



ILOCOS SUR POLYTECHNIC STATE COLLEGE

**DEVELOPING A COMPUTER-BASED STOCK MANAGEMENT SYSTEM
FOR CLEOFEL ENTERPRISES AND CONSTRUCTION
DANUMAN EAST, STA. MARIA, ILOCOS SUR**

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CHAPTER I

INTRODUCTION

Effective management of raw materials and finished products is quite essential for running a business efficiently and profitably. Stock management strategies and decisions become particularly important in businesses where management costs form a sizeable part of total marketing costs.

Stock Management System comes in different categories and views. All we know is that Stock Management is being done by vendor's especially big companies. What we do not know is that even at our home we can make a Stock Management of our resources.

At a more sophisticated level, all retailers, supermarkets, manufacturers, and others need computerized stock management systems to keep them informed about their stock levels: how much they have of each item on hand, how much they need to order, how much they have ordered and when the order is expected, how much they should order to make it economical to ship or buy, and so on. Many stock management systems also provide the ability to plan stock levels months or years in advance, play what-if scenarios with stock levels, determine the best incoming shipping routes, maybe also if they're a distribution company to determine the best way or ways to distribute their stock.

However, problems are encountered with business; they occur unexpectedly and sometimes divert paths towards development.

At this time, people tend to deal with more advanced technologies. Innovation like computer can help so much in improving the people's way of living, and keeping their



- What problems are encountered in the current system?
- How can a computer-based stock management system improve the efficiency and flow of operation of the Cleofel Enterprises and Construction?
- What features and functions should be integrated to a computer-based stock management system?

Significance of the Study

The computer-based stock management system will benefit the owner of the company, the employees, and customers of Cleofel Enterprises and Construction by providing a more efficient way of managing their stocks and improving records management. The computer-based stock management system will help the owner of Cleofel Enterprises and Construction in monitoring closely their stocks and in managing wisely the movement of supplies.

The study also enables the researchers to acquire knowledge, experience and skill in developing information system for business organizations.

Scope and Delimitation

The boundary defined in the project study is moving around the stock management of Cleofel Enterprises and Construction, specifically on the fast and slow moving items. The system will focus on the recording of incoming and outgoing stocks and the suppliers. It does not include billing of transactions. The study does not include the implementation of the system at Cleofel Enterprises.



Definition of Terms

Stock Management System. A system that is rooted in data management, enabling the merchant to systematically track their inventory, such as in warehouses and retail outlets.

Management System. The framework of processes and procedures used to ensure that an organization can fulfill all tasks required to achieve its objectives.

Stock.

Management. The process of getting activities completed efficiently and effectively with and through other people.

Stock Control. The method of determining how much stock should be held and how much needs to be reordered and when, with the aim of controlling stock holding costs while maintaining efficient operation of the business.

Database. A structured collection of records or data that is stored in a computer system so that a computer program or person using a query language can consult it to answer queries. The term database refers to the collection of related records, and the software should be referred to as the database management system or DBMS.

Entity-Relationship Diagram. A modeling tool used in modern database software engineering to illustrate the logical structure of a database.

System Development Life Cycle (SDLC). The process of developing information systems through investigation, analysis, design, implementation and maintenance. SDLC is also known as information systems development or application development.

Data Flow Diagram (DFD). A graphical representation of the "flow" of data through an information system.



Theoretical Framework

As shown in Figure 1, the theoretical and conceptual framework paradigm describe the flow of the study. The current stock management system of Cleofel Enterprises and Construction served as a basis of thorough definition of an appropriate system model. Researchers then used the system engineering model to analyze the gathered data, define the data flow of the system, design and test the system so as to come up with a new computer-based stock management system for the Cleofel Enterprises and Construction.

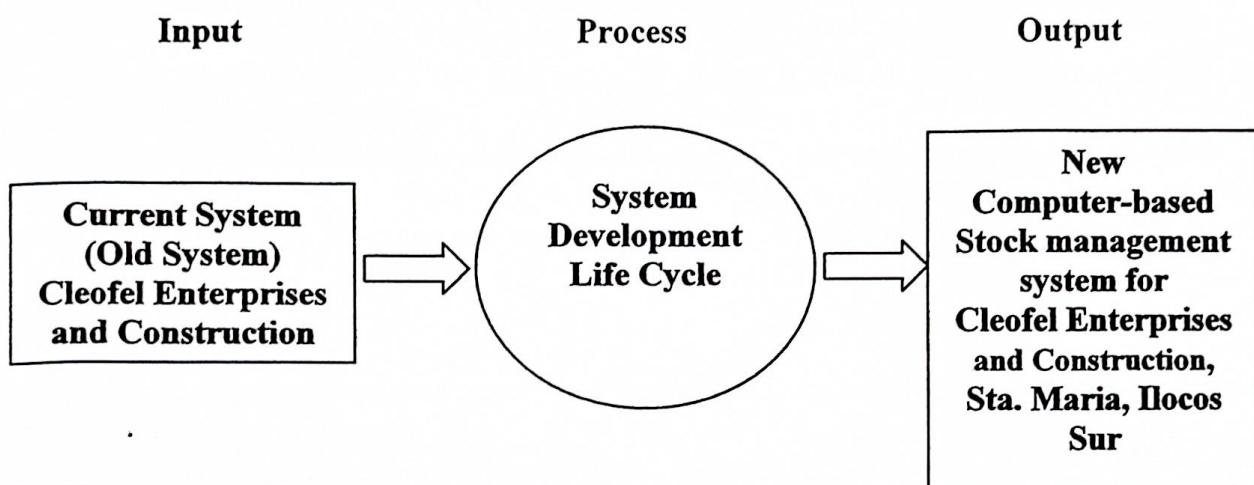


Figure 1. Conceptual paradigm



CHAPTER II

REVIEW OF RELATED LITERATURE

Stock Management Systems

Stock Management System is the term used in the U.S. to describe the assets of the company that are intended for sale in the ordinary course of business, are in the processing of being produced for sale, or are to be used currently in producing goods to be sold.

