Chapter 1

INTRODUCTION

There are many products that are provided by oil companies such as gasoline for vehicles, bunker oil for boilers in the factories, lubricants oil for both of vehicles and factories. In this study, the bunker oils in factories was considered. For the vehicles, the oil company doesn't need to invest any equipment for their customers because the customers have opportunities to choose the products among many oil brands. In the case of bunker oil, which need storage, because of the bulky volume used, the factory owners have two choices. Firstly, they could invest all by themselves for the tanks, equipment including the operating and maintenance cost. Secondly, the oil company could invest and bare the whole cost including maintenance and service. The problems that will occur for this decision are difficulties to change oil brands and to negotiate for lower price of bunker oils.

The investments that the oil company may invest for customers are:

- Tanks and their equipment including installation costs
- Services after installation including maintenance, services and cleaning costs
- Training cost for safety use of bunker oils

Therefore, the oil company must consider the economic appropriateness when deciding whether to invest.

1.1 The problem areas

The investment costs are the cost that the company wants return back as fast as possible. At present, the investment scheme used by the company under investigation was far from perfect. Some investment was lost and some investment took a long time to payback. The calculation method that the company used was the balance equation of cash outflow and cash inflow. It was not a complete equation because some costs were not included in the equation such as maintenance and services costs. Usually these cost does not occur at the inception, but will incur after the installation is finished. A part of cash inflow was calculated from the margin that varied following the cost of products and market environment. The market environment has a major impact. The main problems come from the estimation of the market impact such as inflation, competitor effect, oil demand, supply effect and so on, to be included in the equation.

1.2 Objective

The objectives of this study were:

- to forecast the margin from selling bunker oil
- to study the feasibility of investing the equipment from the oil company's perspective

1.3 Scope for study

The scope of the study was:

- To limit only on bunker oil type A
- only equipment and maintenance cost are provided for customers

1.4 Procedure

1. Study over all steps and system
2. Evaluate and study the margin
3. Forecast the cash inflow and cash outflow
4. Test the result by using the old data
5. Apply into computer software
6. Test overall system
7. Evaluate and conclusion
8. Write a report

1.5 Expected benefits

The expected benefits for the company are:

- Can control the budget of investment for customers
- Can calculate the fastest payback period after investment
- Can decide that the company should invest or should not invest for each customer easily
- Can predict the margin that the company will receive after investment

1.6 Literature survey

Chantana Chantaro and Sirichan Thongprasert., 1989.

This book explains about project feasibility study for business and industry project. It concerns about marketing, engineering, financial management, economic and business environment effect.

Virapon Suwannut., 1981.

This book shows about project feasibility study by analysis in each item of plan & project, benefits-expenditure and costeffectiveness. In each item, it explains by examples and calculation methods.

Tawatchai Aarncharnchai., 1992.

This thesis shows about an engineering economic analysis for setting up anew plant in small-type industry. The engineering economic for setting up a new plant composes with education and evaluation the factors of a plant and education the suitable environment of the plant.

Chitarpar Rattanavaraha., 1994.

This thesis is about project management for setting up an automobile brake factory. Firstly, the feasibility study was applied by study in marketing, engineering, management and investment. After the first step, this project is shown that it is very interested for investment. Hence, the Harvard project manager programming was applied for achievement this project management. This programming is the important factor for the project success.

Prasit Tongyingsiri., 1995.

This book shows about project analysis and appraisal of economics and finance. Economic analysis emphasizes on net profit for social from the project. Finance analysis emphasizes on benefit of money.

Sureeporn Surat., 1995.

This thesis is about cost-benefit analysis for investment decision in the exported seafood industry. It educated on three sizes of production for choosing the best one. The criterions for decision are net present value, internal rate of return and benefit-cost ration.