

INVENTORY MANAGEMENT AND CONTROL
AT AN IN-FLIGHT CATERING COMPANY

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Specially dedicated to my beloved husband, Mohd. Faizal bin Abd. Razak and my
dearest family
For everlasting love and care.....

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ABSTRACT

This report focused on inventory management and control at an in-flight catering company dry goods raw material store. The objective is to develop an inventory management and control procedure. ABC analysis was carried out to determine the frequency of stock check. Barcode system can improve the inventory control of the dry goods raw material stock. Forecasting technique based on the historical data can help reduce over stock of raw material. The implementation of the inventory control techniques can improve the inventory management and at the company. The techniques proposed have been validated by the expert.

Keywords: Inventory management and control; ABC analysis; forecasting; frequent stock check; barcode; in-flight catering

ABSTRAK

Projek penyelidikan ini menumpukan kepada penggunaan pengurusan dan pengendalian teknik inventori bahan mentah di dalam gudang syarikat katering penerbangan. Objektif pertama penyelidikan ini adalah untuk menyediakan prosedur sistematik pengurusan inventori dan ini telah dicapai dengan melakukan analisis ABC yang mengklasifikasikan inventori bahan mentah kepada kelas 'A', kelas 'B' dan kelas 'C'. Implementasi sistem 'barcode' telah mencapai matlamat tujuan kedua dimana untuk meningkatkan cara pengendalian inventori bahan mentah. Akhirnya, teknik peramalan (forecasting) berdasarkan sejarah data lampau telah membuat tujuan yang ketiga untuk mengurangkan inventori bahan mentah yang telah sampai tarikh luput sebelum digunakan. Pelaksanaan teknik cara yang tepat dapat meningkatkan pengurusan dan pengendalian persediaan pada barang kering gudang di dalam syarikat katering penerbangan. Dengan demikian, setiap organisasi yang menggunakan teknik ini membolehkan mereka untuk membuat pengurusan dan pengendalian inventori di syarikat mereka dengan lancar dan sentiasa terkawal. Teknik ini juga telah mendapat validasi oleh pakar-pakar di industri.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Inventory management is one of the most important business processes during the operation of a manufacturing company as it relates to purchases, sales and logistic activities. It concerned with the control of stocks throughout the whole supply chain. Inventory control sits at the data level where the day-to-day business is organized. Activities here are data driven and are primarily concerned with short-term planning and recording of events. Inventory control is concerned with maintaining the correct level of stock and recording its movement. It deals mainly with historic data.

1.2 Inventory Management

Inventory is generally considered to comprise in three main areas which are raw materials, work in progress and finished goods. Where these are held and in what quantities, and how they are managed will vary significantly from one organization to another. The activities of inventory management involves are identifying inventory requirements, setting targets, providing replenishment techniques and options, monitoring item usages, reconciling the inventory balances, and reporting inventory status.

In order to have clear inventory management, a company should not only focus on logistic management but also on sales and purchase management. Inventory management and control is not only the responsibility of the accounting department and the warehouse, but also the responsibility of the entire organization. Actually, there are many departments involved in the inventory management and control process, such as sales, purchasing, production, logistics and accounting. All these departments must work together in order to achieve effective inventory controls.

In-flight catering company should adopt appropriate inventory management system to ensure the quality of the food supply. Flight catering is unlike any other sector of the catering industry. While the way food is served on trays to airline passengers bears some resemblance to service styles in restaurants or cafeterias, the way food is prepared and cooked increasingly resembles a food manufacturing plant rather than a catering kitchen. The way food and equipment is stored resembles a freight warehouse, and the way meals and equipment are transported and supplied has a close affinity to military-style logistics and distribution systems. Therefore, inventory management is one of the greatest challenges facing by an in-flight caterer (McCool, 1996).

1.3 Background of the Research

This project will investigate problems associated with inventory management and control at the warehouse of in-flight catering company. Inventory control in this company is seen as the management function – forecasting, determining requirements, setting targets and issuing instructions – whereas the monitoring of stocks in the warehouse is seen as a supervisory function that requiring less skill and experience. And yet, if the management and control is overlooked or given less than its due consideration, the feedback information, on which management depends to determine the effect of its instructions, is unreliable and gives no indication as to the quality of the inventory management. This project attempt to provide management with recommendations to improve operations and reduce errors. The need for rapid and accurate management and control of inventory is a vital part of the process of remaining competitive.

1.4 Problem Statement

Flight catering is one of the most complex operational systems in the world with high volume operations. For instance, a large-scale flight catering production unit may employs over 800 staffs to produce as many as 25 000 meals per day during peak periods. A large international airline company may have hundreds of takeoffs and landings every day from just their main hub. Therefore, it is very clear that flight caterers handle a considerable volume of products on a daily basis (Jones, 2004 and McCool, 1995). Below are some of the problems facing by in-flight catering company in their inventory management system.

- i. Holding too much stock adds costs to the business and some other problems such as expiry date and material handling will add cost and reduce efficiency.
- ii. The record of the inventory does not tally with the actual stock count in the warehouse.

Therefore, effort is needed to address the stated problem. Development of a systematic inventory management and control can reduce or eliminate those problems and consequently would improve the in-flight catering business.

1.5 Methodology

It is important in research strategy to select methods that fit the type of research question being asked. This case study investigates the inventory management and control problems at in-flight catering company. The study has been carried out at one of the in-flight catering company in Penang. Data was collected by interviewing people, observing of the organization practice, studying documents and analyzing numerical data.

There was report that the dry goods raw material warehouse has inventory control problem and academic perspective was adopted to approach the problem. First, the current inventory control at the warehouse was studied. Second, the current inventory practice was analyzed to determine factors contributing to inventory management and control problem. Third, from the main causes of the inventory problem, recommendations for improvements were forwarded. The recommendations mainly cover improvements at the warehouse only which is aimed to be more effective to improve the operation at the in-flight catering company.

1.6 Objectives

The aim of this research is to investigate inventory management problem at the store of in-flight catering company. Three objectives for this project are:

- i. To develop a systematic procedure of inventory management and control.
- ii. To improve the inventory control of dry goods raw material stock.

1.7 Scope

The scope of the project covers inventory management and control at in-flight catering company. This research only focused on the inventory management and control at the store of dry goods raw material. The processes at the production line are not considered.

1.8 Outline of the Report

Chapter One describes the background of the project problem statement, research objectives and scope of research. It also explains the overview of the chapters in the report. Chapter Two describes literature review in the field of in-flight catering and

inventory management and control of raw material stock. Chapter Three discusses the problem solving steps using certain method to solve the problem identified. Chapter Four presents the data collection from the in-flight catering company data analysis. Chapter Five presents the results of the analysis and proposed solutions for each of the problem identified. All the proposed solutions will be validated by the expert to ensure that the proposed solutions are usable and valid. Chapter Six is the conclusion of the study. The significant of the research will be highlighted and the research implication and contribution are also described. Then, the limitations and the recommendation for future works are explained.

1.9 Summary

The flight catering industry has to constantly cope with both high volume and variety. This project will propose solutions to the problem that have been highlighted on inventory management and control. This research only focuses at the dry goods raw material store.