

## CHAPTER 1

### INTRODUCTION



#### Background

Inventory management becomes crucial part of any organizations today. Better inventory management means better profitable and healthy organizations. Just like other organizations, Telephone Organization of Thailand (TOT) realizes about the essential of good inventory management. As today TOT faces an unsatisfactory inventory management, TOT need proper actions to improve the efficiency of inventory management.

Currently, TOT warehouses are located in different locations among urban areas. The number of stocking locations are rose many unforeseen problems to TOT. In addition, severe traffic congestion around existing warehouse locations could increase transit time. Not only issues of time but the current locations in business areas also rise another challenge issue for TOT. Since land price is soaring up during last 10 years, TOT warehouses land become more and more expensive. Instead of using this valuable land for other purposes, TOT uses it just for storing purpose. TOT has to lose big amount of opportunity costs and unable to recover at this moment.

To improve inventory management and eliminate such problems, TOT plan to establish a new center warehouse, 174 rais in Pratumthani province. This center warehouse will have a sufficient storage capacity to hold all stocks from other existing warehouses and will located in the suburban area where cost of land is relatively low. However, moving to new location is absolute not the only solution to increase the efficiency of inventory management. TOT strongly need an additional implementation plan regarding inventory control and area utilization in order to maximize the advantage of new center warehouse.

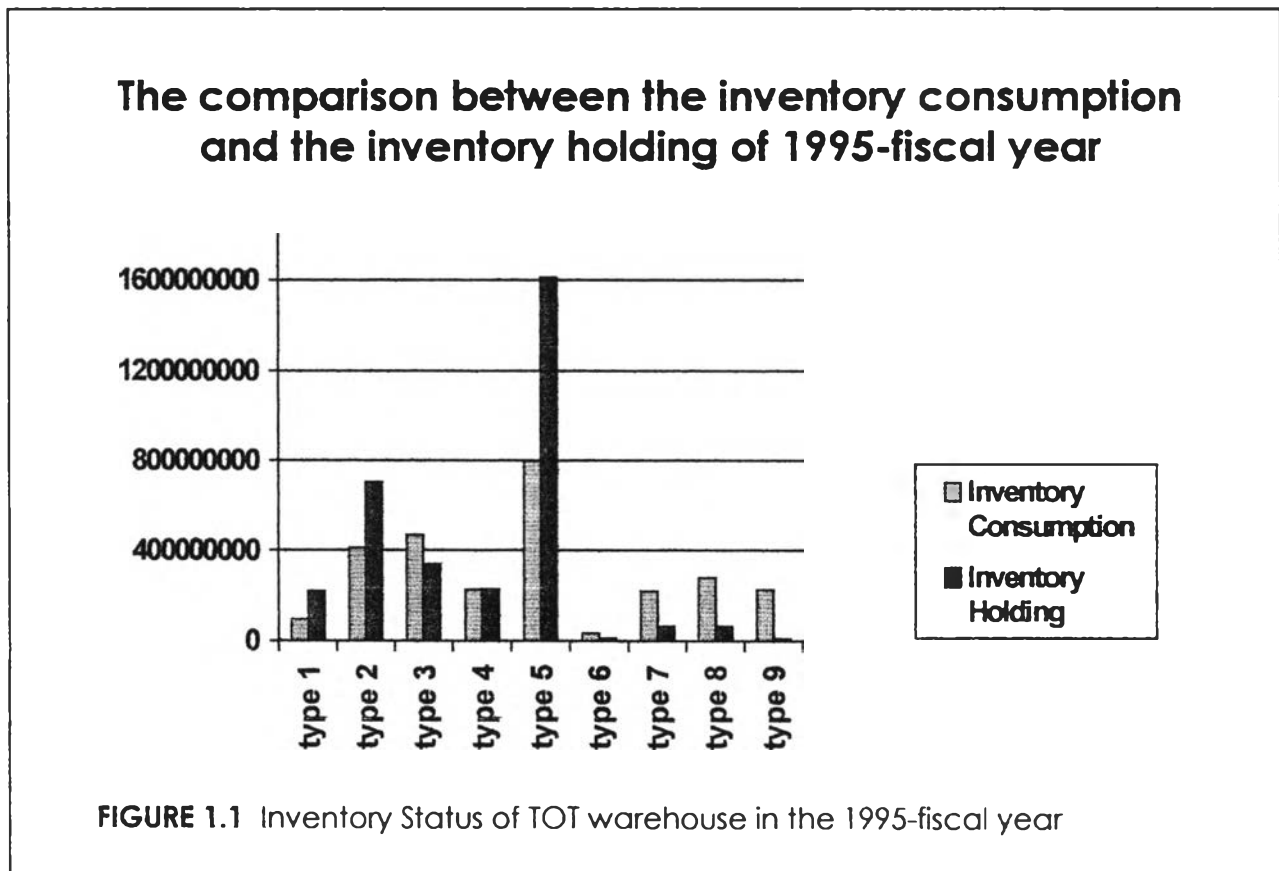
This study envisages to support TOT developing effectively implementation plan regarding inventory holding, area utilization.

## Statement of Problems

### High inventory value

In 1995, there were thousand of SKUs (Stock Keeping Units), in value of 3,000 million baht, holding in all TOT warehouses. Some items had no turnover at all. Sunk cost are unacceptable high.

Following are shown the inventory status among the TOT warehouses.



Source : Telephone Organization of Thailand

According to inventory status shown in figure 1.1 Type 5 inventory has the highest value, in comparative with other types.

## Objective of Research

1. To determine optimum inventory level
2. To allocate warehouse's space and design the equipment for storing the specified parts

### **Scope of work for the research**

1. Considering only the relevant items for the Stored Program Control System (SPC) of the first 20 type 5 inventory which has the highest inventory value.
2. Considering parts that have historical data more than 12 months.

### **Procedure of the Research**

1. Literature survey
2. Collect data from TOT and other significant sources.
3. Analyze data.
4. Define the optimum inventory level.
5. Allocate area and design the equipment for storing the specified spare parts.
6. Evaluate the results
  - Comparison between before and after changing procedures
  - Evaluate the ease for storing and distribution
7. Write the draft report and make final revisions
8. Finish the final report

### **Expected Benefits from the Research**

1. Maximize the efficiency of area utilization in the Pratumthani warehouses.
2. Increase the efficiency of controlling for the mentioned inventories.
3. Reduce the sunk costs of inventory
4. Be a guideline for other types of TOT inventory management
5. Be a guideline for other types of warehouses.