



Design and Analysis of Point of Sales Information System for CV XYZ: A Case Study

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Abstrak

This research aims to design and analyze a point of sales information system for CV XYZ. The research method used is observation and interview to obtain information about business processes and user requirements. In addition, system requirements analysis and system design are also carried out, including database design, user interface, and system functionality.

The result of this research is the design and implementation of a point of sales information system that meets user needs and business processes in CV XYZ. This system has features such as inventory management, sales recording, customer management, and sales reporting. Additionally, the system has a user-friendly interface that is easy to use by the users.

It is expected that the implementation of this point of sales information system can help improve the efficiency and effectiveness of business processes and facilitate information management in CV XYZ.

Keyword : point of sales, information system, design, analysis, user requirements, business processes, inventory management

INTRODUCTION

In today's competitive business environment, it is important for companies to have an efficient and effective information system to support their business processes. One of the key areas in which information systems can be utilized is in the management of sales transactions. The Point of Sales (POS) system is a type of information system that is specifically designed to manage sales transactions and related activities.

This research focuses on the design and analysis of a Point of Sales information system for CV XYZ. CV XYZ is a company that specializes in the distribution of goods to various retail outlets in the region. The current sales management process at CV XYZ is largely manual, which can be time-consuming and error-prone.

The purpose of this research is to design and analyze a POS information system for CV XYZ that is capable of streamlining the sales management process, reducing errors, and improving overall efficiency. The research methodology used in this study includes observation and interview to gather information about the business processes and user requirements. In addition, system requirements analysis and system design are conducted, which includes the design of the database, user interface, and system functionality.

The expected outcomes of this research are a detailed design of the POS information system for CV XYZ and an analysis of its effectiveness in improving sales management

processes. The results of this research will provide useful insights for businesses in similar industries and can be used as a reference for future research in the field of information systems.

This research is important because it addresses a key challenge faced by many companies in the retail industry - the need for a streamlined and efficient sales management system. By developing and implementing a POS information system, CV XYZ can improve its overall productivity, reduce errors, and enhance the quality of its customer service.

The remainder of this research paper is structured as follows: the next section provides an overview of related literature on the design and implementation of POS information systems. This is followed by a detailed description of the research methodology used in this study. The results of the study, including the design and analysis of the POS information system, are then presented. Finally, the conclusion summarizes the key findings of the research and discusses its implications for businesses in the retail industry.

RESEARCH METHODS

This research uses a qualitative approach with observation and interview methods as data collection techniques. Observation is carried out by observing the business processes in CV XYZ, while interviews are conducted by interviewing managers and staff involved in sales management processes.

Observation is done to collect information about the current business processes, including inventory management and sales transactions. In addition, observers also observe how staff work with the current information system, so that problems and difficulties they face can be identified.

Interviews are conducted with the aim of obtaining more detailed information about the business processes and user needs related to the POS information system to be designed. Some of the topics discussed in the interview include business processes, constraints faced when using the existing information system, user needs, and expectations for the new information system.

Data obtained from observation and interviews are then analyzed to identify problems and needs that must be addressed in the design of a new POS information system. Furthermore, system design is carried out by designing the database, user interface, and system functionality.

The research method used in this study is expected to provide a better understanding of business processes and user needs, as well as help design a more suitable POS information system for CV XYZ.

RESULTS AND DISCUSSION

The Point of Sales (POS) information system design aims to support three stakeholders, consisting of the sales department, purchasing department, and store manager, in conducting sales and purchasing activities at CV XYZ. In the design of the POS information system architecture, there are several steps that can be taken:

