



## CHAPTER VI

### CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER STUDY

#### Conclusions

Tank farms are involved in logistic of liquid products. It can service petroleum, petrochemical, and chemical business. This study is concerned with tank farm customers which are petrochemical and chemical businesses in Map Ta Phut and Bangkok. The customer requirements of both these groups are studied.

As shown in this study, the Analytic Hierarchy Process can help provide a conceptual model to determine the criteria for selecting tank farm operators. The tank farm selecting criteria reflect the customer requirements. Those criteria are safety, facilities, storing procedure, service, cost, location. Safety, facilities, and storing procedure are very important for both Map Ta Phut and Bangkok customers.

In facilities, there are seven sub criteria which have two sub criteria outstanding different between for Map Ta Phut and for Bangkok e.g. pipeline transportation is essential for Map Ta Phut customers and tank truck transportation is essential for Bangkok customers. Berth size and draft, absence of ship congestion, and having variety of tanks are very important for both Map Ta Phut and Bangkok customers.

In storing procedure, there are two sub criteria e.g. loss control and contamination prevention. Contamination prevention is significantly more important than loss control.

In cost, there are two sub criteria e.g. operating cost and storing cost. Operating cost is significantly more important than storing cost.

The competitive strategies are established based on the criteria for selecting tank farm operator and other information gathered during interviews. The strategies include preparing the area for tank construction, increase the number of jetty, providing 500 cubic-meter spot tanks for Bangkok customers, providing tank truck transportation service carrying chemicals from Map Ta Phut to distribute to the users in Bangkok, offer bonded warehousing, providing laboratory for sampling test of products, serving the ships 24 hours a day for berthing, loading, and unloading, providing such value-added services as adding additives and agitation service in order to improve the quality of chemicals suit to local usage, and promoting the right image of the tank farm in the eye of the target customers.

#### Recommendations for Further Study

1. The executive managers involved in the study are required to have better understanding of the meaning of criteria, tank farm operation, and scope of tank farm activities. This can help increase efficiency of judgment in the interview process.
2. AHP is not yet well known by the executive managers so they may answer disagreeably. They often ask what the advantages of pairwise comparison are compared to directly defining the weight for each criterion, it making the interview process longer than it should be.
3. The relative importance of various types of business should be specified by the tank farm experts by assigning the weights in the AHP.

4. Some customers and tank farm managers advise that the tank farm should be developed to be a main port because the main port market is a big market. It may be interesting to extend the study to investigate the feasibility of such development.

5. Tank farm can actually service more type of businesses than studied in this research. Example of such businesses are gasoline, and lube oil businesses. It may be interesting to extend the study to include these types of businesses.

