Web Based Online Food Sales Information System (Case Study of Warung Bebek Srundeng Sedati)

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Sections Info	ABSTRACT
	Objective: This study aims to design and develop a **Web-Based Online Food Sales Information System** for Warung Bebek Sedati to improve the efficiency of buyer queues and order management processes. The current manual recording system has proven to be ineffective, causing delays and difficulties in tracking customer orders. *Method:* The research employs a system development approach using the **PHP programming language** and **MySQL** as the database management system. The design focuses on simplifying transactions between buyers and sellers by enabling online ordering and automated order recording. *Results:* The developed system successfully facilitates buyers in placing food orders online and allows the stall to monitor and manage order data in real time without manual input. The system implementation significantly reduces queuing time and enhances service efficiency. *Novelty:* The innovation of this study lies in integrating a real-time web-based ordering and queue management system tailored for small-scale food businesses, providing a practical technological solution to improve service quality and sales performance in traditional food stalls.

INTRODUCTION

Food is now recognized as providing more nutrients than just calories, protein, vitamins, and minerals. The elements of delicious food are crucial to our understanding of art, and they also significantly enhance intelligence and cognitive acuity. Food not only affects our physical health but also our overall well-being and sense of worth as human beings.

In Indonesia, technology is advancing so rapidly that many elements of daily life are now more efficient, faster, and more effective. This development has spurred many culinary business owners to improve their operations, particularly in the area of food promotion, which relies heavily on IT [1]. An interesting development in this domain is the growing importance of websites as a powerful marketing tool.

Sales are a crucial part of any business operation. Companies need to innovate in this modern era to compete with increasingly rapid technological advancements. Instant, fast, simple, and reliable solutions are essential for those with busy schedules. Creating an online sales system, or e-commerce, is a useful strategy because it allows quick access anytime and from any location, especially for necessities such as food, clothing, and shelter [2]. E-commerce is the exchange of goods and services over computer networks, including information and products.

Located at Griya Candramas CA 19, Sedati, Sidoarjo, Warung Bebek Srundeng Sedati serves a variety of dishes, such as fried rice, duck rice, sambal penyetan, and other rice side dishes. However, they still employ a typical promotional and sales strategy, requiring customers to visit the kiosk to view the menu. In this regard, the author decided to write a thesis entitled "Web-Based Online Food Sales Information System" to address this problem. This aims to facilitate online sales for restaurants and ensure customers can purchase food safely from the eatery.

RESEARCH METHOD

The method used in this study uses a qualitative method. By using this approach, the researcher wants to analyze the problems that exist in the MSME stall and help provide the best solution to overcome the existing problems. In this study, the technique used by the researcher to collect data uses 3 methods, namely: 1) observation, the researcher directly observes the object being studied, by looking at the condition of the development of the MSME. Observations were carried out at Warung Bebek Srundeng Sedati, 2) interviews, the researcher conducted in-depth interviews with related parties, namely MSME owners. 3) literature study, with this method the researcher used several books, journals and the internet that provide the information needed in conducting the research. Micro, Small and Medium Enterprises (MSMEs) play an important role in the economy of a country, including in Indonesia. As part of the private sector, MSMEs play an important role in creating jobs, increasing people's income, encouraging economic growth and reducing poverty levels. In addition, MSMEs also make significant contributions to the development of industry and trade at the local and national levels. The development of the MSME sector is considered important in driving economic growth and reducing poverty levels in a country [3].

As for the results of all the analysis, system design is the first stage in building a system, because at this stage it will be determined how the system is built, so that it can function optimally and well, to solve the problems being faced [4]. Therefore, system planning must be done carefully, so that the system built can be created optimally and stably, in this case the researcher wants to create a Web-Based Online Food Sales Information System (Case Study of Warung Bebek Srundeng Sedati). According to Jhonsen, the Homepage has a function as an introduction for website visitors, providing information about what is on the website and directing visitors to navigate to other pages on the website. On the homepage there is usually a navigation menu, website title, website description and links to other pages on the website [5]. On a website, other pages can be product pages, about us pages, blog pages, contact pages and others. Websites are very important for a company, business or organization in promoting its products or services, building a brand image and reaching a wider audience [6].

System analysis is an explanation of the problems that exist in a system that is divided into several components to ensure the identification of problems in the information system. System analysis aims to evaluate the performance of a system and ensure that the system meets user needs. This system plays two important roles, namely

providing convenience for users to purchase MSME products at any time and providing convenience for MSME owners to monitor information related to sales management [7]. There are two types of users involved in this system, namely Admin and User. Admin is responsible for managing MSME sales as a whole and also managing other aspects of the system, such as entering data on goods, categories, purchase transactions and payments.

