Analysis and Design of Drug Sales Systems Based on E-Commerce at Pt. Kreanova Pharmaret (Apotek Roxy)

Munawir

JL. Raya Meruya Selatan, Kembangan, Jakarta, 11650, Indonesia

Abstract: *The development of technology and the internet is very advanced in creating new business opportunities where business transactions are mostly carried out in electronics. The company is expected to be more creative and innovative in developing its business. Apotek Roxy is one of the business units that is engaged in the sale of medicines and medical equipment spread across the Jakarta, Depok, Tangerang and Bekasi areas which have problems in product marketing and sales systems still manually. These problems make management have to innovate with the target of expanding marketing through the creation of e-commerce-based sales information systems.Web-based system design analysis can expand the pharmaceutical market network, minimize marketing costs, and facilitate consumers to buy drugs without having to come to the pharmacy. Analysis of e-commerce methods and system design uses the Unified Modeling Language (UML) and makes display design familiar to consumers. the results of the analysis and design of the system recommend continuing the analysis and development of the system into mobile e-commerce*

Keywords: e-commerce, expand market, market, sales online systems, pharmacy, mobile commerce

1. Introduction

The increasing development of technology and the internet has resulted in a variety of new businesses being carried out in businesses that are increasingly being carried out by electronics. The company has been demanded to be more creative and innovative in developing its business. The internet helps us to be able to help, communicate, and even trade with people from all corners of the world cheaply, quickly and easily. E-commerce is a technology that is a fundamental requirement of every organization engaged in trade. E-commerce is a way for consumers to be able to buy the desired item using internet technology. Development of e-commerce needs to pay attention to the aspects of benefits that customers receive for e-commerce that are more widely accepted and produce more transactions [1]. All aspects of human life must come from the internet, the business sector represents the most important sector of the development of information technology and telecommunications and the fastest growing. Apotek Roxy is one of the business units engaged in the sale of medicines and medical equipment that are spread in the Jakarta, Depok, Tangerang and Bekasi regions. Apotek Roxy has several types of services besides sales, such as health checks, as well as direct consultations by doctors that are provided to patients. Apotek Roxy has been trying so far to expand marketing in product sales, one of which is by manually launching product brochures and catalogs, this makes it difficult for management to discuss the market details and drug sales systems currently only providing passengers who come to pharmacies and cannot serve customers outside the reach of the pharmacy area, on the other hand the increasing number of companies increasingly difficult to perform and increase with the level of profitability. Consumers (patients) are often difficult to access various information about products, the latest pricing information, limited promotional media and inflexible use, personalization constraints, and increasing operational costs. Limited mobility and market liberalization make management have to make targeted market offerings through the creation of web-based sales information systems. Focus on creating a web-based sales information system to gain market profit with the aim of obtaining more competitive profits. Consumers (patients) can place orders and purchases anywhere without restrictions and time, and respond to the current information needed.

2. Literature Review

2.1. Information Systems

Information system is a system within an organization that brings together the daily transaction processing needs that support the organization's operational functions that are managerial with the strategy activities of an organization to be able to provide certain external parties with the necessary reports[2].

2.2. Sales Information System

Sales Information System is an information system that organizes a series of procedures and methods designed to produce, analyze, disseminate and obtain information to support decision making regarding sales[3].

2.3. E-Commerce

E-Commerce is the result of development and part of the information technology era that is able to create new economic pathways. The internet is currently commonly used by businesses in seeking trade information, trade promotions, and establishing trade relations internationally [4].
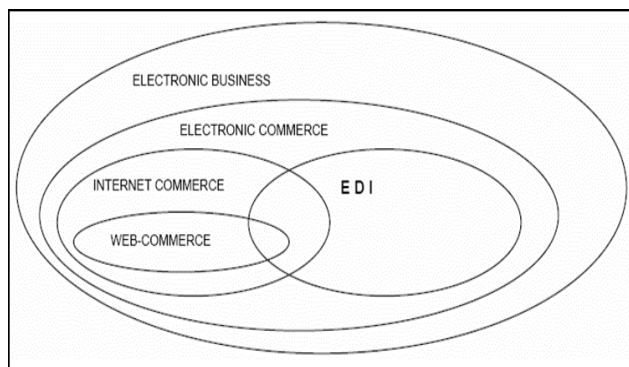
Figure 1: Scope of E-Commerce [4]

