Digital entrepreneurs with their new ways of doing business have made a big impact around the world, especially in the last decade [3]. Digitization is not reduced to a new development in entrepreneurship [4]. Digital marketing technology is a solution that partners require in order to market their products through digital media, such as social media. Social media is a website-based method of marketing a product in which partners can market content as a product in the form of web posts and as web pages in the form of images, photos, and videos [5].

According to a 2017 survey conducted by the Association of Internet Service Providers in 2017, it is known that Internet users in Indonesia reached 5.68% of the total population of Indonesia, or 262 million people. Furthermore, Internet use has increased threefold in the last eight years, registered in business, business sector, and the economy, up to 37.82% - 51% of internet users who search for information about products and services also find information that helps their work. This extraordinary number can be used as an indicator for entrepreneurs who are adopting a digital approach, products, and services [6]. The effects of the COVID-19 pandemic are increasingly rampant for web providers in Indonesia. This is important to be used as research material. Erna Sari Catering is one of the MSMEs affected by the COVID-19 pandemic. Erna Sari Catering has not realized the importance of information technology because she is unfamiliar with the IT field, such as how to create content to market their products where buyers can order directly from home. With the 2021 Scientific Research Grant from RISTEKBUD DIKTI through LPDP, it can help the government in overcoming economic problems at Erna Sari Catering through the creation of 2 application models, namely digital marketing strategies and digital job vacancies.

In the digital era, everyone has access to the Internet. This is one of the website-based digital marketing strategies. Websites are used to present marketing messages through page views and advertisements to reach many people in a short time [7]. Technological advancement in the twenty-first century have resulted in the use of the Internet for commercial purposes [8].

Justitia et al. [9] explained that with MSME Go Digital that business owners can strengthen the value proposition of their products and services offered, identify customer segments, reach wider customers, as well as save resources.

Aryanto and Victor [10] explained that the use of digital marketing in Photography Business Services using WordPress as a platform can help increase brand awareness/exposure to the public and potential service users if it is carried out on a scheduled and regular basis, as well as attracting and targeting buyers.

Rapitasari [11] used an application-based descriptive approach explained that application-based digital marketing is a strategy to increase customer satisfaction. Further, Hanim et al. [12] explained that the development of digital-based MSMEs is an alternative to saving the MSME sector during the COVID-19 pandemic. The service management information system makes wedding planners at Nana

Wedding Organizer Madiun using the waterfall and web-based DFD can increase the promotion area, make it easier for consumers to make ordering transactions, and make it easier for admins in data management [13].

This research is different from previous researches. The novelty of this research is that there are two functions in the development of digital services, The first is to provide marketing services and to be implemented in a mobile phone.

This research is necessary to help the government program to reduce unemployment caused by the COVID-19 pandemic because it has an impact on production and all community activities, including Erna Sari Catering, resulting in a decrease in business income or even no income/profit [14].

This research was funded by the Ministry of Education and Culture, Research and Technology from the 2021 Scientific Research Program Grant with the Entrepreneurship Research Grant Scheme which aims to provide product Marketing Service Applications to increase business at Erna Sari Catering business in marketing products/services in the form of images, photos or videos and provide job opportunities for people who are looking for work through the application of content creator job information services.

2. Methods

The method used in This research used a website-based qualitative description method with literature studies, field surveys, interviews, and questions and answers through a structured approach, a systematic application using data flow diagrams, mapping of lecturer and student participation in partnerships through collaboration with partner needs, and implementation of learning plans through job application makers. Content and app makers to enhance product marketing through images, videos, or photos. The partner for this research is CV Erna Sari Catering located in Pungkur Loji Village no. 23, Cicalengka Kulon, Waluya, Kec. Cicalengka, Bandung Regency, West Java Postal Code 0395 is a catering business and is engaged in food service, weddings, and event organization.

Based on the survey and interview results, it is known that Erna Sari Catering requires 2 service system functions, namely a web system created for Erna Sari Catering to show products or services in the form of images, videos, or photos for digital marketing and the second function is a job vacancy information service. These two functions are integrated centrally through a digital application.

This Integration System is designed using the SDLC (Software Development Life Cycle) method. One part of the SDLC method is the SDLC Waterfall. The Waterfall method is the earliest SDLC approach used for software development [15]. The sequence in the Waterfall Method is a series that starts from the process of planning, analysis, design, and implementation of the system [16].

The method used is carried out with a systematic approach, starting from the system requirements stage and then moving on to the analysis, design, coding, testing/verification, and maintenance stages. The steps that are passed must be completed one by one (we cannot jump to the next stage) and run sequentially. Therefore, it is called a waterfall (Fig. 1).

