International Journal of Education, Information Technology and Others (IJEIT), April 2023, 6 (2), 18-26
DOI: https://doi.org/10.5281/zenodo.7798000
p-ISSN: 2654-2528 e-ISSN: 2623-2324
Accredited by Directorate General of Strengthening for Research and Development
Available online at https://jurnal.peneliti.net/index.php/IJEIT

Building a Sales Information System as an effort to create Efficiency in Customer Service at Omah'e Cinta Art and Gallery

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Received: 5 March 2023
Revised: 10 March 2023
Accepted: 14 March 2023

Abstract

Omah'e Cinta Art Gallery is a gallery that sells various products and types of women's clothing. At this time the sales system at Omah'e Cinta Art Gallery is still conventional. So that the process of ordering clothes and the process of making orders reports are less efficient. To be able to reach more customers and expand the marketing area as well as gallery promotion, media is needed that can optimally support promotional activities, sales transactions and gallery information. One of the media that is of concern to the public today is to use online media websites. The purpose of this research is to produce a sales information system that can solve problems and simplify the process of selling services to consumers. Building a sales information system for Omah'e Cinta Art Gallery using the programming language PHP and MySQL as the data base. The system development method uses the waterfall method and the system approach method where the object approach method uses several tools such as use cases, use case scenarios, and activity diagrams. Furthermore, qualitative analysis is used to prove whether or not the role of the Sales Information system is in an effort to create Efficiency in Customer Service. The successful development of a web-based sales information system can be a solution in an effort to improve service to consumers to be more effective and efficient.

Keywords: Information Systems, Sales, Websites, Effectiveness, efficiency

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How to Cite: Widianto, N. (2023). Building a Sales Information System as an effort to create Efficiency in Customer Service at Omah'e Cinta Art and Gallery. *International Journal of Education, Information Technology, and Others*, *6*(2), 18-26. https://doi.org/10.5281/zenodo.7798000

INTRODUCTION

The development of information technology is currently experiencing very rapid development. In the development of information technology, it is able to prove that every detail of information that was previously considered difficult to realize, such as the speed of information, efficiency and effectiveness. Information technology has many benefits that are used as a Website for selling products online, where these products can be accessed in all corners of the world.

Omah'e Cinta Art Gallery is a new boutique that is developing that relies on superior, homemade products that are different from the products of other boutiques in general. Omah'e Cinta Art Gallery is located at Jalan Omega no. 25, Cigadung Village, Cibeunying Kaler District, Bandung City. Established since 2020, providing various kinds of products for women's needs such as headscarves, shawls, jewelry, and various types of women's clothing that are currently developing and continue to strive to improve good and fast service from various sides, including

the use of information technology so as to create customer satisfaction. In its sales, Omah'e Cinta Art Gallery still sells manually through messages on social media.

Therefore, based on the problems above, in order to improve service performance at Omah'e Cinta Art Gallery and introduce product information to the wider community, an information medium is needed. Based on this background, the authors took the research object of "Building a Sales Information System as an effort to create Service Efficiency and Customer Satisfaction at Omah'e Cinta Art Gallery.

Based on the background of the problem that the author has written, the formulation of the problem is as follows: What is the user's response to the sales information system of Omah'e Cinta Art Gallery through the Web which makes it easy for consumers to place orders and get to know the products that will be marketed. Is building a sales information system a solution to create efficiency and customer satisfaction Omah'e Cinta Art Gallery through the Web.

LITERATUR REVIEW

The system comes from Latin and Greek, is a unit consisting of components or elements that are linked together to facilitate the flow of information, material or energy to achieve a goal. A system can consist of subsystems. For example, a computer system may consist of a hardware subsystem and a software subsystem. Each subsystem consists of components. The interaction of the subsystems is such that an integrated and integrated unit is achieved. [3]

Information is data that can be processed into a form that is useful for making decisions. Information is useful for making decisions because information can reduce the level of uncertainty (or increase the level of knowledge). Information is very important, because based on information management can determine the objective condition of the company. [3] While the information system is a combination of information technology and the activities of people who use that technology to support operations and management. In a very broad sense, the term information system is often used to refer to interactions between people, algorithmic processes, data, and technology. [4]

