

Chapter 1  
**INTRODUCTION**



**Background and Circumstance of the Problem**

Regarding automotive industry is an important industry by countries all over the world since it affects industrial development greatly. With several factors such as major marketing, technology development and success of cost reduction by various methods support the mentioned industry to significantly expand and grow in developing countries market such as Europe, Japan, particularly USA.

However, many factors in the world has changed, the market in those developing countries became saturated, labour cost and money cost raised up, inevitably cost of automotive export from these countries raised up too. While negative factors occurred in world automotive industry had turned favorable to other regions, which originally was small and medium markets particularly Asian region.

Therefore, major car producers unanimously agreed to shift production base outside parent country to Latin American and Asian region, especially Southeast Asian region. As a result of which attract investment for automobile assembly plant in these countries are large size market, lower production cost comparing to developed countries, as well as potential to export to countries in the same region. Countries in Asia which attract interest from investors are China and India which have high population of 1.3 billion and 847 million population.

Though countries in Southeast Asia such as Malaysia, Indonesia and Thailand have less population compared to China and India, proportion of middle

class which is main target market is rather high. Moreover, economic situation of these countries grow at high level especially Thailand.

In the past decade, Thailand's economy has been growing at a consistent rate of approximately 8% per year. Contributing to this growth are auto companies and parts manufacturers who are amongst the nation's top revenue earners.

Due to Thailand being one of Southeast Asia's fastest growing automotive markets with vehicle high growth particularly during 1988-1995, as can be seen from *Table 1.1 and Figure 1.1*, U.S. and Japanese car maker have recently established business opportunities with their Thai counterparts. Experts predicted that Thailand will become the most important auto manufacturing and assembly base in the Asian region, as a result the automotive part market would be greatly expand likewise.

One of the major groups of automobile parts is upholstery for seat, side panel, and ceiling. The upholstery may be in the form of leather, vinyl, and textiles (different types).

The fabric textile upholstery capture a huge market size of passenger cars and one-ton pick up trucks which seizing 83% of total automobile in Thailand, as can be seen from *Figure 1.2*

### **Aim of the Study**

Thailand economy since 1995 till now has been declining with its growth rate lower than 7% particularly 6.8% in 1996, much lower than it was expected. The rate of growth was the lowest over the past decade due to the several economic factors such as decreasing personal disposal income, slowdown in consumable goods price, etc.

For this reason the forecast for car fabric capacity of production plan and its financial planning seem critical. Originally forecasts in long term or called business plan of company was considered by the past experienced or phenomena and prediction basis as a result many problems occurrence with high variance.

Demand forecasting system becomes important role in solving this problem. For the capacity of the car fabric production and its financial planning to be more effective, several factors have to be considered. According to the forecasting system, there are able to :

- 1) Analyze relevant data and estimate the relationships between significant variables.
- 2) Give the system for predicting the future movements of the system in which influenced by changing the significant factors.

### **Objectives**

In order to formulate efficient and effective plans, it is deemed necessary to undertake this research study as following :

- 1) To forecast the car fabric demand.
- 2) To determine the capacity production plan.
- 3) To set up the financial planning.

### **Scope of the Study**

- 1) This research study considering only the relevant factors of car fabric production.

- 2) Forecasting car fabric demand and its financial planning for the next 5 years (1997-2001).
- 3) The study is based on the assumption that the company received the BOI's promotion privilege for a period of five years the exemption of 30% corporate income tax.

### **Procedure of the Study**

- 1) Survey and study the relevant literature
  - Car fabric production process
  - Demand forecasting system
- 2) Data collection and information investigation related car fabric production.
- 3) Design a forecasting model for car fabric demand using its theory and relevant research.
- 4) Determine the capacity of production : cost of production, cost of good sold, and income statement forecasting.
- 5) Set up the financial planning of car fabric industry.
- 6) Define the forecasting system of both production plan and financial planning for the next 5 years.
- 7) Make the report and correction
- 8) Summarize and write the final report

### **Expected Benefits**

- 1) To be a prototype for implementation of demand forecasting system in car fabric industry.

- 2) To perceive the car fabric demand in the future with appropriate model conditionally specified variables.
- 3) To gain better accuracy on forecasting the car carpet demand and its financial planning.