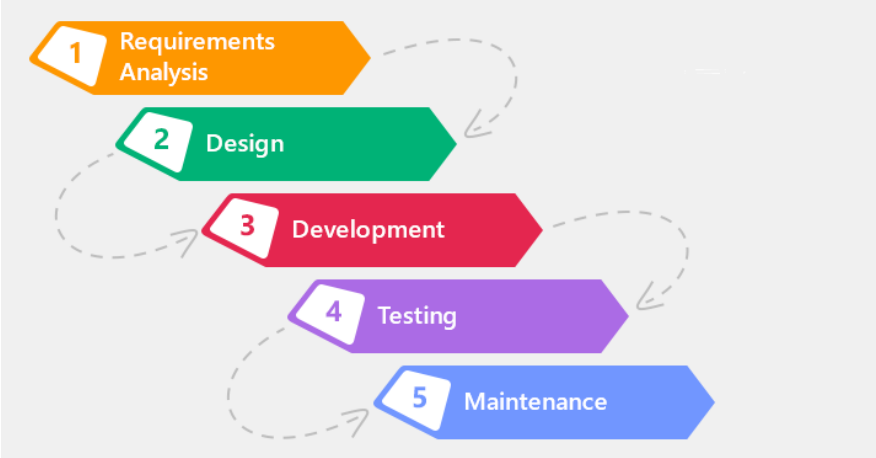

Fig. 1. Metode SDLC: *Waterfall model* [17].

2.1. Stages in performing the waterfall method

a. Requirement analysis

Before doing software development, a developer must know and understand the needs of information for software. This information collection method can be obtained in various ways including, discussion, observation, survey, interview, and so on. The information obtained is then processed and analysed so that complete data or information is obtained regarding the specifications of user needs for the software to be developed.

b. System and Software Design

Information about the requirements specification from the requirements analysis stage is then analysed at this stage and then implemented in the development design. The design is carried out to help to provide a complete picture of what must be done [18]. This stage will also help developers to prepare hardware requirements in making the software system architecture that will be made as a whole.

c. Implementation and Unit Testing

The implementation and unit testing phase are the programming phase. Software development is divided into small modules which will be combined in the next stage. In addition, in this phase, testing and checking of the functionality of the modules that have been made are also carried out, whether they meet the desired criteria or not.

d. Integration and System Testing

After all units or modules that have been developed and tested in the implementation phase are then integrated into the overall system. After the integration process is complete, further inspection and testing of the system as a whole is carried out to identify possible system failures and errors.

e. **Operational** Maintenance

In the last stage of the Waterfall Method, the finished software is operated by the user, and maintenance is carried out. Maintenance allows

developers to make improvements to errors that were not detected in the previous stages [19]. Maintenance includes repairing errors, improving the implementation of the system unit, and upgrading and adjusting the system as needed.

2.2. Use Case Diagram

A case diagram is used to describe the design of CV Erna Sari Catering. Use Case This diagram is used by 2 actors, namely Admin and Consumers. In this case diagram, each actor pays attention to his duties and roles in the information system that is built. For more details, see Fig. 2 and Tables 1 and 2.

Fig. 2. Use case diagram CV. Erna sari catering.

Table 1. Use case diagram description.

No.	Actor	Description
1	Consumer	This consumer actor can log in, register an account or sign up, view menu lists, order food, make payments, view carts, and view stories.
2	Admin	This admin actor can perform user management processes, food category management, food menu management, order management, job vacancies management, view reports

Table 2. Use case diagram description.

No.	Use Case	Description
1	Register	The system displays a list form page for the user.
2	Login	The system displays the login form page for the user.
3	Viewing the food list	The system displays the food list page.
4	Food order	Users can select the food they want to order, and the system will display the food details along with the quantity input form
5	Cart View	The user goes to the cart page to find out the order details, the user will display a basket page containing details of the user's order
6	Payment	The user goes to the payment page for processing transactions with the transaction method and the system will display the personal data form
7	History	The system displays purchase history
8	Change Password	Users can change the old password to a new one
9	Job Vacancies	The system will display the job vacancies information
10	User management	Admin will manage users and customers
11	Food Category Management	Admin manages food menu categories
12	Food Menu Management	Admin manages the food menu
13	Order Management	Admin manages orders from customers
14	Reports	Admin can view and print the reports
15	Job Vacancies	Admin manages the job vacancies information

2.3. Activity Diagram

The following is the CV. Erna Sari Catering's activity diagram (Figs. 3 and 4):

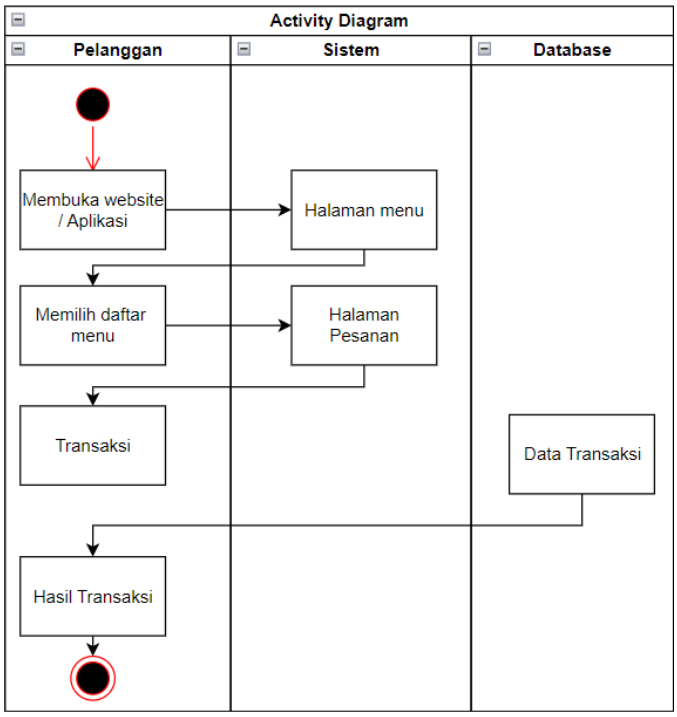

Fig. 3. Activity diagram transactions Manage's admin.