Furthermore, the sale is interpreted as a transaction of changing the value of goods into the value of money or the value of trade receivables. Selling or selling means an act of exchanging goods or services for money by influencing other people to want to own the goods offered so that both parties get benefits and satisfaction. Sales focuses on the needs of the seller, whereas selling pays attention to the seller's need to convert his product into cash. According to Philip Kotler (2012) selling is "a social process by which individuals and groups obtain what they need and want through creating, offering, and freely exchanging products of value with others. [1]

Definition of Website According to Hakim Lukmanul, a website is an internet facility that connects documents both locally and remotely. Documents on the Website are called web pages and links on the Website allow users to move from one page to another (hyper text), both between pages that are stored on the same server or servers around the world. Pages are accessed and read through browsers such as Netscape Navigator, Internet Explorer, Mozilla Firefox, Google Chrome and other browser applications.

While the definition of a website according to Alexander FK Sibero, a website is a system related to documents used as a medium for displaying text, images, multimedia and others on the internet network.[2]

It is important to interpret the concept of a web-based information system, namely a set of interconnected components that function to collect, process, store and transfer information in the form of text, images, sound and information that is presented in the form of hypertext and can be accessed by software to support the creation of activities in organizations in achieving the goal of translating hypertext documents into document forms that can be understood by humans, then a web browser through a web client will read web pages stored on a web server through a protocol which is often called HTTP (Hypertext Transfer Protocol) [5].

Methods of Analysis and Object Approach

Usecase Diagrams

Use Case sdiagram is a diagram that uses notations to describe the flow of system data whose use is very helpful for understanding the system logically, structured, and clearly. [10]

Scenario Charts

Use caseswork with scenarios. Scenarios describe the sequence of steps taken by actors to the system and vice versa, the system to actors. Activity diagrams function to model the workflow of a business process and the sequence of activities in a process. Activity diagrams are made to describe the activities of actors.[11]

Activity Diagram

Activity diagrams, in Indonesian, activity diagrams, namely diagrams that can model the processes that occur in a system. The process sequence of a system is described vertically. Activity diagram is the development of a Use Case which has an activity flow.[9]

Elements in Website Design

1. PHP

   PHP (Hypertext Preprocessor), is a programming language on the server side that allows programmers to insert commands - web server software commands (Apache, IIS, or whatever) will be executed before the command is sent by the page to the browser that requested it, for example is how is it possible to insert current date on a web page whenever display date is required. In accordance with its function that runs on the server side, PHP is a programming language used to build web application technologies. [6]

2. MySql

   MySQL is an implementation of a relational database management system (RDBMS) which is distributed free under the GPL (General Public License). Each user can freely use MySQL, but with the limitation that the software may not be used as a commercial derivative product. MySQL is actually a derivative of one of the main concepts in pre-existing databases; SQL (Structured Query Language). SQL is a database operating concept, especially for selecting or selecting and entering data, which allows data operations to be done easily automatically.[7]

3. Xampp

   XAMPP is an Apache web server software in which a MySQL database server is available and can support PHP programming. XAMPP is easy-to-use

software, free and supports installation on Linux and Windows. Another advantage is that it only installs once, the Apache Web Server, MySQL Database Server, PHP Support (PHP 4 and PHP 5) and several other modules are available.[8]

RESEARCH METHODS

The research method is a step taken by the researcher specifically to collect information or data by means of an investigative way of collecting, recording and analyzing data which is done systematically on the data that has been obtained. The research method provides an overview of the research design which includes the procedures and steps that must be taken, the time of research, data sources, and by what steps the data is obtained and then processed and analyzed for research needs.

1. Research design

In conducting this research, the authors used a descriptive method, namely research based on existing company data to be analyzed, so that conclusions can be drawn from the analysis, descriptive research is problem solving oriented research. Starting from collecting the necessary data by observing the running process and also conducting interviews with those responsible for sales at Aliyah Butik. To finally be processed by researchers to obtain problems that will be raised in reports while conducting research.

2. Types and Data Collection Methods

The data used are primary data and secondary data obtained by interviewing and direct observation of Aliyah Butik. According to Lofland and Lofland quoted in Moleong that the main data source in qualitative research is words, and the remaining actions are additional data such as documents and others. This study uses primary and secondary data.

3. Primary Data Source

Collection of research data obtained directly from the original source, including:

1. Observation

   Activities carried out for data collection by observing and reviewing the actual situation directly at Aliyah Butik.

