



CHAPTER I INTRODUCTION

Generality

Petrochemical products play a big role in our daily lives. Examples of these products are : plastics in the form of bags, kitchen wares, furniture, etc., cloth, paint, gasoline, etc.. Petrochemical production processes are complex and consequently, materials constantly need to be supplied and processed at various locations. Tank farm is one of the major components in the distribution systems of petrochemical products. Tank farm usually provides services for loading and unloading of ships and tanktrucks, storage, drum filling, pipeline transportation and tanktruck transportation.

Today's businesses are highly competitive. This is also true in tank farm business. How one tank farm can be attractive over the other tank farms, the selection criteria and competitive strategies will be studied.

In Map Ta Phut, which is strategically located on the Eastern Seaboard of Thailand, there are many petrochemical factories. They have to import or export some liquid products, but only a few of them are located right at the seaside with their own jetty for loading and unloading of ships. All the other factories have to rent tanks and jetty from independent tank farm operators.

Independent tank farms established at Map Ta Phut do not have customers only at Map Ta Phut, their customers are also found as far away as Bangkok. In Bangkok, the potential customers are chemical trading companies. They import chemical products by ship and distribute the products to their customers by truck. The composition of independent tank farm customers can be shown as follows :

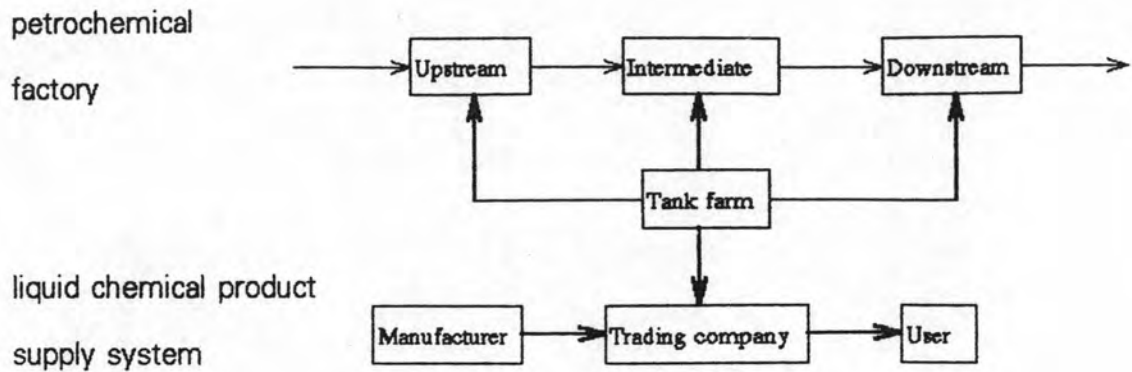


Figure 1.1 Tank farm customers

Figure 1.1 shows that the tank farm customers are in two sectors, petrochemical factory (complex), and liquid chemical product supply system. In liquid chemical product supply system, most of the manufacturers are abroad, therefore, tank farms (in Thailand) do not serve them. The users in the supply system have their own storage tank in their factories and the products are transported by truck, therefore, they are not serviced by tank farm.

Objectives

The objectives of this study are as follows :

1. to find out what are the criteria that make the tank farm attractive to its customers and rank those criteria.
2. to establish customer requirements and competitive strategies.

Scope

1. Although tank farm can supply many liquid or liquefied products, this study were concerned only with petrochemical and chemical products.
2. Only customers in Map Ta Phut Industrial Estate and in Bangkok will be studied.

Methodology

1. Studying of tank farms in view of services, facilities, and concerned companies.
2. Analytic Hierarchy Process (AHP) is used for determining criteria which tank farm customers attend for selecting tank farm, and weighing those criteria.
3. Establishing competitive strategies and customer requirements.

Expected Benefits

The benefits expected from the study are as follows:

1. The result on the relative importance of the criteria can be used to improve tank farm services.
2. Tank farm operators can apply the competitive strategies for their tank farms.
3. This study will provide test results on the application of Analytic Hierarchy Process (AHP) in industrial settings.

Organization of Study

This study consists of six major parts : introduction, review and survey of existing literature, typical and studied tank farm overview, criteria determination, criteria weighing and competitive strategies, and conclusions of the empirical results and further study's recommendations. The following are the details of overall organization of the study as illustrated in Figure 1.2.

Chapter I identifies the problems of tank farm operation, introduces tank farm services. Objectives, scope, methodology, and expected benefits are defined.

Chapter II contains the literature review, which consists of AHP application, conceptual approach to competitive strategy, marketing research steps.