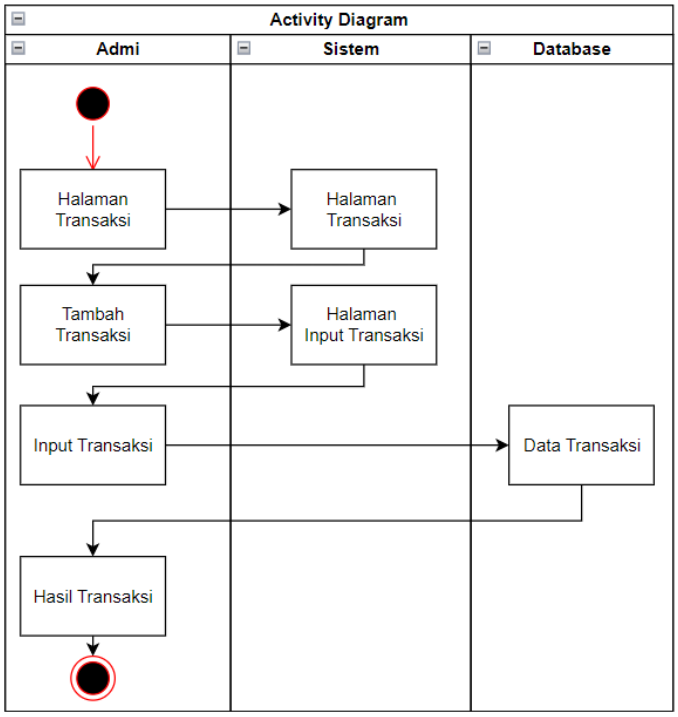

Fig. 4. Activity diagram customer order activity.

3. CV. Erna Sari Catering System Specifications

To ensure the system in the CV. Erna Sari Catering runs optimally, therefore detailed system specifications are needed as information material (Table 3).

Table 3. System specifications.

	Specifications
Web and Mobile Based Application	Laravel dan Web View
Operation System	Windows 10
Mobile Device	Lolipop 5.0
Laravel	9.0
Livewire	2.0

4.Results and Discussion

The results of this study are website-based digital services shown and the user interface and several displays from testing Erna Sari Catering's digital services from the point of view of admins and consumers.

4.1 Application Services for Digital Marketing Strategy

User Interface

User interfaces (UI) are all interactive system components (software or hardware) that provide information and control for users to complete certain tasks with interactive systems [20]. The UI has a function to connect various information between the user and the operating system so that the computer can be used [21]. The following is the interface that is built into the Erna Sari Catering system.

1. **Landing Page**
   This page is the initial view when the website is first opened [22]. Where here customers can see the food menu and start ordering (Fig. 5).

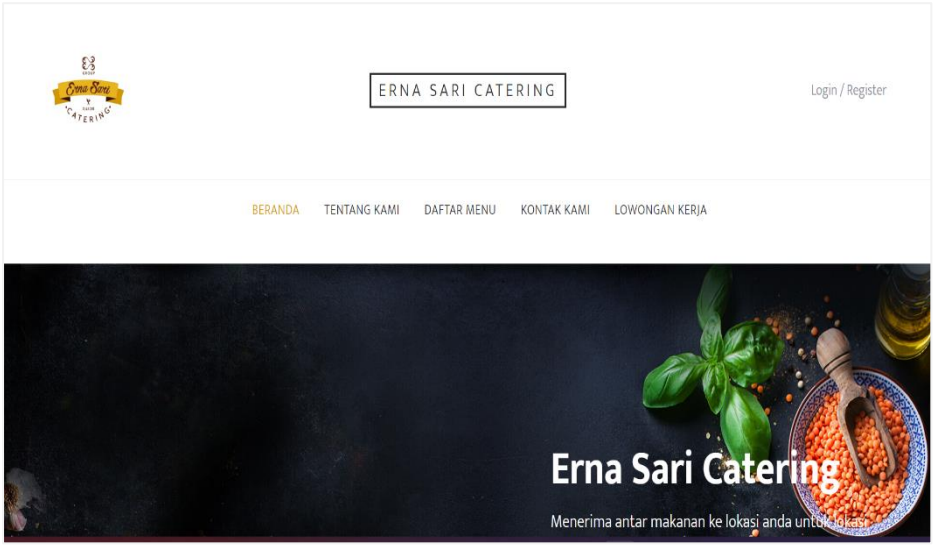

Fig. 5. Landing page.

2. Login Page

The following is the login screen for the Customer and Admin users, which after logging in will be directed to the Customer or Admin page (Fig. 6).