According to Valacich, "System design is a stage in the system development process where system planning and analysis are determined first and translated into detailed technology specifications through computer platforms and system programming. An information system is a set of elements contained in an organization, including groups of people, media, technology, procedures and controls used to communicate, carry out transactions and provide information needed in decision making [8]. The main purpose of an information system is to process data and information, and provide access to information needed for appropriate and effective decision making in the organization.
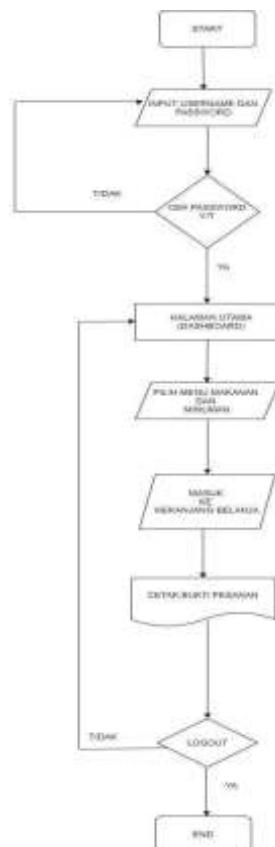

Figure 1. *Flowchart User*

Figure 1 shows a flowchart that explains the process or system flow for users in ordering food. This diagram helps users understand the steps they must take to use the system to order food. First, the user starts the system, then they are advised to log in first. Upon entering the login page, users will be asked to enter their registered account information, namely a username and password. This information is used to authenticate the user's identity and grant access to features or services that correspond to the granted access rights. After a successful login, the system will direct them to the homepage; if it fails, the system remains on the login page. If the user does not have an account, they will

be directed to the registration page and input the required data. If the data is accepted, the system will direct them to the login page. If the data is rejected, the system will remain on the registration page. On the homepage, users can process food orders on the system provided. The ordering process includes product selection, product ordering, and product order transactions. If the user does not want to or has finished ordering, the user can log out and the system process will be completed. If the user cancels the logout, the system will direct them to the homepage.
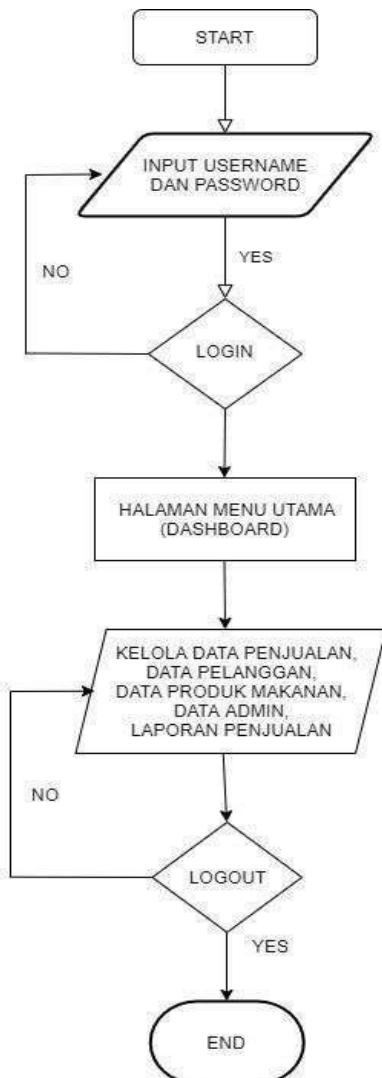

Figure 2. Flowchart Admin

This flowchart helps administrators understand the workflow and tasks that must be carried out in managing the system more easily. With the flowchart, the work process becomes more structured and organized, thereby minimizing errors and making it easier to find solutions if problems occur in the system. Creating a flowchart can also assist in the process of creating system documentation and make it easier for new users to understand the system and how to manage it. By using a flowchart, analysis can visualize the processes and workflows in a program or system, making it easier to analyze and solve problems. Flowcharts also help in determining the sequence of actions that must be carried out in a program, thus making it easier to evaluate the process and make it easier

to determine the necessary corrective actions. Therefore, flowcharts are very useful for analysis in analyzing and solving problems in an information system [9].

A Data Flow Diagram (DFD) provides a visualization of the flow of data within a system and helps determine how data moves from one activity to another. It also helps determine the tasks and activities associated with the data, as well as addressing issues related to data flow. A Data Flow Diagram (DFD) also helps determine what should be received and forwarded as part of a process and helps address issues related to data flow [10]. The image above shows a diagram of the system to be created. The system in question can provide information back to users about transactions and the products they purchase [11].