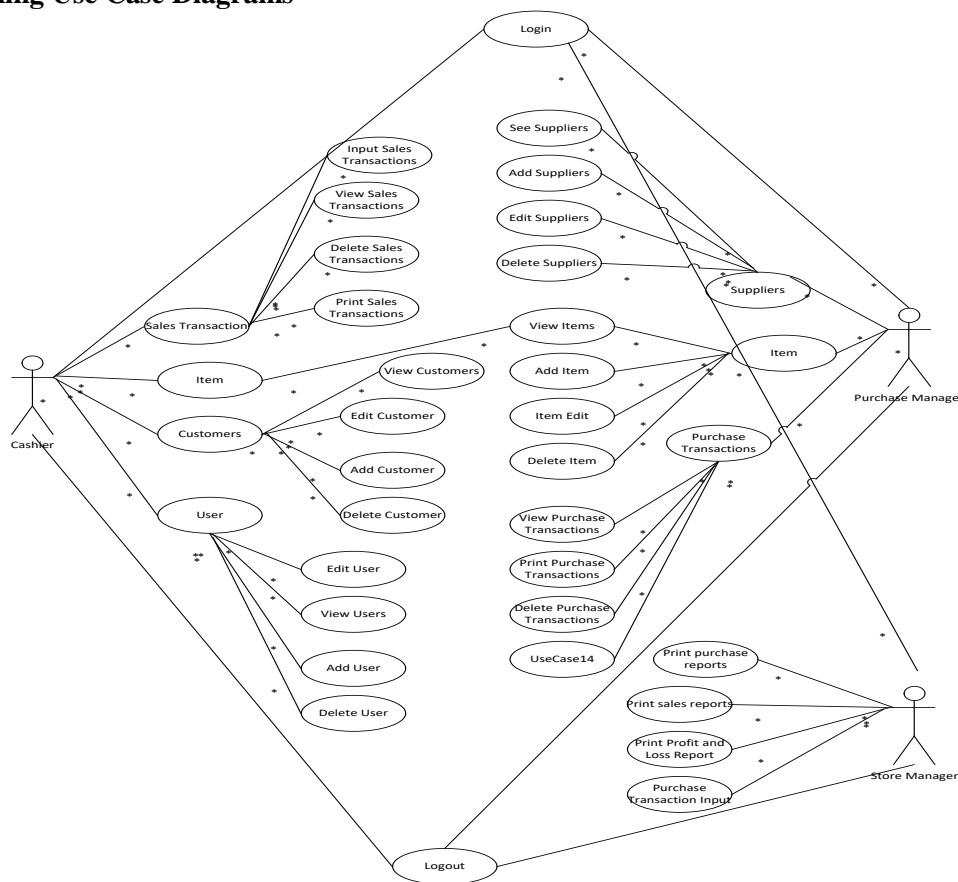
1. Identify business needs: First, it is necessary to identify the business needs desired by the three stakeholders of CV XYZ. This includes the features and functions needed by the POS system, such as recording sales, purchasing, inventory, and related reports.
 2. Choose platforms and technology: After identifying the business needs, the next step is to choose platforms and technology that will be used in developing the POS system. The
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selected platform and technology must be able to support the functionality of the POS system and meet the technical needs of CV XYZ.

3. Design the database structure: The database structure must be designed in such a way that it can store transaction data quickly and efficiently. The database should also be designed with future data growth in mind.
4. Design the system architecture: The system architecture must be designed in such a way that the system can run efficiently and stably. The system architecture must also consider the possibility of future feature and functionality growth.
5. Implement the system: After the system design is complete, the next step is to implement the POS system. System development must be carried out gradually, starting with the most important features and functions. The development team must regularly test the system to ensure that it runs well.
6. Training and support: After the POS system is ready for use, the next step is to provide training and support to system users. Training and support must be provided thoroughly to ensure that system users understand how to use the system and can solve problems if they occur.

In its use, the sales department will use this information system to add sales of goods, and the system will provide output by providing data on goods to be sold to customers. The purchasing department will use this information system to add purchases and inventory, and the system will provide output by providing data on purchases and updated inventory. As for the store manager, the POS system provides output data in the form of reports related to sales and purchasing activities that can be used for evaluation and decision making.

Designing Use Case Diagrams

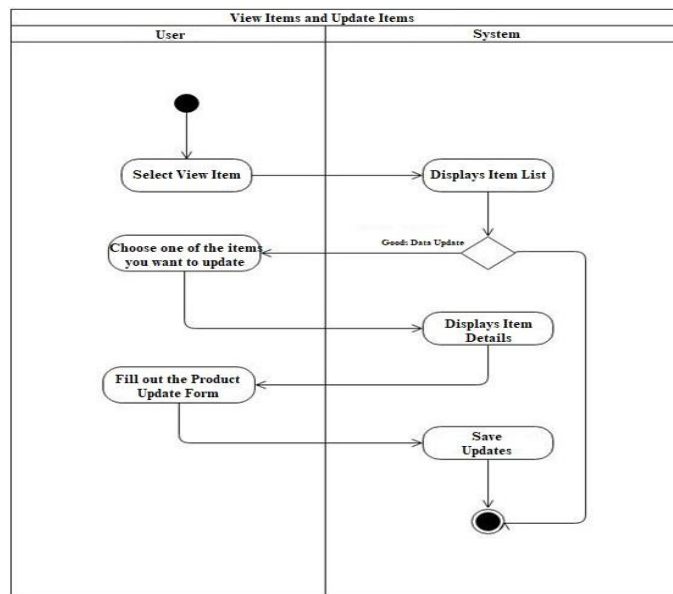


To design a Use Case Diagram in the design and analysis of CV XYZ Point of Sales information systems, we must first understand the main actors and functions involved in the system.

The actors involved in this system are the Sales Department, the Purchasing Department, and the Store Manager. The main functions contained in this system are adding sales, adding purchases, and generating reports related to sales, purchases, and inventory.