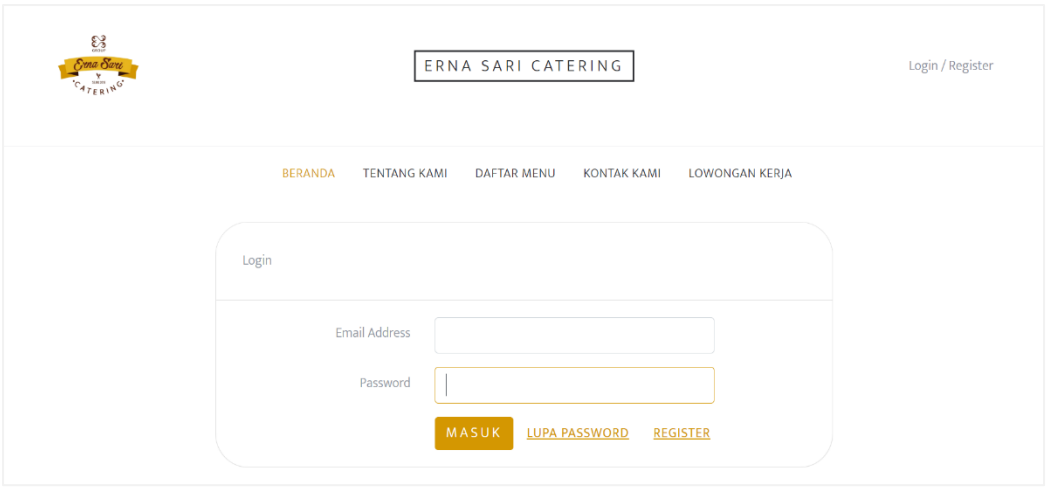

Fig. 6. Login page.

3. Food Menu Page

The following is a Food Menu List page which is divided into several categories such as main menu, unit, and package where customers can choose the available menus (Fig. 7).

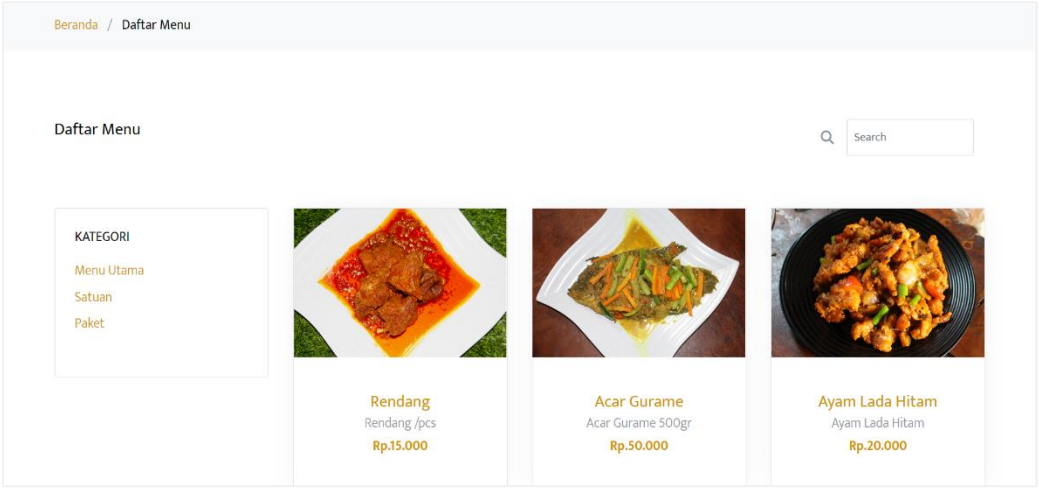

Fig. 7. Food menu list page.

4. Order Page

After the customer selects the food menu to be ordered, the customer will be directed to the following screen where the customer can enter the number of orders selected for the food (Fig. 8).

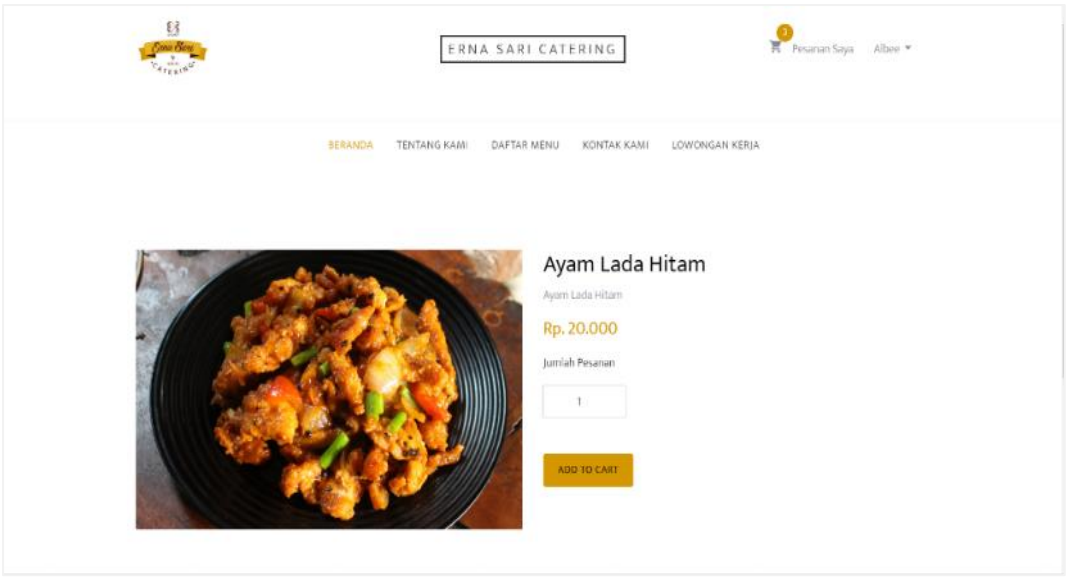

Fig. 8. Food menu order page.