### **Structure of the Study**

The body of the dissertation is structured as follows :

#### **Chapter 1 : INTRODUCTION**

The aim of this chapter is to examine the recent situation of the automobile industry which encompasses a wide range of automotive products, serving of the automotive part markets. The fabric upholstery manufacture products which are used in mostly every passenger cars and 1 ton pick up trucks. This chapter also indicate the objectives, scope, and benefits of the study.

#### **Chapter 2 : LITERATURE REVIEW & THEORETICAL ISSUES**

This chapter provides some theoretical issues on demand forecasting which adopted by the real past sale record of passenger cars and pick up 1 ton coupling with the economic situation analysis for the next 5 years as well as planning of production capacity through its financial plan respectively.

#### **Chapter 3 : PROFILE OF THE CAR FABRIC INDUSTRY**

This chapter describes the history of the car fabric industry, T.C.H. Suminoe Co., Ltd., in term of background, corporate structure, and products.

#### **Chapter 4 : METHOD OF DEMAND FORECASTING AND PLANNING CAPACITY**

This chapter describes concept and processes of demand forecasting applied in car fabric manufacturing at TCHS (T.C.H. Suminoe Co., Ltd.). Thus a marketing projection for fabric production can be set up and the appropriate production capacity is readily determined together with achieving in virtually financial plan for the next 5 years (1997-2001).

#### **Chapter 5 : BUDGET ALLOCATION & FINANCIAL PLANNING**

This chapter will present the procedures of budget allocation applied in car fabric manufacturing at TCHS. Also providing through the financial plan for the next 5 years (1997-2001). It focuses on how to manage the capital into each budget and blend it thoroughly financial plan of the company.

