

# CHAPTER 1 INTRODUCTION



## 1.1 Company Background

The case company is an oil company, mainly responsible for Thailand domestic oil market, both commercial and retail markets, and serves as the State's mechanism in stabilizing national economic, and energy security with its goals 'to become a world class company in the year 2000'.

The company procures petroleum products via its strategic partners. Such products include Gasoline, Diesel, Fuel Oil, Asphalt, Liquefied Petroleum Gas (LPG), Propane Gas, Jet Fuel, Kerosene, Lubricants, and others.

The customers of commercial market are the Electricity Generating Authority of Thailand (EGAT), Government Agencies and State Enterprise Companies, Airline's companies, and industrial customers. The customers of retail markets are service stations, and LPG-filling plants.

The Porter's Value Chain is shown in figure 1.1. The case company's individual activities can be mapped into that chain as follows.

### **Primary activities:**

#### Inbound Logistics:

- Receive products from indigenous refineries, and gas separation plants via pipelines and chartered foreign oil tanker ships, to some oil and gas terminals. Products received from refineries are LPG, Gasoline, Kerosene, Jet fuel, Diesel, Fuel oil, and others.

The product received from gas separation plants is LPG. Lubricant oil is received from the lube blending plant.

- Storage Gasoline, Kerosene, Jet fuel, Diesel, Fuel oil, and Lubricant oil in the cylindrical-oil storage tanks. LPG is stored in spherical tanks.

Operations:

- Build, maintenance, and improve terminals including terminal systems, oil storage tanks, and other facilities.
- Reserve products according to the legal reserves.
- Control product quality to meet the standard specification.
- Improve product quality by adding additives to the main products.
- Load products to tank trucks, rail tank wagons, small oil tanker ships, and pipelines from the said terminals to other oil and gas terminals throughout the country.
- Fill the lubricant oil in the containers, and pack them.

Outbound Logistics:

- Store LPG, Gasoline, Kerosene, Jet fuel, Diesel, Fuel oil, and LPG in the storage tanks. Store lubricant oil containers in the warehouses.
- Perform customer order process.
- Distribute products to terminals and then deliver to service stations throughout the country, by its own oil tank trucks and hiring other companies' tank trucks.

Marketing and Sales:

- Create demand of the products.
- Set products' price. Sales products.

- Advertise and promote products.
- Follow-up the service station performance.
- Follow-up the company's sales performance.

#### Support Activities

<b>FIRM INFRASTRUCTURE</b>		general management, planning, finance, accounting, legal government affairs, and quality management			<b>P R O F I T</b>
<b>HUMAN RESOURCE MANAGEMENT</b>		recruitment, hiring, training, development, and compensation of personnel			
<b>TECHNOLOGY DEVELOPMENT</b>		improving processes and products through the application of technology			
<b>PROCUREMENT</b>		acquisition of materials, consumables, as well as resources required to perform activities			
<b>INBOUND LOGISTICS</b>	<b>OPERATIONS</b>	<b>OUTBOUND LOGISTICS</b>	<b>MARKETING &amp; SALES</b>	<b>SERVICE</b>	<b>M A R G I N</b>
receipt, storage, movement and management of materials	transformation of materials into a product	storage, movement and distribution of a product to a customer	promotion and selling of a product	support of product once in service with customer	

#### Primary Activities

Figure 1.1 Porter's value chain (Source: Chulalongkorn University and the University of Warwick, 1997)

#### Service:

- Provide proactive inventory management service to the customer.
- Provide a maintenance services to oil and gas service stations, industrial customers, government agencies, and so on.
- Provide training about products and services to customers.

#### Support activities:

#### Procurement:

- Procure petroleum products to meet the market demand and legal reserves.
- Acquire materials, consumables, and other resources needed to perform activities

#### Technology Development:

- Research on product improvement, environmental research, and marketing.
- Search for new technology and bring to apply in the business.
- Improve existing processes.

#### Human Resource Management:

- Recruit human and hire human resources.
- Develop the appropriate training program and train to the oil business employees.
- Manage salary and compensation systems.
- Set up the personal database linked with the performance management system.

#### Firm Infrastructure:

- General management.
- Manage office document filing.
- Organise the management committee's meeting
- Planning
- Finance
- Accounting
- Legal
- Quality management

## 1.2 Statement of Problems

To stay competitive in today's marketplace, the company realizes that it needs to improve its business process. One of the business processes that need to be improved is Customer Order Process that is complex.

If the product or service is a set of outputs of the business process, the company must deliver better quality of product or service to the customers. In addition, as the competition in the oil market becomes harder and harder, the company has to seek out methods for faster business process improvement. One approach for rapid change and dramatic improvement is Business Process Reengineering.

For these reasons, the customer order process of the case company is chosen as the case to be reengineered.

## 1.3 Objective of The Study

The objective of this research is to model the better Customer Order Process to provide the better services to customers.

## 1.4 Scope of The Study

The scope of Customer Order Process of the case company being studied starts when the customers order their required products, and finishes when the customers receive the products.

The new Customer Order Process will be modeled by using the Breakthrough Reengineering Model (<http://www.prosci.com/intro.htm>) *except* Plan Transition and the Implementation.

The Breakthrough Reengineering Model is shown as follows:

- Scope the Project; define the scope and objectives of the project.

- Learn from others; learn from customers, employees, competitors, non-competitors, and new technology.
- Create To-be Process, including a vision for the future and design new business process.
- Plan Transition; create a plan of action based on the gap between your current processes, technologies and structures, and where you want to go.
- Implement.

The targeted customers to be studied are Industrial Customers, and Domestic Oil and LPG Service Stations customers.

The cost/benefit analysis of new Customer Order Process models will be performed based on the Activities Based Costing (ABC) concept.

The Business Process Reengineering tool which will be used in this research is the licensed software namely FirstSTEP from Interfacing Technologies Corporation. This is because FirstSTEP can be used to help in the construction and analysis of the business model as its main components composed of Modeling and Mapping Tools, Business Templates, Process Simulation, Reporting and Analysis Facility, Object Repository.

## **1.5 Research Procedure**

1. Study on the relevant issues of the Business Process Redesign.
2. Describe the project (establish boundaries).
3. Gather information by learning from others: customers, employees, competitors, non-competitors or associates, and technology. This includes the survey of customers requirement and Government's regulations, the interview of employees, the study of competitors and non-competitors' Customer Order Process, and the study for appropriate technology.

4. Create vision, value and objectives. This includes the interview with the top executive and operators who are in charge of Customer Order Process, building a top down and bottom up vision, value and objectives, the defining of vision, value and objectives.
5. Create the new model of the Customer Order Process. This includes the defining of the process components, the assembling of the process, the analysis & simulation, and compares the new Customer Order Processes with the existing processes.
6. Evaluate concept (benefits statement)
7. Conclusions that will be focused on the new Customer Order Processes and their cost/benefits, and how better the new Customer Order Processes compared with the existing one.
8. Prepare the thesis paper.
9. Thesis Examination

## 1.6 Expected Benefits of The Study

### Academic Point of View:

1. Gain an understanding of how to model the business process and how to simulate the models.
2. Understand the ABC concept used for the redesigned processes.

### Company Point of View:

1. The case company will have alternatives of the better Customer Order - Process to provide better service to customers.