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INTEGRATED SCHOOL COOPERATIVE MANAGEMENT (ISCOOP)

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ABSTRACT

In this information and communication technology (ICT) era of the twenty-first century, all organizations are gradually resorting towards the implementation of computerized information systems. For the past decades, information systems have proven their usefulness and accountability in enhancing productivity and profitability in numerous organizations, especially through the automation of some or most of the administrative works and routine tasks. With this in mind, most schools and colleges have also taken steps to integrate the various parts into an entire system with the facilities they possessed, especially computers and network technologies and expertise. Through the modernization brought by computer technologies, humans nowadays are looking forward to better living via automation and computerization.

In our final year project, we have proposed and developed an automated system for school cooperatives to increase productivity and enhance the existing manual system. This is done to improve the quality of cooperatives' administrative management and daily operation. The Integrated School Management System (ISCOOP) can support all major administrative works,

thus enabling it to integrate and share information in daily operations, and for effective and efficient planning and decision making throughout the system.

ISCOOP is aimed at eliminating redundant and repetitive data in the system. Specific data will be processed once and will be propagated throughout the whole system.

CHAPTER ONE: AN OVERVIEW

1.1 Introduction

In this fast-growing information society, various computer technologies and information systems have gained popularity in business, government and service organizations. Among them is school cooperatives which have been established to provide a sense of business concept in schools apart from giving services and facilities to students. In view of recent development in computer technologies, school cooperatives are also undergoing automation processes to increase performance and provide services to its clients. At the moment, school cooperatives are still engaging manual system which is rather time consuming. Upon encouragement from the education department, all schools have set up their school cooperatives to meet the demands of the school community. At the same time, a computerized system has also been introduced to cater for the increasing information needs. However, it was found that current systems are not user-friendly and the demands of management are not met. In view with this, we have proposed ISCOOP which is a more use-friendly system with various extra features that enable decision making and information sharing.

1.2 Literature Reviews

Inventory management has a tremendous influence on the ultimate cost of a product because it handles the total flow of material in an organization. The total flow can extend from supplier to production and subsequently through distribution centers to customers. Inventory exists because supply and demand are difficult to synchronize perfectly and it takes time to perform materials related operation. For several reasons, supplies and demands frequently differ in the rates at which they respectively provide and require stock. These reasons can best be explained by four functional factors of inventory- time, discontinuity, uncertainty and economy.

We are reviewing the current manual system of SMK ST. Augustine Cooperative Inventory Management System and the existing computerized system which are Chrysanth Inventory Manager 2001 and Small Business Inventory Control.

The purpose of SMK ST Augustine Cooperative Inventory Management System is to manage the inventory of the cooperative manually. The functions of the cooperative are stock management, purchase management and sales management.

Chrysanth Inventory Manager 2001 is designed specially to meet the demanding requirements of small to medium sized business environment, such as general retail and distribution channels, showroom based outlets and the like. Generally, Chrysanth Inventory Manager 2001 provides complete inventory management cycle, with the following features: Decision Support Analytical Reports, Intelligent Inventory Tracking System, Analytical Grid Layout, Bill Of Materials, Daily Business & Transaction Documents, Multiple price scheme management, Tracking stock flow, Multiple stock Evaluations, Prudential inventory level management, Multi-Dimensional Stock Movement Analysis.

Small Business Inventory Control is a year 2000 compliant business inventory application designed specifically for small and home based business owners or managers. This application combines an easy to use explorer-style interface with powerful features necessary to manage our business's inventory. The features of Small Business Inventory Control are Vendor Information, Item Information, Orders, Sales and Reports.

After reviewing existing systems, we make a comparison among these three systems based on their features, input/output and functions.

Functions	Features	SMK ST. Augustine Cooperative (Manually)	Chrysanth Inventory Manager 2001	Small Business Inventory Control
Purchase	Keeping Purchase Records	√	√	√
	Decision Support		√	√
	Making query		√	√
	Generate Purchase Reports		√	
	Generate Purchase Analysis Reports		√	
	Generate Purchase Notes			
Stock	Keeping Stock Records	√	√	√
	Decision Support		√	
	Making query		√	√
	Generate Stock Reports	√	√	
	Stock alert		√	
Sales	Keeping Sales Records		√	√
	Keeping Counter's Stock Records			√
	Decision Support		√	√
	Making query			√
	Generate Sales Reports		√	√
	Generate Sales Analysis Reports			√
	Generate Cash Delivery Notes	√		
	Identify customer performance		√	

Table1.1 Comparison of three existing systems

1.3 Problem Statements

The SMK ST. Augustine's school cooperative is still engaging the manual system of operating its daily business and inventory management. Consequently, its operations are restricted because there is no coordination between the different functions such as sales, purchase and order and stock keeping. Thus, the cooperative is facing ineffectiveness in its inventory management. As a result, it is hard to identify and detect the person who is actually in-charge of the stock-in and stock-out inventory, as well as difficult to track the amount or quantity of inventory for stock-in and stock-out purposes. Apart from this, there is no way to identify and differentiate the various categories that actually can be classified in the same inventory. This ineffectiveness is due to the lack of stocking alert for ordering, organized daily income and various reporting for decision-making.

1.4 Objectives

The objectives of this project are listed as below:

1. To study, understand, discover and identify the problems, requirements and specifications of the current inventory management in the SMK ST. Augustine's School Cooperative.

2. To analyze and design an Integrated School Cooperative Inventory Management System for SMK ST. Augustine, Betong, Sarawak.
3. To develop a working prototype of the Integrated School Cooperative Management System.(ISCOOP)

1.5 Scope

The scope of this project is to design and develop an information system for the school cooperative with SMK ST. Augustine's School Cooperative as our case study. The development of the Integrated School Cooperative Management System (ISCOOP) covers four basic modules, namely: stock inventory, purchase inventory, point-of-sales and bonus point. The functionality of ISCOOP is mainly to store, organize, process, manipulating transaction data and decision-making.

1.6 Procedure/Methodologies

The methodology used in building and constructing the proposed system, the Integrated School Cooperative Management System (ISCOOP) is the Systems Development Life Cycle (SDLC). System planning, System analysis, System design, System implementation and

System maintenance and support are the five basic phases in the System Development Life Cycle (SDLC).

1.6.1 Phase I: System Planning

In the planning stage, we have identified and responded to the various problems faced by SMK ST. Augustine's school cooperative since its establishment. After visiting the school, we have determined the objectives of our project through interviews which were held between us and the board of management of the school cooperative, especially with the Chairman of the cooperative, and the students in that school. At the same time, we determined the information requirements for our project. This includes sending out questionnaires to the people related to the project in order to find out the problems and their opinions toward the project. We also interviewed the school Principal, school cooperative committee members and the students responsible in carry out the daily operation of the cooperative. Furthermore, we also carried out a fact-finding activity to collect and gather information related to this project which includes samples of stock-keeping records, purchase records and invoices. In addition, we also observe the daily operation of the cooperative to help us to identify and determine the real problems that exist.