In addition, there are two admin entities that can enter data into the system, such as product data, shipping costs, payment confirmations, packaging processes, and shipping. DFD (Data Flow Diagram) is a model used to describe the flow of data and information in a business system. The purpose of DFD is to visualize the logic of data or processes that occur in the system so that it can help in identifying problems and improve understanding of how data and information move in the system. Using certain symbols to show how data moves from one process to another. This diagram is very useful for understanding the flow of data in the system and helps in the process of system analysis and design. DFD can also help in understanding how a system works and how data is received, processed and forwarded to the required output [12].

The image above is a level 1 DFD of the system to be created. It explains the data flow process that has been input by the user and processed by the system. The processed data will be stored in the system storage, namely the database and can be returned to the user as information or output data [13]. There are five processes in this system: for users to register to have an account, the login process, the product selection process, and the transaction process. Meanwhile, for admins, the process that can be carried out is the sales data processing process.

RESULTS AND DISCUSSION

From all these discussions, an application system entitled "Web-Based Online Food Sales Information System" Case Study of Warung Bebek Srundeng can be produced. This program or system aims to develop and facilitate product sales at Warung Bebek Srundeng Sedate, and not only that. It is hoped that this system can help expand the product market more effectively and efficiently [14].
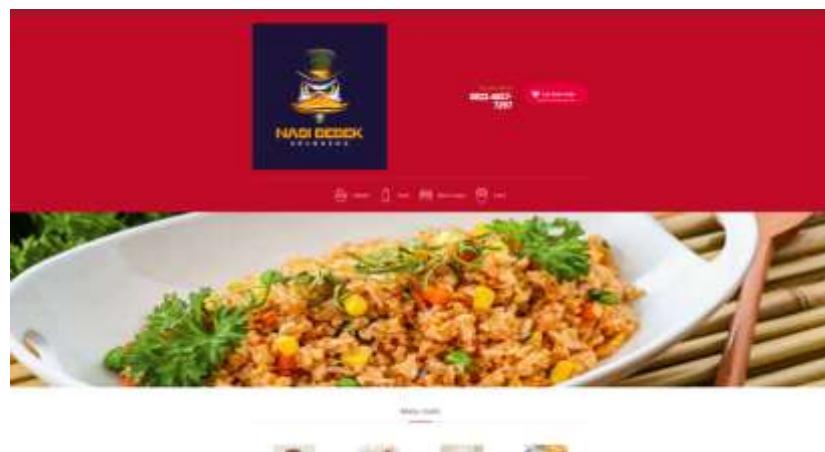
Figure 3. Main Page

The main page is the first page that appears when you open the Warung Bebek Srundeng application.

Figure 4. Product Menu Page

The product menu page is a page for users to choose food or drinks to order.

Figure 5. Dashboard Admin

The Admin Dashboard page functions to manage all activities in this program, such as inputting goods, managing transactions, managing user data and so on.

CONCLUSION

Fundamental Finding : The development of the **Web-Based Online Food Sales Information System** for *Warung Bebek Srundeng Sedati* effectively simplifies the sales process and broadens market reach by enabling customers to access and purchase products online without the need to visit the stall physically. **Implication :** This innovation enhances customer convenience, reduces queuing time, and increases sales efficiency, particularly for small culinary businesses aiming to expand their customer base beyond local boundaries. **Limitation :** However, the system still depends on stable internet connectivity and user familiarity with digital platforms, which may limit accessibility for certain customers. **Future Research :** Further studies are recommended to integrate additional features such as secure online payment gateways, mobile application development, and data analytics for consumer behavior tracking to optimize business decision-making and improve user experience.

REFERENCES

[1]   F. Rahmadayanti, E. Septriani, and ..., "Sistem Informasi Pariwisata Untuk Memudahkan Wisatawan Dalam Menentukan Rute Perjalanan Berwisata di Kota Pagar Alam Berbasis Web," *J. Ilm. …*, 2020, [Online]. Available: http://ejournal.lppmsttpagaralam.ac.id/index.php/betrik/article/view/257

[2]   Z. Abidin and M. Naufal, "Sistem Informasi Booking Homestay Pariwisata Di Kabupaten Sukabumi Berbasis Web," *Cakrawala Repos. IMWI*, 2020, [Online]. Available: http://cakrawala.imwi.ac.id/index.php/cakrawala/article/view/57