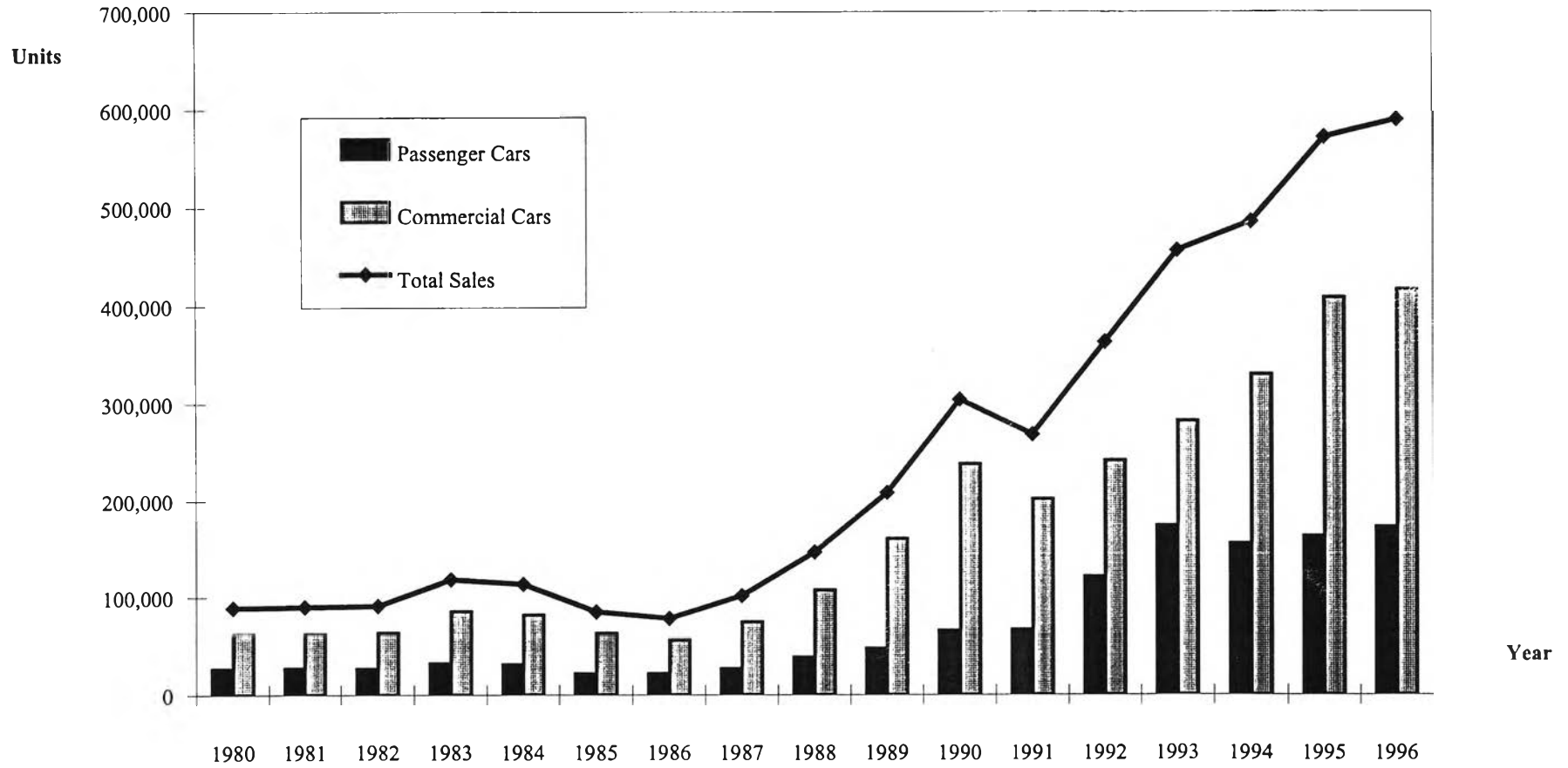
#### **Chapter 6 : CONCLUSION**

Table 1.1 : AUTOMOBILE PRODUCTION AND SALES (DEMAND)

Year	Production			Sales (Demand)		
	Passenger Cars	Commercial Cars	Total	Passenger Cars	Commercial Cars	Total
1961	310	215	525	3,542	3,318	6,860
1962	908	276	1,184	4,558	3,680	8,338
1963	1,817	1,628	3,445	9,396	6,303	15,399
1964	3,978	3,289	7,267	11,178	9,891	21,069
1965	4,408	5,687	10,095	10,374	13,724	24,698
1966	4,898	5,749	10,647	14,384	15,835	30,819
1967	6,211	6,607	12,818	23,316	26,115	49,431
1968	7,209	6,779	13,988	27,898	36,188	64,086
1969	6,110	6,030	12,140	24,376	41,069	65,445
1970	6,604	4,063	10,667	21,828	27,438	49,266
1971	9,017	5,997	15,014	18,308	26,595	44,603
1972	11,630	7,755	19,385	18,027	26,156	44,183
1973	17,935	9,499	27,434	30,175	39,843	70,018
1974	17,572	14,891	32,463	29,211	44,644	73,855
1975	15,524	15,467	30,991	23,388	54,729	78,117
1976	15,333	25,729	41,062	20,699	57,642	78,341
1977	18,564	47,310	65,874	25,480	75,843	101,323
1978	21,869	45,200	67,069	23,233	66,034	89,267
1979	21,602	45,137	66,739	22,043	66,816	88,859
1980	23,441	50,544	73,985	26,840	62,361	89,201
1981	26,650	60,509	87,159	27,672	62,372	90,044
1982	24,629	52,655	77,284	27,356	63,830	91,186
1983	33,945	75,314	109,259	32,779	85,732	118,511
1984	36,127	74,910	111,037	31,500	82,049	113,549
1985	24,861	58,244	83,105	22,097	63,125	85,222
1986	21,046	53,116	74,162	22,481	55,973	78,454
1987	29,333	68,815	98,148	27,114	74,500	101,614
1988	54,459	99,724	154,183	38,768	107,712	146,480
1989	58,761	154,787	213,548	47,705	160,538	208,243
1990	73,766	231,077	304,843	65,864	238,198	304,062
1991	76,938	206,177	283,115	66,779	201,781	268,560
1992	104,565	223,393	327,958	121,488	241,499	362,987
1993	144,449	275,582	420,031	174,169	282,299	456,468
1994	109,830	325,231	435,061	155,670	330,008	485,678
1995	127,640	398,040	525,680	163,371	408,209	571,580
1996	138,579	420,249	558,828	172,730	416,396	589,126
<b>Growth Rate</b>						
1961-1971	40.1	39.5	39.8	17.7	23.1	20.6
1972-1977	9.8	43.6	27.7	7.2	23.7	18.1
1978-1987	3.3	4.8	4.3	1.7	1.3	1.4
1988-1996	12.4	19.7	17.5	20.5	18.4	19