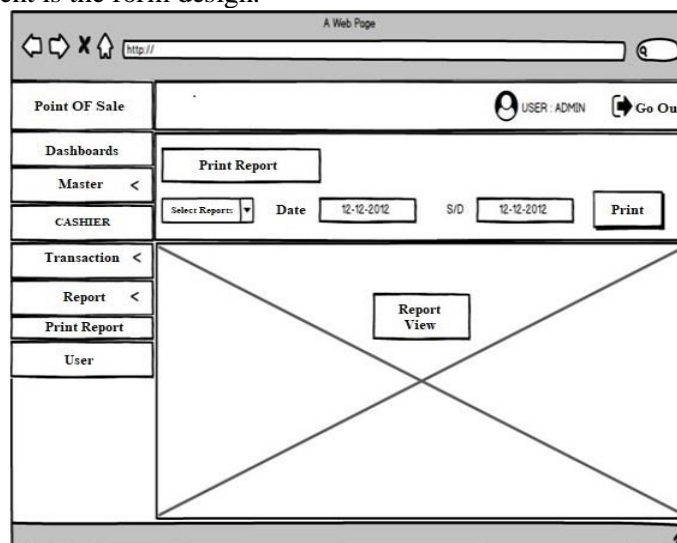
Designing Activity Diagrams

Untuk merancang Activity Diagram pengguna pada perancangan dan analisis sistem informasi Point of Sales CV XYZ, kita dapat mempertimbangkan beberapa aksi atau aktivitas yang dilakukan oleh pengguna dalam menggunakan sistem. Berikut adalah contoh Activity Diagram pengguna pada sistem Point of Sales CV XYZ:

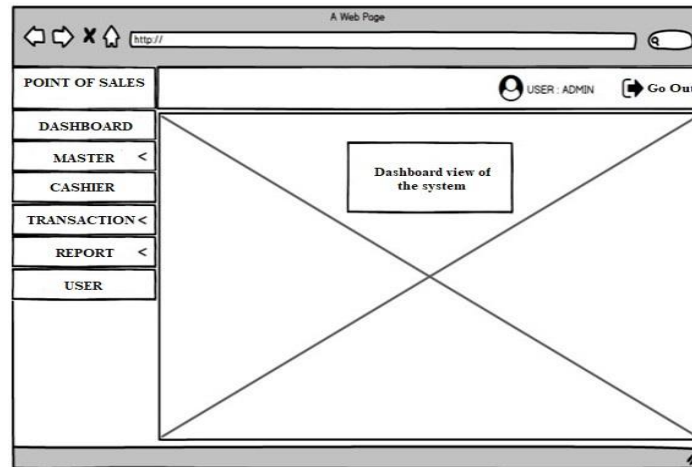


Form Design

In the design and analysis of CV XYZ Point of Sales information systems, one important component is the form design.



Gambar 1 Form Design Print Report



Gambar 2 Form Design Dashboard

CONCLUSION

The design and analysis of the Point of Sales (POS) information system at CV XYZ has been successfully carried out in this research. Through observation and interviews, the current business processes and user needs related to sales management at CV XYZ were identified, which then became the basis for designing a new POS information system that could meet these needs.

The new POS system designed in this research has several features such as inventory management, sales recording, customer management, and sales reporting. The user interface is designed to be user-friendly and easy to use, which can help reduce errors and increase efficiency in sales management processes.

The implementation of the new POS information system is expected to bring several benefits to CV XYZ, including more efficient and effective sales management, easier access to sales data and reports, and improved decision-making processes. The new system is also expected to help reduce errors and delays in sales management processes, which can ultimately improve customer satisfaction.

Overall, this research has successfully designed and analyzed a new POS information system that can meet the needs of sales management at CV XYZ. Further research can be conducted to evaluate the effectiveness of the new system after its implementation.

SUGGESTION

Based on the results of this research, there are several suggestions that can be proposed for the implementation of the new POS information system at CV XYZ. These suggestions include:

1. Conducting user training: As the new system has a different user interface and features compared to the previous system, it is important to provide training to staff members who will be using the system. This can help reduce errors and increase efficiency in the use of the new system.

2. Conducting system testing: Before the new system is fully implemented, it is important to conduct a thorough testing process to ensure that the system functions properly and can meet the needs of the business processes at CV XYZ.
3. Conducting a pilot test: A pilot test can be conducted to test the new system in a limited scope before being fully implemented. This can help identify any issues that may arise during the implementation process and allow for adjustments to be made before the system is fully launched.
4. Continuous improvement: After the implementation of the new system, it is important to continue monitoring and evaluating the system to identify areas for improvement and to ensure that the system continues to meet the changing needs of the business processes at CV XYZ.

Overall, these suggestions can help ensure the successful implementation and long-term use of the new POS information system at CV XYZ.

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