[3]   D. YOSAFAT and K. Dinny, *SISTEM INFORMASI GEOGRAFIS PEMETAAN PARIWISATA LOKAL SEBAGAI MEDIA PROMOSI DI KABUPATEN OGAN ILIR BERBASIS WEB*. repository.binadarma.ac.id, 2019. [Online]. Available: http://repository.binadarma.ac.id/852/

[4]   H. Lisma, "SISTEM INFORMASI PARIWISATA DAERAH KABUPATEN KUANTAN SINGINGI BERBASIS WEB," *J. PERENCANAAN, SAINS DAN Teknol. …*, 2019, [Online]. Available: http://ejournal.uniks.ac.id/index.php/JUPERSATEK/article/view/719

[5]   M. R. Fahruddin, "Inventarisasi pemetaan objek wisata berbasis web GIS untuk penyusunan sistem informasi pariwisata di Kecamatan Gedangan Kabupaten Malang," 2021, *mulok.library.um.ac.id*. [Online]. Available: http://mulok.library.um.ac.id/index3.php/81908.html

[6]   D. Adhairani Nasution and N. Aslami, "Pembentukan Sistem Informasi Kafe/Restoran Dengan Menggunakan Metode Supply Chain Management," *SIBATIK J. J. Ilm. Bid. Sos. Ekon. Budaya, Teknol. dan Pendidik.*, vol. 1, no. 8, pp. 1437–1444, 2022, doi: 10.54443/sibatik.v1i8.187.

[7]   P. Studi and S. Informasi, "Pada Café Tahu Berbasis Web," vol. 4, no. 2, pp. 174–183.

[8]   F. P. Achmad and T. Arifin, "Pengembangan Sistem Informasi Restoran Berbasis Android Dan Desktop Pada Restoran Sushi Zen Ramen," *J. Responsif Ris. Sains dan Inform.*, vol. 3, no. 1, pp. 1–11, 2021, doi: 10.51977/jti.v3i1.277.

[9]   E. P. Utami and A. Zein, "Perancangan Sistem Informasi Reservasi Meja Kafe Menggunakan Metode Rad Rapid Application Development Berbasis Web (Studi Kasus : Cafetaria Citra Sawangan Depok)," *Eng. Technol. Int. J.*, vol. 5, no. 02, pp. 108–116, 2023,

doi: 10.55642/eatij.v5i02.346.

[10] E. Alfonsius and A. Y. Safitri, "Sistem Informasi E-Menu Pada Café Raego Berbasis Web Mobile," *e-Jurnal JUSITI (Jurnal Sist. Inf. dan Teknol. Informasi)*, vol. 9, no. 1, pp. 9–17, 2020, doi: 10.36774/jusiti.v9i1.639.

[11] R. T. Subagio, A. S. Mutohari, D. Irsandi, D. Fahreza, M. F. Ali, and R. Gianto, "Pembuatan aplikasi kasir cafe wantu coffee cirebon," vol. 3, no. 1, pp. 1–7, 2024.

[12] A. Luthfi, "Sistem Informasi Penjualan Berbasis WEB Pada Kedai Kopi ABG (Doctoral dissertation, Universitas Negeri Semarang).," *Dr. Diss.*, pp. 1–42, 2017, [Online]. Available: http://lib.unnes.ac.id/31516/1/5302410165.pdf

[13] S. Sherly, "Perancangan aplikasi sistem informasi pariwisata berbasis web untuk desa Giritengah, Borobudur (SI-616)," 2017, *repository.untar.ac.id*. [Online]. Available: http://repository.untar.ac.id/21839/

[14] P. Hanandya, *SISTEM INFORMASI PARIWISATA: BERBASIS WEB MENGGUNAKAN TEKNOLOGI BOOTSTRAP (STUDI KASUS: WISATA AIR TAMPURAN BANYU KENCONO* …. eprints.akakom.ac.id, 2020. [Online]. Available: https://eprints.akakom.ac.id/8958/

[15] S. Wirma, "Data Mining Dengan Metode Naïves Bayes Classifer dalam Memprediksi Tingkat Kepuasan Pelayanan Dokumen Kependudukan," *J. Inform. Ekon. Bisnis*, pp. 156–160, Sep. 2022, doi: 10.37034/infeb.v4i3.155. [19]   R. Erland Hamzah, "The Use of Social Media on Campus to Support Educational Learning," *Scientific Journal of Communication Science*, vol. 14, no. 1, pp. 45–70, 2015, [Online]. Available: https://journal.moestopo.ac.id/index.php/wacana/article/download/89/43

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