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Herbal Cigarette Sales Information System Case Study at Stockis Sin Sriwijaya

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ABSTRACT

There is still space for improvement in the application and usage of technology and information in the sales business, as indicated by the significant percentage of clients who continue to make manual purchases. An example would be the present Sriwijaya Herbal Sin Cigarettes retailer. The Sin Cigarette Herbal Sriwijaya stockist shop employs a traditional sales system where consumers physically visit the shop to make purchases.

This research aims to enhance consumer convenience by developing a sales information system for herbal cigarettes, enabling online access to sales. This study employs a descriptive research methodology and a waterfall system development approach. This approach involves sequential steps, including needs analysis, design, code production, testing, and support. Data collection from the users was followed by the design and development stage of the program, employing the PHP programming language for implementation. Subsequently, an evaluation was conducted on the functioning system.

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The outcome is a sales information system that is anticipated to possess the capability to process data into high-quality information efficiently, seamlessly integrate various components, and serve as a repository for data storage. With the existence of this sales information system for herbal cigarettes, the processing of sales data has been computerized automatically, enabling automated report generation.

This study introduces an internet-based sales information system for the Sriwijaya Herbal Cigarette Stockist Shop. It replaces traditional sales procedures, expands market reach, streamlines report generation, provides comprehensive buyer information, and maximizes profitability. The innovation employs the waterfall system development methodology and the PHP programming language to enhance retail operations' effectiveness and efficiency.

An inherent constraint of this study is the need for the online-based sales information system to address all challenges the Sriwijaya Herbal Cigarette Stockist Shop faces, including technological infrastructure and user proficiency issues. Reliable internet connectivity is crucial for the system's

effectiveness, which may require improvements in certain regions. Additionally, employees and customers may require additional training to use the new systems proficiently, which should be considered in terms of time and resources for this research.

Keywords: Information Systems, Herbal Cigarettes, Sales, Waterfall, PHP.

INTRODUCTION

Herbal cigarettes, a unique alternative to traditional smoking, are in high demand in Indonesia, particularly among health-conscious individuals. Toko Stockis Sin Rokok Herbal Sriwijaya was established to meet the local demand for these distinctive products.

West Java, a densely populated Indonesian province, presents a promising market for herbal cigarettes. With the increasing health awareness and growing interest in herbal products, the demand for herbal cigarettes in this region is expected to be significant.

With its substantial and varied population, Bandung exhibits a pronounced inclination for health and herbal items. The demand for herbal cigarettes in this metropolis may also be substantial.

The use of technology and information in the business of selling herbal cigarettes is now suboptimal, as indicated by the significant number of clients who continue to make manual purchases. (Baihaqi et al., 2024; Setiawan et al., 2017) An instance of this is Toko Stockis Sin Rokok Herbal Sriwijaya, which presently utilizes a traditional sales system whereby consumers visit the store to make purchases. This traditional structure frequently presents numerous challenges, particularly concerning selling to a broader market, such as handling orders for consumers outside the city.

The lack of accessibility to sales information across Indonesia has prevented all customers from receiving updates despite the interest shown by persons beyond the region in these herbal cigarettes. As a result of this problem, Toko Stockis Sin Rokok Herbal Sriwijaya has experienced a significant impact, both in terms of finances and non-financial aspects, including reduced profits and decreased consumer loyalty. Online transaction activities are necessary to enable purchases at any time and from any location through online sales on a website.

Our research aims to develop a website that will not only address the accessibility issue but also significantly enhance revenue through online marketing. This solution, based on the backdrop problem described earlier, has the potential to revolutionize our sales strategy and attract a wider customer base.

Tata Sutarbi, as quoted by Ahmad Lutfi, defines an Information System as a system within an organization that combines the requirements of daily transaction processing to support the managerial functions of the organization and its strategic activities, generating specific reports for external parties. (Ahmadar et al., 2021; Riang Gembira Tampubolon et al., 2022)

Information System, as defined by Panduwiyasa et al., (2022) , refers to a cohesive collection of interconnected elements within an organization. These elements collectively utilize inputs, processes, and outputs to work towards a

1
common objective. The primary function of an Information System is to facilitate informed decision-making.

Information System as a cohesive collection of components that interact systematically and consistently to generate and influence the flow of information, which in turn aids in company decision-making. (Rohmawati & Sifaunajah, 2023; Sacks et al., 2020)

Sales are a vital job a marketing firm performs in supplying items to consumers as part of their marketing activities. This activity holds significant importance, given the ever intricate and cutthroat nature of the economic environment. (Agung et al., 2022; Romadhon & Findawati, 2021)

METHOD

The author employs a descriptive method in their work. The descriptive technique is a research approach that collects data to describe the features of a group of people, an object, or a phenomenon. It aims to present a problem and form conclusions based on the collected facts.

The data collection approaches employed in this strategy encompass:

1. Observation

This data-gathering approach involves completing direct observations at Toko Stockis Sin Rokok Herbal Sriwijaya, which is necessary to acquire accurate and compelling data.

2. Interview

This strategy involves engaging in conversations and question-and-answer sessions with the Owner of Toko Stockis Sin Rokok Herbal Sriwijaya. The Owner's extensive information regarding the research problem is a valuable resource for this study.

3. Literature Review

The approach employed involves thoroughly investigating relevant resources, such as books and online sources, that are closely aligned with the research subject.