Figure 1 describes the scope of e-commerce which consists of:
1) Electronic Business, is the scope of electronic trading activities in a broad sense.
2) Electronic Commerce, is a scope of trade conducted electronically, which includes:
   - Trade via the internet (Internet Commerce)
   - Trading with Internet Web facilities (Web-Commerce)
   - Trading with electronically structured data exchange facilities (Electronic Data Interchange / EDI).

3. Method

3.1. System Development Method

In designing and implementing inventory information systems at theApotek Roxy, a prototype method was used. The prototype method is one technique that allows system users to participate in determining the needs and formation of the system as well as what the system works to meet those needs. The prototype is used to develop user needs that are difficult to define in streamlining the System Development Life Cycle process
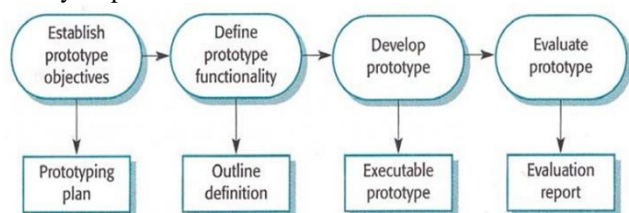

Figure 2: Prototype Model [5]

4. Discussion

4.1. Current System Analysis

System analysis is a stage that needs to be done before the system development process, because at this stage it aims to find out and observe what is involved in a system that relates between one process and another process. In theApotek Roxy there is a system that has been running or a manual sales process as usual. When a customer comes to the pharmacy and buys the medication needs needed and served by the pharmacy by prescription or without a prescription. Analysis System Runs represented in figure 3.
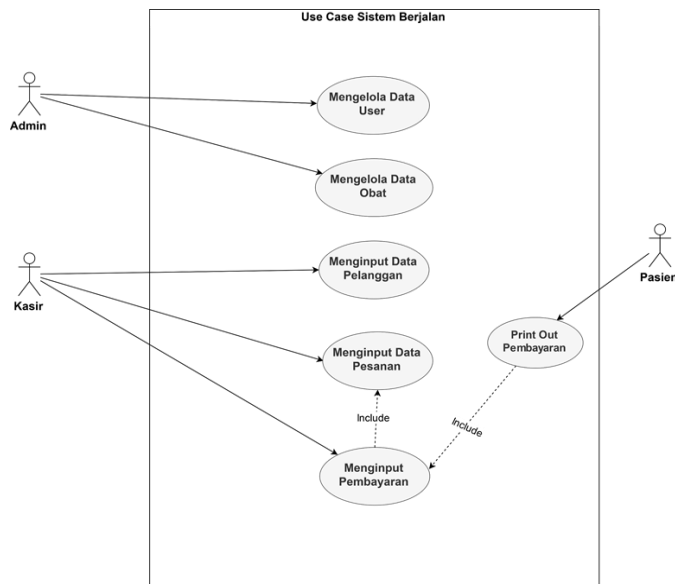