2. Interview

   Activities carried out for data collection face-to-face with parties related to the problem under study and conducting question and answer.

4. Secondary Data Sources

According to Sugiyono (2016), secondary data is a data source that does not directly provide data to data collectors, for example through other people or through documents. Secondary data sources are used to support information obtained from primary data sources, namely from library materials or literature, previous research, books, websites, activity reports and so on.

5. System Approach and Development Method

The system approach method used is the objective approach method. The tools used in the system approach method are Usecase Diagrams, Usecase Scenarios, Activity Diagrams.

The system development method used is a prototype. Prototyping is an iterative process in system development in which requirements are converted

into a working system which is continuously improved through collaboration between users and analystss.

RESEARCH RESULTS AND DISCUSSION

1. System planning

System planning is the process by which a system is designed and later system development is carried out. This system planning involves estimating the physical, labor and funding requirements needed to support system development and to support its operations after implementation.

System design can be interpreted as:

1. The stage after the analysis of the system development cycle.
2. Defining functional requirements.
3. Preparation for implementation design.
4. Describe the system to be formed, in the form of planning drawings, sketching, arrangement of several separate elements into a unified whole and function.
5. Configuration of system software and hardware components.

2. Proposed Design Procedure

Ongoing procedures in the Information System for Sales and Purchase of goods at Omah'e Cinta Art Gallery which still uses the old system. The difference with the proposed procedure lies in that the old system is still conventional, while the proposed system is computerized. The following are the procedures proposed for Aliyah Butik:

a. Consumers create an account for the registration stage so they can enter the Omah'e Cinta Art Gallery sales website by filling in their username, email and password. Then, the system will verify the consumer data that has been filled in
b. After being successfully verified by the system, the consumer performs the login stage by entering the registered username and password.
c. Consumers will enter the main page of the Aliyah Butik website, if the login stage is successful. Consumers can view the available catalogs on the main page of the Aliyah Butik website.
d. Consumers click on the desired item and enter the order page. Here the consumer fills in the appropriate address data to be sent.
e. After filling in the address, the consumer will enter the payment page. Consumers will choose a payment method that is already available. The system will provide a payment code to be filled in by the consumer. Then the system will verify the payment code. If the system has verified the payment code, the payment transaction is successful

3. Use Case Design

a. *Use* Case *Diagrams*

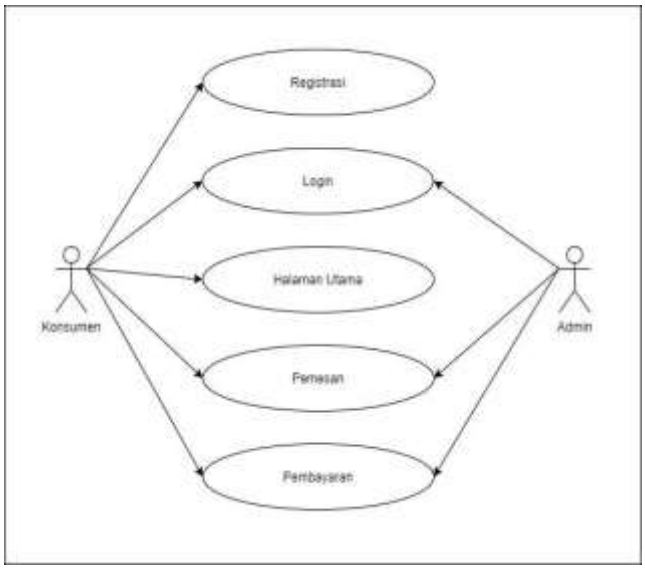


Figure 1 Use Case Website Diagram

b. Use case scenarios

Table 1 Registration Usecase Scenario

Nama Usecase	Registrasi
Tujuan	User melakukan
Deskripsi	Melakukan pen
Aktor	User dan Sisten
Skenario Utama	
Kondisi Awal : user belum memiliki	
User	
1. Mengklik register untuk mendaftarkan akun	
2. Mengisi form data diri	3. System user
4. User telah terdaftar di website Aliyah Butik	
Kondisi Akhir : User sudah regist	