5. **Cart Page**

   On this page, the system accommodates the ordered food menu into the basket. If the customer wants to add a food menu, there is a "Continue shopping" feature to add the food menu that you want to add (Fig. 9).

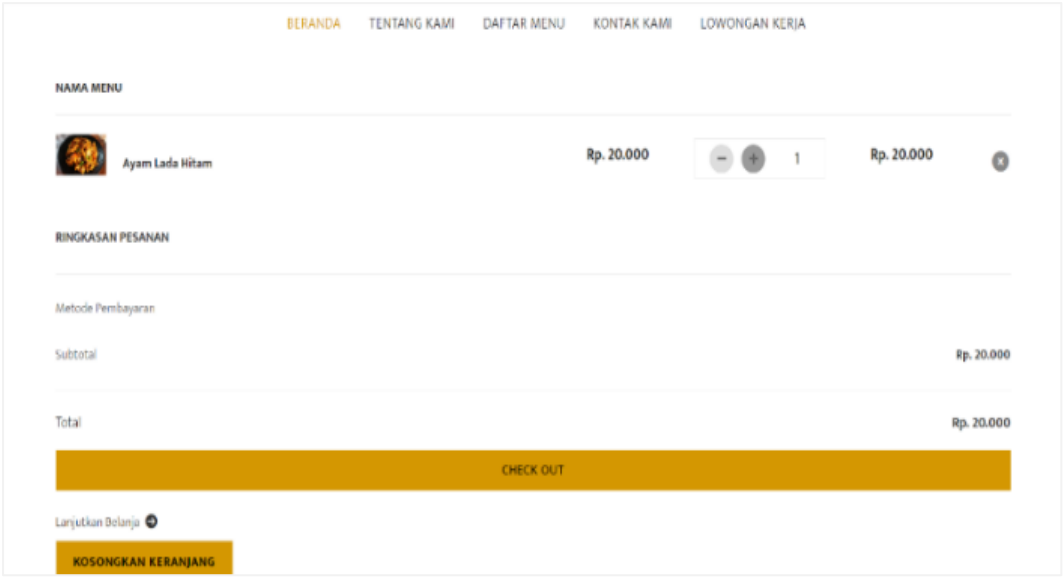

Fig. 9. Cart's page.

6. **Checkout Page**

   The following display is a display for filling in several identities including customer addresses and selecting a payment method that will be processed after the customer makes a payment (Fig. 10).

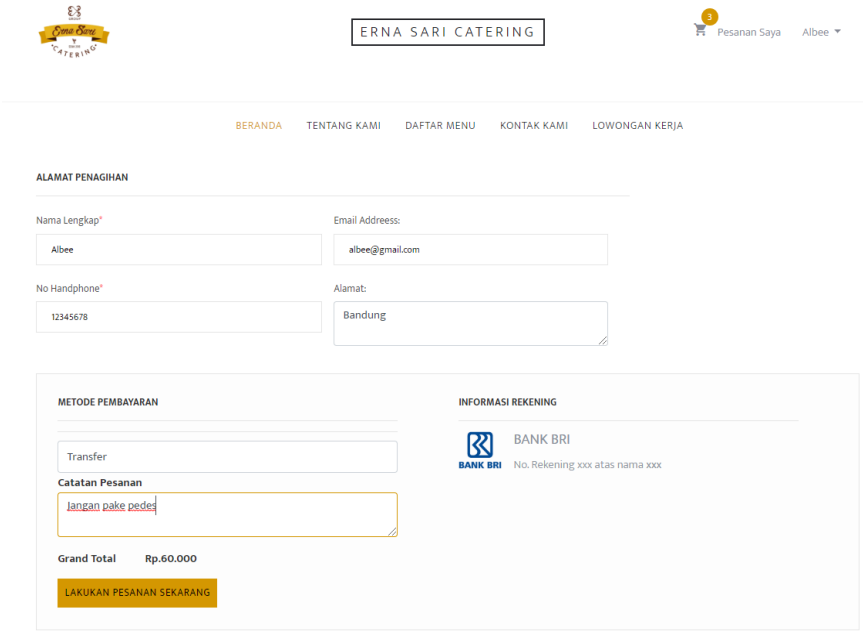

Fig. 10. Checkout page.

7. Order History Page

This view displays a list of orders that have been ordered by customers (Fig. 11).

