INTELLIGENT INVENTORY SYSTEM FOR KOPERASI UNIVERSITI UTARA MALAYSIA BERHAD

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ABSTRAK

Persaingan global dan perubahan keperluan pengguna yang meningkat telah membawa perubahan dalam corak pengeluaran dan konfigurasi Sistem Inventori. Tambahan pula, Sistem Inventori dan mekanisma kawalan tradisional secara berpusat dan berjujukan didapati kurang anjal untuk menyokong keperluan pengguna yang meningkat dan pelbagai. Pendekatan secara tradisional telah menghadkan keupayaan sistem inventori untuk berkembang dan untuk dikonfigurasikan semula. Teknologi ajen menyediakan kaedah untuk mengatasi masalah tersebut dan kaedah untuk direka dan dilaksanakan dalam persekitaran inventori pintar teragih. Projek ini akan menyokong pihak pembekal yang menyediakan penyelesaian yang membenarkan Koperasi UUM Berhad untuk menguruskan inventori secara pintar melintasi jaringan rangkaian, berdasarkan keperluan terkini. Objektif utama projek ini adalah untuk memperbaiki kualiti perkhidmatan bagi meningkatkan produktiviti pengguna, memastikan perhubungan baik antara sumber dan kehendak pengguna, mengurangkan bajet dengan meningkatkan ketepatan pesanan dan mengawal penggunaan sumber. Oleh itu, tahap pengurusan yang lebih baik dapat dicapai dengan penghasilan laporan harian secara automatik.

ABSTRACT

Global competition and rapidly changing customer requirements are forcing major changes in the production styles and configuration of Inventory System. Increasingly, traditional centralized and sequential inventory system and control mechanisms are being found insufficiently flexible to respond to highly dynamic variations in customers requirements. The traditional approaches limit the expandability and reconfiguration capabilities of the Inventory Systems. Agent technology provides a natural way to overcome such problems, and to design and implement distributed intelligent inventory environments. This project is going to support supply-side replenishment solution that allows Koperasi UUM Berhad to intelligently manage inventory across the supply network, based on the latest demand. The objectives of this project are to improve the quality of services so as to increase user productivity, ensure the best relationship between resources and user needs, reduces budget by increase promised-to-order accuracy and monitoring the use of resources. As a result, a better management is achieved by producing an automatic daily inventory report.

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LIST OF TABLES

Page

LIST OF FIGURES

TABLE OF CONTENTS

Page

CHAPTER 1

INTRODUCTION

1.1 OVERVIEW

In this chapter, the first section describes the context of the study that gives an introduction to Intelligent Agent and its application. The second section presents the statement of purpose, while third section presents the objectives of the study followed by study significance and the scope of the study . Finally, the study requirements and tools is presented.

1.2 THE CONTEXT OF THE STUDY

Global competition and rapidly changing customer requirements are forcing major changes in the production styles and configuration of Inventory System. Increasingly, traditional centralized and sequential inventory system and control mechanisms are being found insufficiently flexible to respond to highly dynamic variations in customers requirements.

The traditional approaches limit the expandability and reconfiguration capabilities of the Inventory Systems. Agent technology provides a natural way to overcome such problems, and to design and implement distributed intelligent inventory environments.

Recently, agent technology has been considered as an important approach for developing industrial distributed systems (Jennings *et al.,* 1995). A number of researchers have attempted to apply agent technology to enterprise integration, supply chain management, manufacturing planning, scheduling and control and materials handling.

Intelligent Agent (IA) is a software program that uses agent communication protocols to exchange information for automatic problem solving. IA might have services capabilities, autonomous decision, and commitments features.

The contents of the thesis is for internal user only

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