Table 2 Scenario Usecase Login

Nama Usecase	Login
Tujuan	Untuk masuk k
Deskripsi	Melakukan pro
Aktor	User dan Siste
Skenario Utama	
Kondisi Awal : User sudah melakukan	
User	
1. Memasukan Username dan Password yang sudah terdaftar	
	2. System dan pes maka s utama
1. User berada di halaman utama website	
Kondisi Akhir : User berhasil login ke da	

Table 3 Main Page

Nama Usecase	Halaman Utama
Tujuan	Untuk melihat katalog yang tersedia
Deskripsi	Melihat barang katalog yang tersedia di website Aliyah Butik
Aktor	User dan Sistem
Skenario Utama	
Kondisi Awal : User sudah melakukan login	
User	**Sistem**
	1. Sistem menampilkan katalog yang tersedia di Aliyah Butik
2. User melihat dan mengecek ketersediaan barang di Aliyah Butik	
Kondisi Akhir : User memilih katalog yang tersedia	

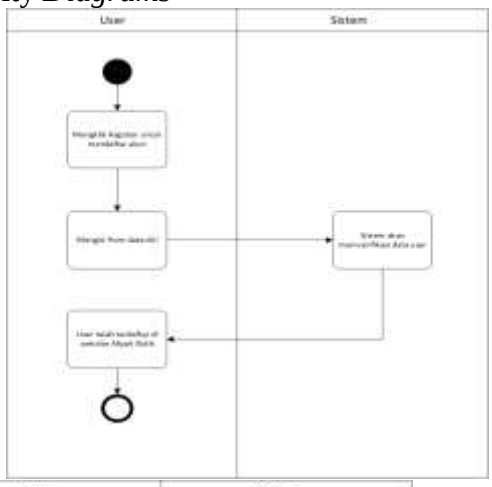
Usecase Scenario

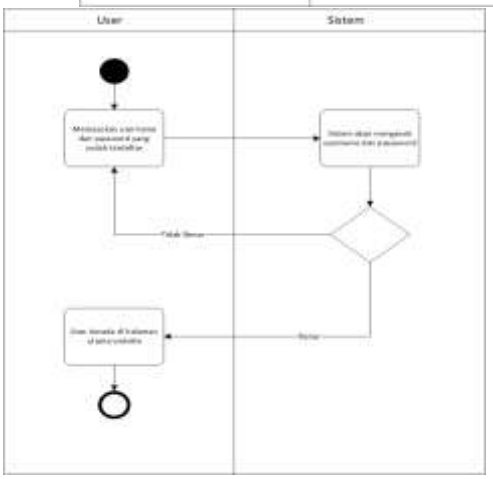
Table 4 Ordering

Nama Usecase	Pemesanan
Tujuan	Untuk memesan barang yang diinginkan
Deskripsi	Melakukan proses pemesanan
Aktor	User dan Sistem
Skenario Utama	
Kondisi Awal : User masuk ke halaman pemesanan	
User	**Sistem**
1. User sudah memilih barang yang diinginkan	
	2. Sistem mengecek ketersediaan barang
	3. System akan meminta alamat pengirim jika barang tersedia, jika barang tidak tersedia system akan memberitahukannya
4. User akan masuk ke halaman pembayaran	
Kondisi Akhir : User berhasil melakukan pemesanan barang yang tersedia	