Figure 3: Current System Use Case Diagram

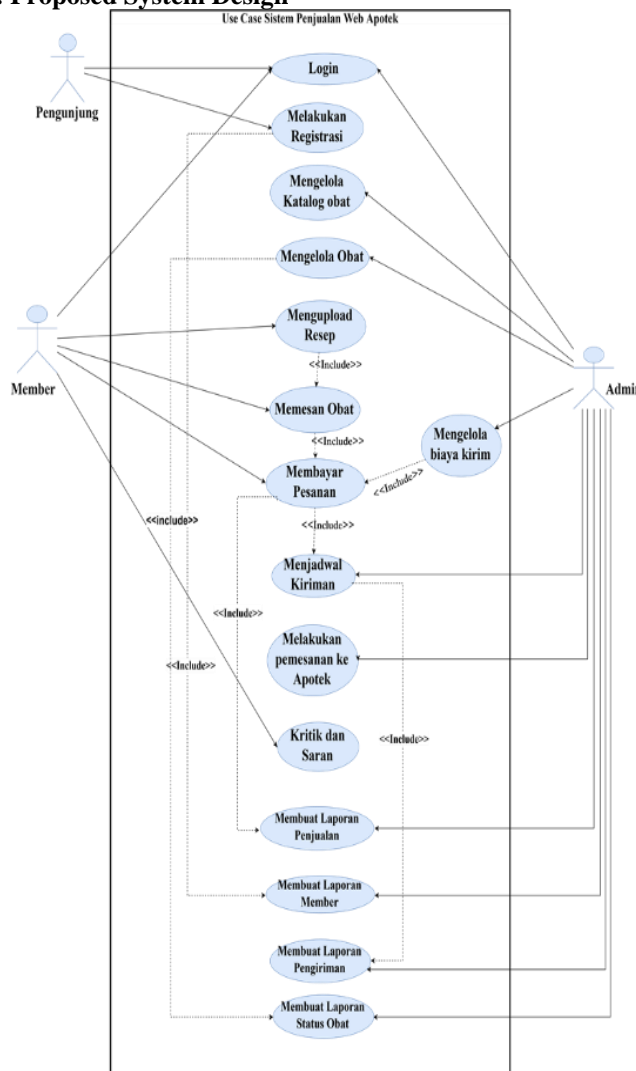### 4.2. Proposed System Design

Figure 4: Use Case E-commerce Diagram Proposed

The proposed use case is represented in the system design for the proposed system
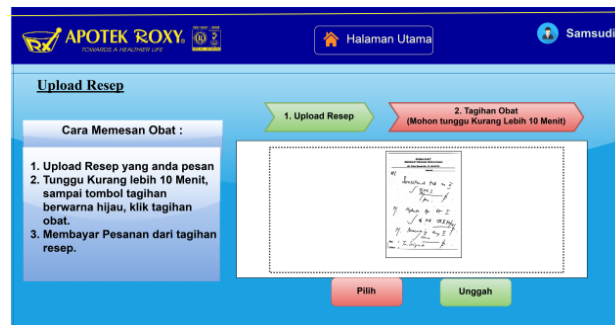
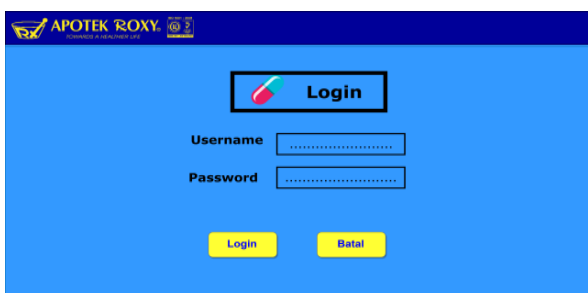**Figure 5:** Design of Main Page

Figure 6: Design of User Login

Figure 7: Design of Drug Catalog

Figure 8: Design Of Draft Drug Detail

Figure 9: Draft Shipping Pages Design

Figure 10: Design of Prescription Upload Views

Figure 11: Bill Display Design

5. Conclusion

Conclusions from various explanations that have been stated in this report, it can be concluded that several things are as follows:
1) Implementation of the system can prioritize delivery on patient member orders.
2) The application of e-commerce website analysis and design in Apotek Roxyas an electronic sales media will be able to improve performance in sales activities as well as the marketing system ofApotek Roxy not limited to place and time so that it can be more widely known.
3) Application of analysis and design of the web sales system at Apotek Roxy displays product information complete with images and descriptions of these products and members can make transactions on the same page.

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