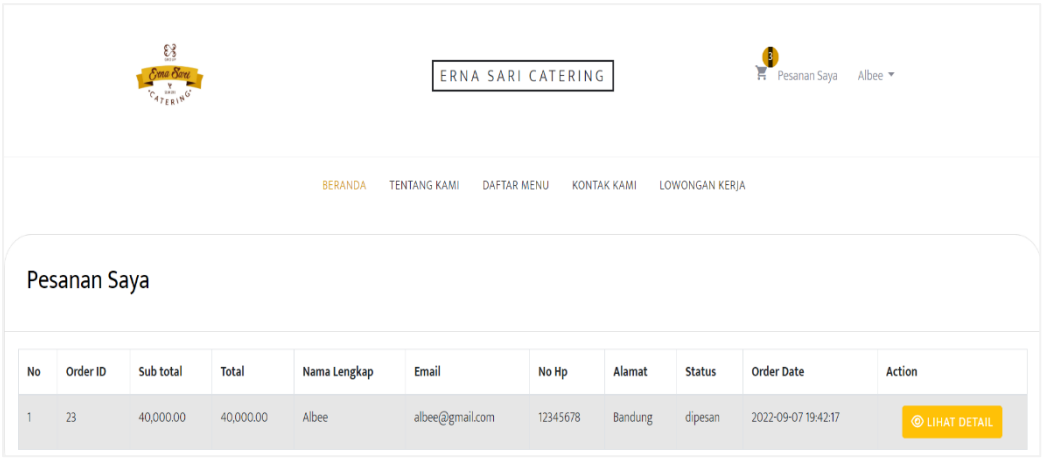

Fig. 11. Order history page.

8. Admin Dashboard Page

This view is the initial view when the admin user logs in. In this view, the admin can see information about the number of food menus, the number of incoming orders, and customers who are registered in the Erna Sari system (Fig. 12).

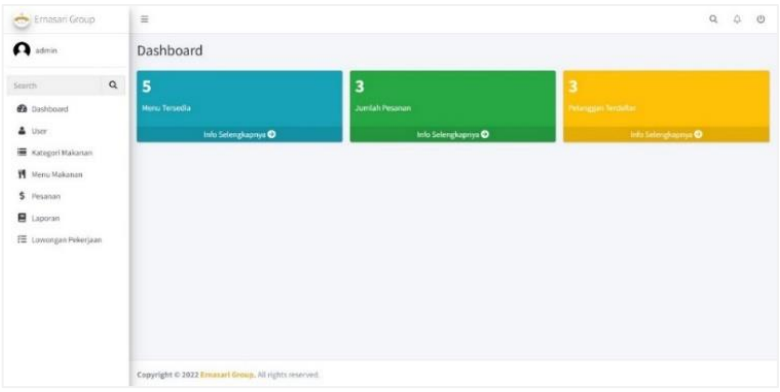

Fig. 12. Admin dashboard Page.

9. User Management Page

In this view, the admin can manage users, either adding admins or adding customers, changing data, and deleting rooms (Fig. 13).

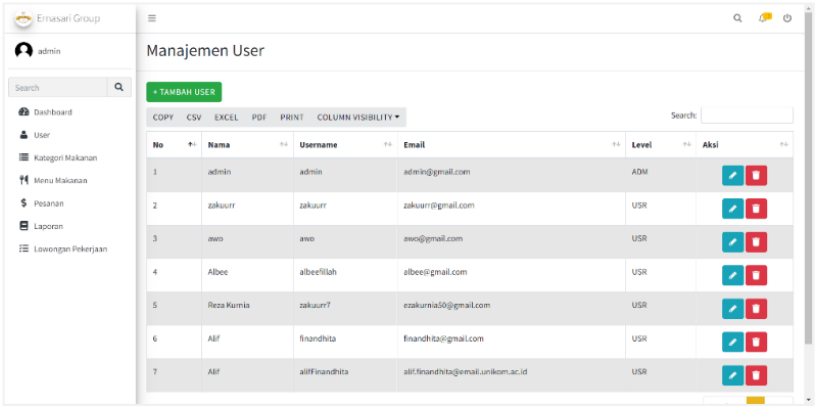

Fig. 13. User management page.

10. Food Category Management Page

In this view, the admin can manage food categories (Fig. 14).

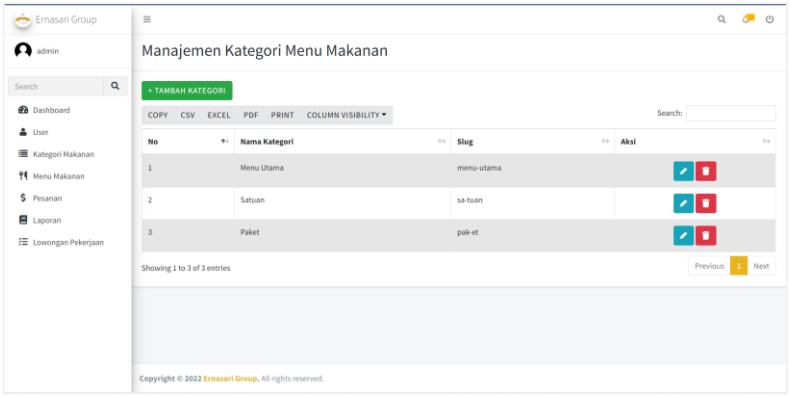

Fig. 14. Food category management page.

11. Food Menu Management Page

On this page, the admin can manage the food menu, either adding, changing, or deleting (Fig. 15).