Usecase Scenarios

c. Activity *Diagrams*

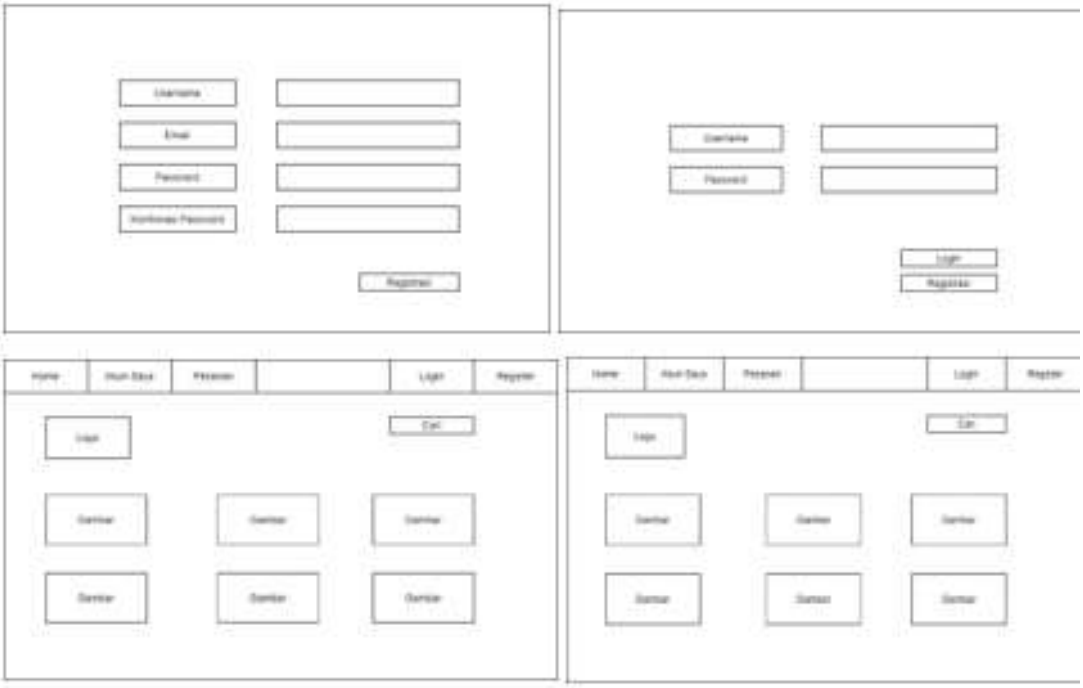




d. Menu Structure

The menu structure is a general form of a website-based information system design to make it easier for users to run the website. So that when accessing the website there is no difficulty in selecting the desired service menu. The following is the design of a sales information system in order to achieve service efficiency to Omah'e Cinta consumers.

e. InterfacesWebsite



Based on user responses, the sales information system that has been built is capable of providing effective information regarding various products that will be

marketed to consumers through Omah'e Cinta Art Gallery. Furthermore, through a web-based sales information system, it is able to make it easy for consumers to place orders and get to know the products that will be marketed by Omah'e Cinta Art Gallery via the Web.

In the end, it can be explained that the web-based sales information system for Omah'e Cinta Art Gallery is one of the solutions to create service efficiency for Omah'e Cinta Art Gallery consumers

CONCLUSSION

Based on the results of the analysis and discussion, it can be concluded that:

a. The successful construction of a Web-Based Sales Information System using an object-based method and translated into the PHP programming language.
b. The existence of a Sales Information System at Omah'e Cinta Art Gallery is able to make employee performance more effective and efficient, because by carrying out data processing to product order reports are done computerized).

BIBLIOGRAPHY

Kotler, Philip dan Kevin Lane Keller., 2009, Manajemen Pemasaran, Edisi. Kedua Belas,. Jilid 1, dialih bahasakan oleh Benjamin Molan, Jakarta: PT Indeks.

Bahari, A. T. (2018). *Sistem Informasi Inventory berbasis Website di PT. Agung Jaya Abadi* (Doctoral dissertation, Universitas Komputer Indonesia).

Kurniawan, A. (2020). Sistem Informasi Penjualan Pada Toko Bangunan Has (Doctoral dissertation, Universitas Komputer Indonesia).

Tsamratul'ain, A. (2018). *Sistem Informasi Gudang Kopi Pt Foodie Bisnis Indonesia* (Doctoral dissertation, Universitas Komputer Indonesia).

S. A. and H. , "Web Design: Theory and Practicies," Andi, Yogyakarta, 2007.

K. Yank, Build Your Own Database Driven *Website* Using PHP & MySQL, SitePoint Pty. Ltd, 2004.

A. Solichin, "Pemograman *Web* dengan PHP dan MySQL," 2016

H. T. Md and R. M, "An Emperical Approach to Optimize Design of Backpropoganition Neural Network Classifier for Textile Defect Inspection," *British journal of Mathematics & Computer Science,* vol. 3(4), pp. 617-634, 2013

Ramdhany, A., & Irawan, D. (2021). Perancangan Sistem Informasi Inventory dan Penjualan Menggunakan Visual Studio. Syntax Literate; Jurnal Ilmiah Indonesia, 6(7), 3168-3184.

Putra, K. N., & Arifin, R. W. (2018). Sistem Informasi Penjualan Bedcover Berbasis Website. Jurnal Mahasiswa Bina Insani, 3(1), 13-22