Chapter III presents the overview of tank farms., which consists of the usage of tank farms, tank farm facilities, a list of tank farms in Thailand, independent tank farm services and its customers.

Chapter IV contains criteria determination. Criteria are collected, grouped into a hierarchy, and interpreted.

Chapter V contains the results of the weights given to each criterion and the resulting competitive strategies. Sample identification and selection are described. The weights are shown by Figures. The analysis of results in each level and overall ranking of criteria is discussed. Then, competitive strategies for tank farm operators are established.

Finally, conclusions and recommendations for further studies are presented in Chapter VI.

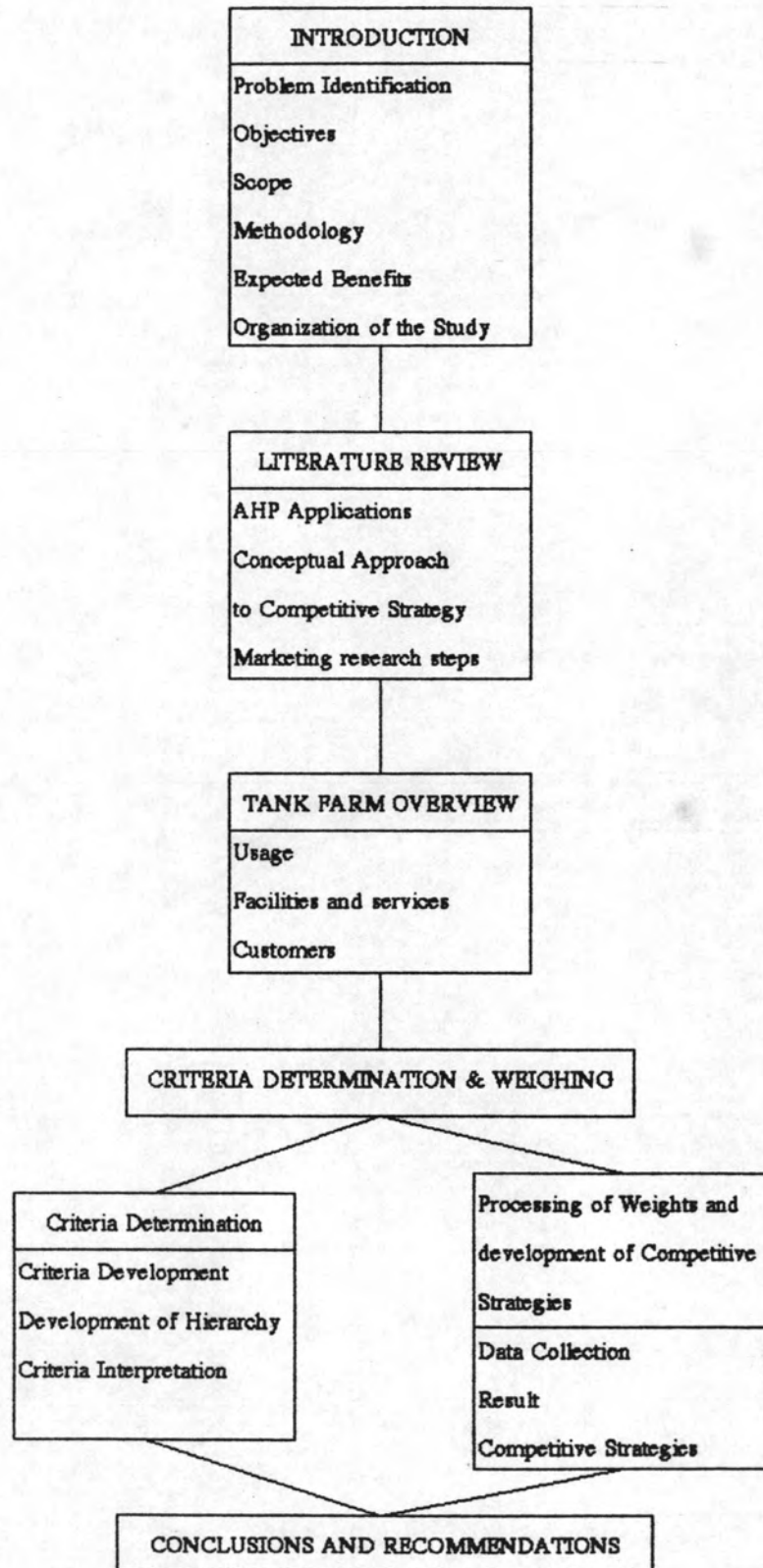


Figure 1.2 Organization of the Study