To fit manufacturing companies as well as merchandizing companies, Stock Management System means “the aggregate of those items of tangible personal property which (1) are held in the ordinary course of business (2) are in the process of production for such sale or (3) are to be currently consumed in the production of goods or services to be available for sale.

It is one where we can trace and manage all ins and outs of stocks and assets. Automation is one where in we only need to put in Purchases and Sales.

One way of systems analyst can define proper system boundaries is to use an entity-relationship (E-R) model. The elements that make up an organizational system can be referred to as entities. An entity may be a person, a place, or a thing; such as passenger on an airline, a destination, or plane. Alternatively, an entity may be an event such as the end of the month, a sale, or a machine breakdown. Relationship is the association that describes the interaction between the entities.

Effective management of finished product management is quite essential for running a business efficiently and profitably. Stock management strategies and decisions become



particularly important in businesses where management costs form a sizeable part of total marketing costs.

Stock Management System comes in different categories and views. All we know is that Stock Management is being done by vendor's especially big companies. What we do not know is that even at our home we can make a Stock Management of our resources.

At a more sophisticated level, all retailers, supermarkets, manufacturers, etc. need computerized stock management systems to keep them informed about their stock levels: how much they have of each item on hand, how much they need to order, how much they have ordered and when the order is expected, how much they should order to make it economical to ship or buy, and so on. Many stock management systems also provide the ability to plan stock levels months or years in advance, play what-if scenarios with stock levels, determine the best incoming shipping routes, maybe also if they're a distribution company to determine the best way or ways to distribute their stock.

System Development Life Cycle

System Development Life Cycle (SDLC) is the process of developing information systems through investigation, analysis, implementation, and maintenance. SDLC is also known as Information System Development or Application Development.

Data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system. A data flow diagram can also be used for the visualization of data processing (structured design). It is common practice for a designer to draw a context-level DFD first which shows the interaction between the system and outside entities. This context-level DFD is then "exploded" to show more detail of the system being modeled.



SDLC waterfall model was used in making this research. It is one of the earliest models on system development. The model presents a view of what goes on during development. Researchers completed each stage before the next begins. It helps the researchers to monitor the progress of this research. By using this model, the researchers come up with a computerized system through the lay-out of what is needed to be done.

The diagram below shows the traditional or Waterfall Life Cycle that the researcher used in the study.

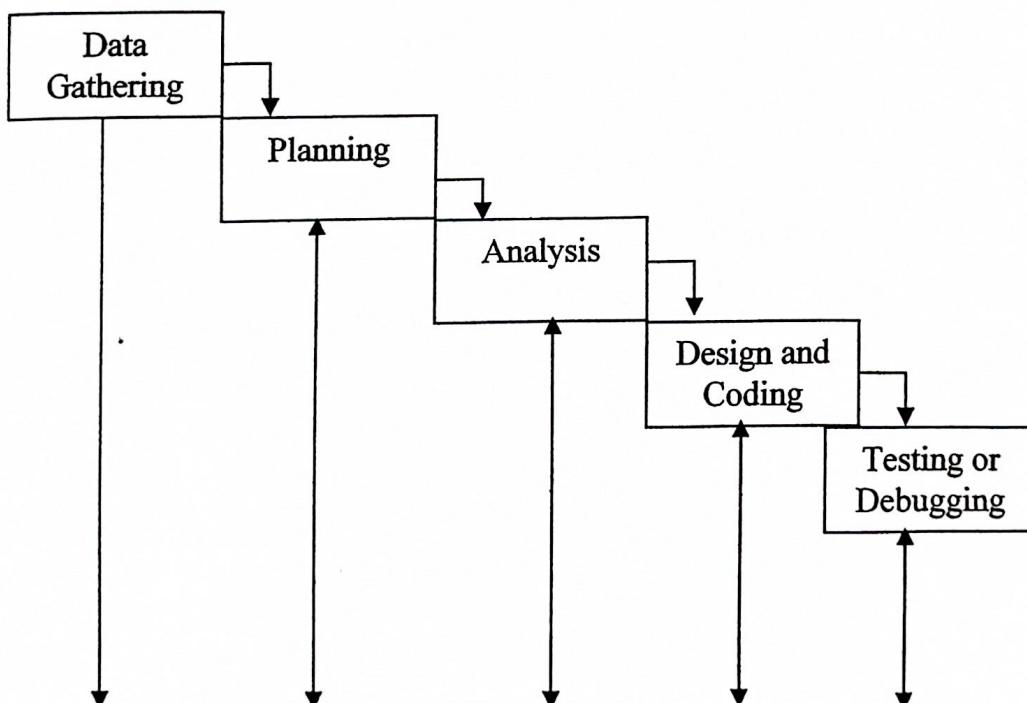


Figure 2. System Development Life Cycle



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