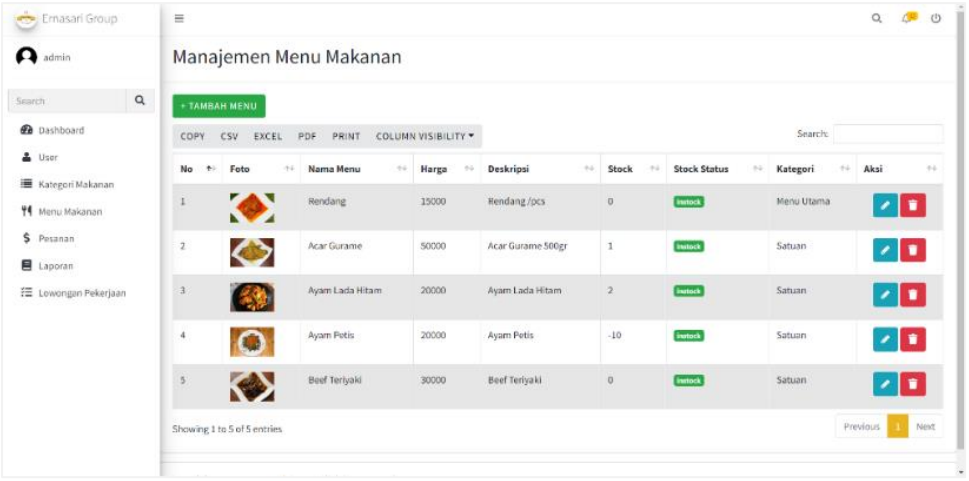

Fig. 15. Food menu's management page.

12. Order List Page

This page displays orders that enter the system which can be managed by the admin to change the processing status until the order is received by the customer (Fig. 16).

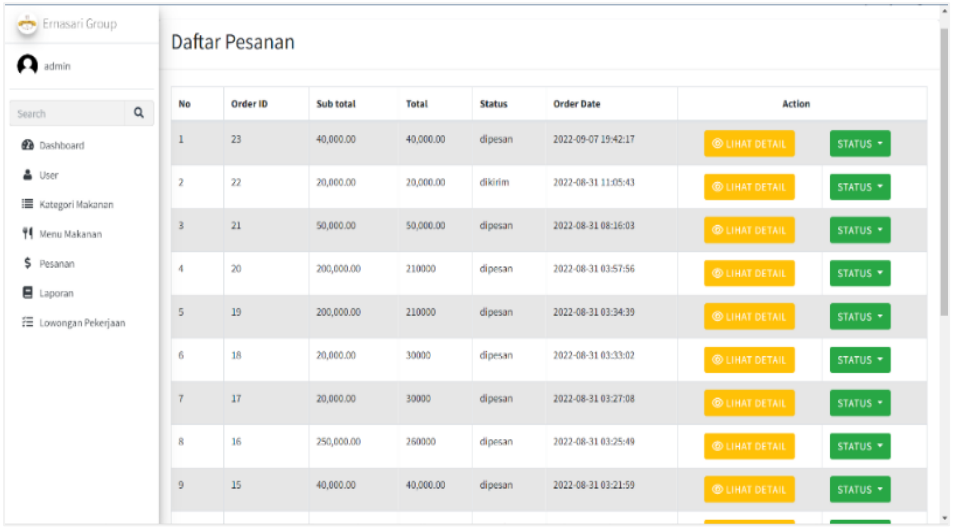

Fig. 16. Order list page.

13. Report Page

On this page, the admin can print or view sales recap reports and income reports (Fig. 17).

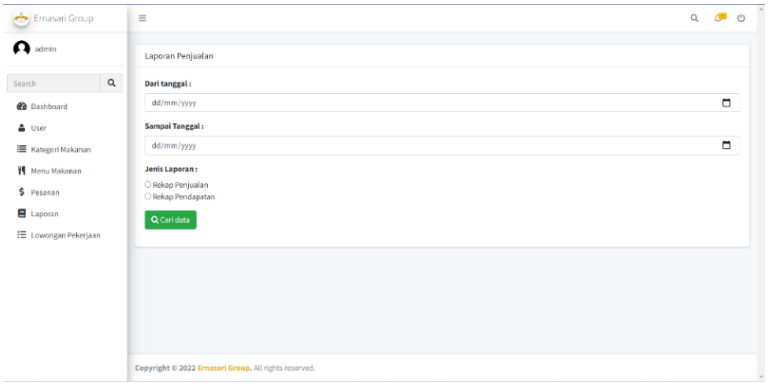

Fig. 17. Report's page.

4.2 Digital Marketing Strategy Application Services for Job Vacancies

The following is a display of information on Job Vacancies at Erna Sari. This view can be accessed by all users even though they are not registered with Erna Sari customers (Fig. 18).

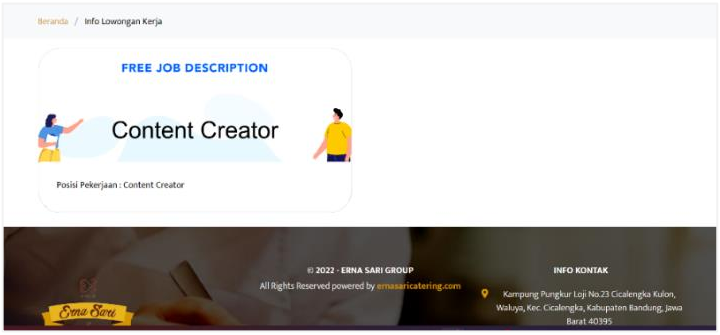

Fig. 18. Job vacancies information service.

