

Chapter 7

Financial Analysis

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All parts, which discussed earlier, are the overall knowledge about the handicraft umbrella; however, it is not the whole picture of handicraft umbrella. In studying a company, we study not only about general information of the company and industry but also about company financial statement because we would know strength and weakness of company and the next future trend as financial statement is a record of everything occurs to the company in term of numerical. In studying financial part, it's shown the useful information for future planning. In financial part data and information are collected from various sources. Information based on government departments such as macro economic research in August 5, 2005 from Bank of Thailand (BOT), statistics from National Statistical Office (NSO), numbers of tourist from Tourism Authority of Thailand (TAT) and etc. some information about the company come from interview Mr. Kiattipong The Human Manager of this company. For studying financial part, first is setting assumptions and business indicators then study about factors, which have impacts on sales and costs. After that financial statements year 2005 and 2006 are estimated. Next estimate financial ratio, which can identify strength and weakness of the company. Finally, the problems and recommendations will be identified and proposed.

I. Business Indicators and Assumptions

Before starting the estimate of the financial statement of this company. There are many factors influence the financial statement, which may cause error to the statement. So we should set some assumptions and indicators to maintain some factors to simplify our study. This session will show about oil prices, inflation, population, currency exchange rate and so on.

a. Assumption 1 Oil prices: The August 5, 2005 research of The Monetary Policy Committee (MPC), Bank of Thailand (BOT) has forecasted average Dubai crude oil price is 49.50 US dollars per Barrel in year 2005 and 54.75 US dollars per Barrel in year 2006. The average retail diesel price in Thailand is 20.48 Baht per Litre in year 2005 and 25.35 Baht per Litre in year 2006 (Table 7-1 and Figure 7-1). But the average retail diesel price in Thailand from January 1, 2005 to September 30, 2005 was 18.93 Baht per Litre¹ that is a little bit lower than the MPC expected by three quarters year 2005 at 19.13 Baht per Litre. So assume that the fourth quarter of year 2005 the average retail diesel price remains the same level as the MPC forecasted and year 2006 the average retail diesel price in Thailand is similar to MPC expected at 25.35 Baht per Litre.

¹Oil prices statistics from Energy Policy and Planning Office, Ministry of Energy, Thailand, <http://www.eppo.go.th/info/T15.html>

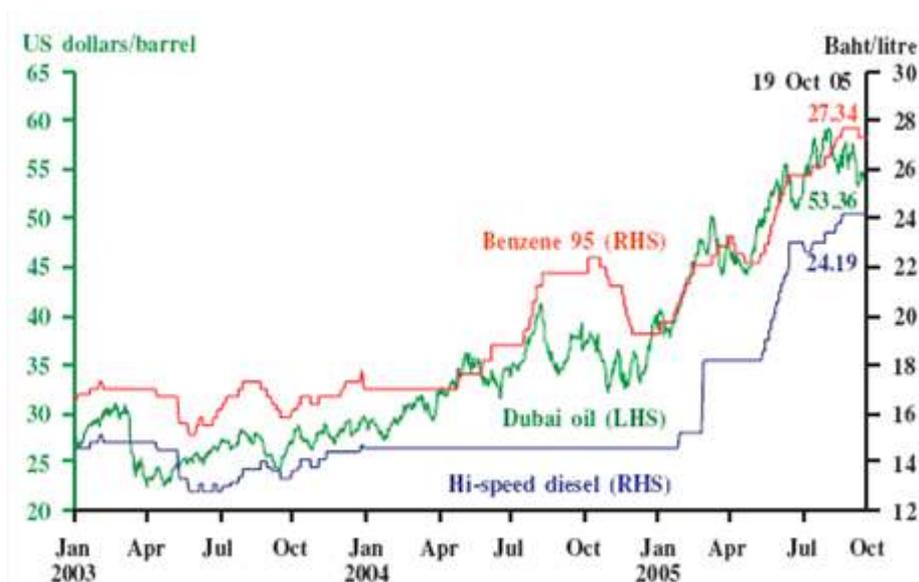
Table 7-1 : Assumption on Dubai Crude Oil Price and Domestic Diesel Retail Price

Oil Prices	2005				2006			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Dubai (US Dollars/Barrel)	41	48	54	55	55	55	55	54
Should-be Diesel Price	19.2	21.3	25.0	25.5	25.5	25.6	25.6	25.2
Subsidy*	4.1	2.8	0	0	0	0	0	0
Reduction of Excise Tax*	0	0	1.1	0.9	0.5	0	0	0
Total Subsidies	4.1	0	1.1	0.9	0.5	0	0	0
Retail Diesel Price Assumption	15.1	18.5	23.8	24.5	25.0	25.6	25.6	25.2

* Following the Diesel price floating plan of the government

Source: Bank of Thailand,

http://www.bot.or.th/BOTHomepage/BankAtWork/Monetary&FXPolicies/Monet_policy/report/index_eng_i.asp