4
The Development Life Cycle, often known as the System Development Life Cycle (SDLC), is the systematic process of creating or modifying software utilizing models and approaches employed by previously developed software systems. The SDLC method employs a systematic methodology known as the waterfall approach. The stages of the Systems Development Life Cycle (SDLC) on a global scale are as follows:

1. Initiation

This phase entails the Development of a software project proposal.

2. System Concept Development

This text discusses the idea objectives, encompassing several elements such as system scope papers, analysis, information system benefits,

management strategies, and system ease of learning.

3. Planning

Creates project management plans and other planning documents. Serves as the foundation for acquiring the necessary resources to achieve solutions.

4. Requirements Analysis

Examines the requirements of users of a software system and formulates user requirements. Produces documentation outlining the specific functionalities required.

5. Design

System design documents are created to determine how to fulfill the necessary functions by converting specific needs into comprehensive requirements.

6. Development

Transforms concepts into comprehensive information systems by acquiring and executing system scope instances, such as developing databases, formulating testing case procedures, and preparing files or documents.

7. Integration and Testing

The process of combining and evaluating different components to ensure they function together effectively.

Validates that the software system fulfills the criteria outlined in the functional requirement specification. Supervised by

a team of quality assurance personnel and users. Generates comprehensive testing analysis.

8. Implementation

It encompasses preparing for implementation, executing the software implementation in the user environment, and resolving any difficulties during the integration and testing phases.

9. O&M (Operations and Maintenance)

This text outlines the tasks involved in operating and maintaining the information system in the production environment, which includes the final implementation and integration into the testing process.

10. Disposition

Disposition refers to how something is arranged or organized. Outlines the concluding stages of system development and constructs tangible data based on user actions.

RESULTS and DISCUSSION

System Analysis and Design

a. Business Process Analysis

The following is the flow of the business process at Stockis Sin Herbal Cigarettes Sriwijaya.

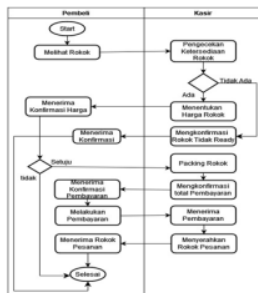


Figure 1. Business Process Analysis

No	Entitas	Kegiatan
1	Pembeli	Milih Produk, menerima konfirmasi harga, menerima konfirmasi pembayaran, melakukan pembayaran, menerima rolok pesanan
2	Kasir	Mengecek Ketersediaan barang, memasukkan harga rolok, mengkonfirmasi total pembelian, menerima pembayaran, menyerahkan rolok pesanan

Figure 2. Description Of Running Business Process Analysis

b. Proposed New System

1. Admin Use Case Diagram



Figure 3. Admin Use Case Diagram

2. Usecase Customer Diagram

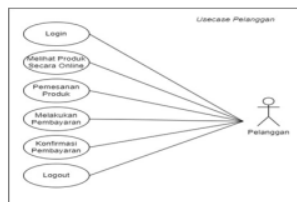


Figure 4. Usecase Customer Diagram

3. Scenario Table

Scenario	Logis
Actor	Admin
Precondition	Memiliki login
Postcondition	Sistem menampilkan halaman login, jika belum daftar maka tidak akan bisa login
Main Flow Of Event	
Action Actor	System Response
1. Menstrala Halaman Login	2. Menstrat halaman Login
3. Halaman login yang terdapat di dalam	4. Sistem akan menampilkan halaman login dari situs Website Admin

Figure 5. Scenario Table

4. Activity Diagrams

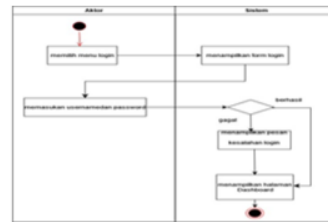


Figure 6. Activity Diagrams

c. System Design

1. Database Design

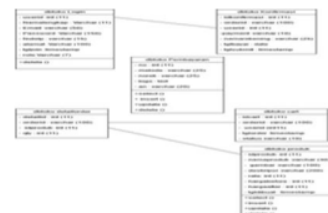


Figure 7. Database Design

2. Interface Design



Figure 8. Interface Design

2 System Implementation

The system implementation stage involves defining an application system in a manner that prepares it for operation.



Figure 9. Login Page Display



Figure 10. Home Page/Dashboard Display



Figure 11. Report Page View

CONCLUSION

The research findings yield the following conclusions:

1. Upon completion of system construction, you can conduct online sales, eliminating customers needing to visit the shop physically.
2. The Sales Information System automates the processing of sales data, a feature that significantly reduces manual work and time, enabling the automatic generation of reports.
3. This information system enables the acquisition of more appropriate information.
4. This information system aims to maximize earnings by enabling online access to sales.

The design of this item's sales information system has successfully fulfilled the expectations of the designer and the Sriwijaya Herbal Cigarette Stockists, who require it.

Here are some recommendations that can serve as input and factors to be taken into account for future researchers:

1. The design of the herbal cigarette sales information system at Stockis SinRokok Herbal Sriwijaya needs to be revised as it fails to address all difficulties, necessitating modifications.
2. The application can be adapted to incorporate technical developments as they occur.
3. The application has a significant limitation in terms of the accessibility of proof of payment, which is exclusively available through WhatsApp. This restricts the user base and hampers the overall usability of the system.
4. Enhancing the aspects of appearance, function, and system security beyond the previous state is necessary.

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