Job Vacancies Information Service

The following is a display for managing job vacancies managed by admins where admins can add, change and delete job vacancies data in Erna Sari (Fig. 19).

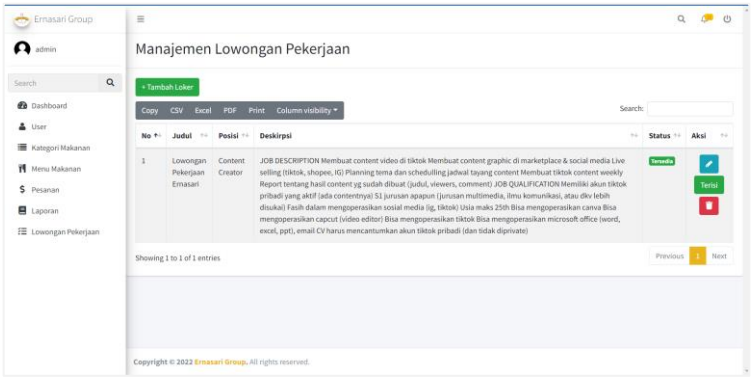

Fig. 19. Job vacancies management page.

5. Conclusions

The information system design that's carried out at the early stages of development will determine the success of the application because it can avoid errors from business processes, systems, and programs before reaching the implementation stage.

The implementation of digital business strategy services can help market products and provide information, especially bestselling products, so that Erna Sari Catering can get product ordering information through digital business, in addition to being able to reach businesses further through website services and other digital services in the form of job vacancy information that can be accessed, through ernasaricatering.com which is useful for providing information for people who are looking for work, especially as a content creator.

Based on the results of research and after creating digital services, it will provide benefits and added value for customers and Erna Sari Catering. This digital marketing service is also an innovation because the system is integrated with job information services. Furthermore, it will be easier for customers to make purchases and Erna Sari Catering will also be helped to deal with problems during this pandemic for the government, the availability of job vacancy information services helps in reducing unemployment.

Acknowledgement

Thanks to the Director General of Research, Technology and Higher Education for funding through the LPDP in the 2021 Scientific Research Grant. Thanks also to the Rector of Universitas Komputer Indonesia, Prof. Dr. H. Eddy Soeryanto Soegoto, MT, and the Vice Rector Prof. Dr. Hj. Umi Narimawati, Dra., S.E., M.Si, the Director of Research, Community Service, and Community Empowerment (DP3M) of Universitas Komputer Indonesia Dr. Wendi Zarman, S.E., M.Si, the Head of Management Study Program Dr. Linna Ismawati, S.E., M.Sc., the Head of the Accounting Study Program Dr. Surtikanti, S.E., M.Si, who has supported this research. We also thank Erna Sari Catering for being a partner in this research.

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Appendix A

Information Systems

A. 1. System Description

The system that we built is an online catering ordering system based on websites and mobile phones. For websites, the technology used is the Framework, HTML5, CSS3, and Livewire, which are libraries to build reactive and dynamic interfaces to enable single-page applications [23, 24]. The DBMS used is MySQL. For mobile, it uses Web View technology (Fig. A-2).

A.2. Business Process

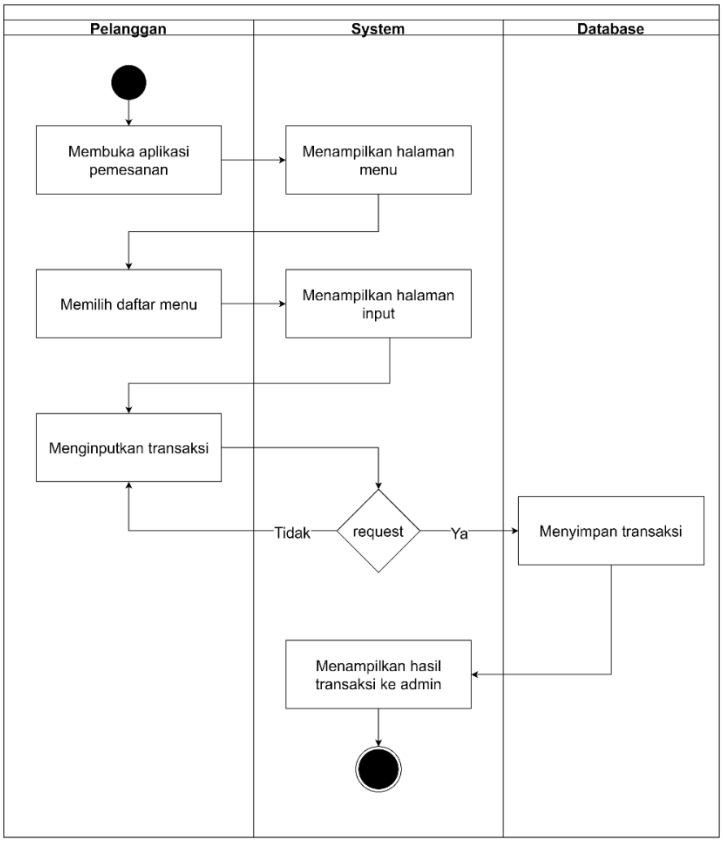

Fig. A-2. Business process.