Source : Thai Automotive Industry Club, The Federation of Thai Industry,

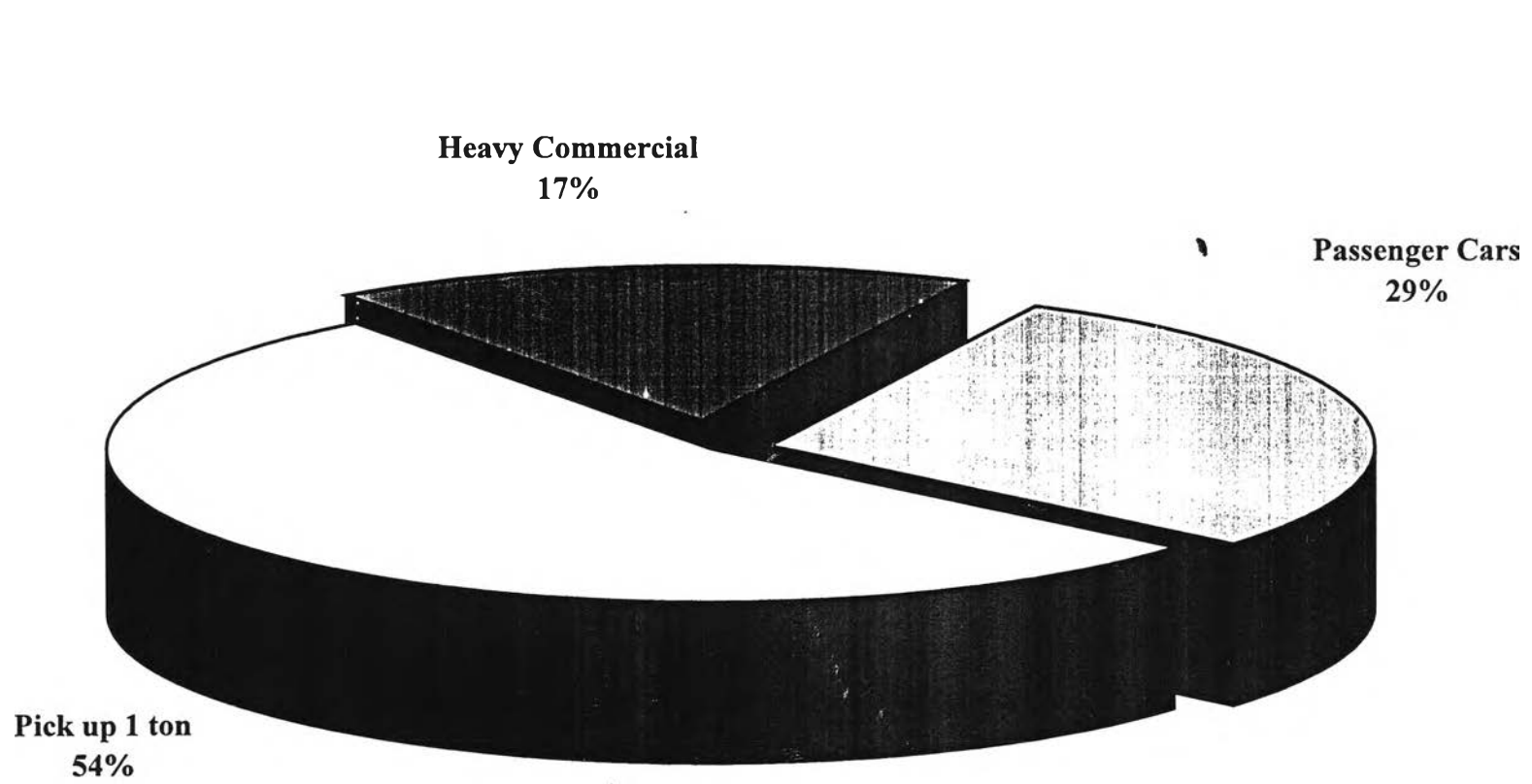
**Sale Record of Automobile in Thailand from 1980-1996**



**Figure 1.1** : The Sale Record of Automobile in Thailand from 1980-1996

(Source : Toyota Motor Thailand Co., Ltd.)





*Figure 1.2* : Segmentation of Automobile in Thailand