Figure 7-1 : Dubai Oil Price and Domestic Retail Oil Price

Source: Bank of Thailand,

http://www.bot.or.th/BOTHomepage/BankAtWork/Monetary&FXPolicies/Monet_policy/report/index_eng_i.asp

b. Assumption 2 Inflation rates: By Assumption 1, inflation pressure was expected to increase with higher oil prices and their pass on effect on the prices of other goods and services, while at the same time price pressure from the demand side was present as the economy was poised to improve. Higher supply-side inflationary pressure prompted the MPC to raise the inflation forecasts for 2005 and 2006. From Table 7-3, the MPC reforecasts the core inflation rate from 1.5-2.0% with probability 55.6% in April 2005 to 1.5-2.0% with probability 63.2% which meant the MPC confides that the core inflation rate will remain at the high level. But the reforecast for 2006 on July 2005, the MPC weighted the core inflation rate by the same probability (about 40%) at the core inflation rate

2.0-2.5% and 2.5-3.0% respectively. While Table 7-4 the MPC reforecasts the headline inflation rate by weighted with the higher probability (95.3% on year 2005) at 4.0-4.5%, (41.7% on year 2006) at 3.5-4.0%

Table 7-2 : Summaries Forecast Indicators as of October 2005

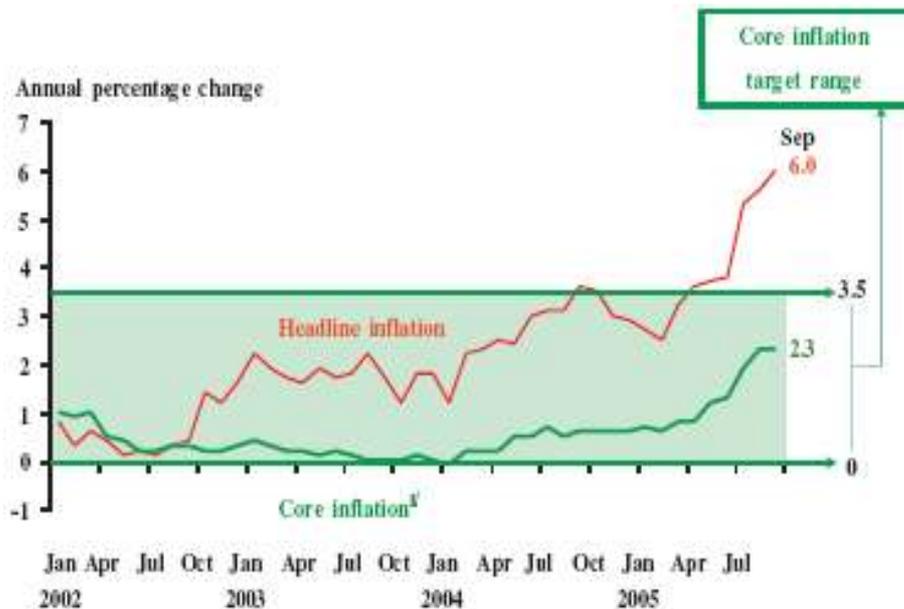
Unit: Percent

Summary Forecast as of October 2005				
Annual Percentage Change	2003	2004	2005	2006
GDP Growth	6.9	6.1	4.25-4.75	4.5-6.0
Core Inflation	0.2	0.4	1.5-2.0	2.0-3.0
Headline Inflation	1.8	2.7	4.5-5.0	3.5-5.0

Source: Bank of Thailand,

http://www.bot.or.th/BOTHomepage/BankAtWork/Monetary&FXPolicies/Monet_policy/report/index_eng_i.asp

Figure 7-2 : Core and Headline Inflation



Source: Monetary Policy Committee report, Bank of Thailand, August 05, 2005,

http://www.bot.or.th/BOTHomepage/BankAtWork/Monetary&FXPolicies/Monet_policy/report/report/Investor_5Aug05.pdf

Table 7-3 : Probability Distribution of Core Inflation Forecast

Unit: Percent

	Probability			
	2005		2006	
	As of April 2005	As of July 2005	As of April 2005	As of July 2005
< 0	0.0	0.0	0.0	0.0
0.0-0.5	0.0	0.0	0.0	0.0
0.5-1.0	0.0	0.0	0.0	0.0
1.0-1.5	44.4	36.8	0.4	0.0
1.5-2.0	55.6	63.2	17.0	2.0
2.0-2.5	0.0	0.0	57.9	40.4
2.5-3.0	0.0	0.0	23.5	43.2
3.0-3.5	0.0	0.0	1.2	4.4
> 3.5	0.0	0.0	0.0	0.0

Source: Monetary Policy Committee Report, Bank of Thailand, August 05, 2005,
http://www.bot.or.th/BOTHomepage/BankAtWork/Monetary&FXPolicies/Monet_policy/report/import/Investor_5Aug05.pdf

Table 7-4 : Probability Distribution of Headline Inflation Forecast

Unit: Percent

	Probability			
	2005		2006	
	As of April 2005	As of July 2005	As of April 2005	As of July 2005
< 1.0	0.0	0.0	0.0	0.0
1.0-1.5	0.0	0.0	0.0	0.0
1.5-2.0	0.0	0.0	1.4	0.0
2.0-2.5	0.0	0.0	27.8	0.2
2.5-3.0	0.0	0.0	57.0	3.6
3.0-3.5	56.6	0.0	13.6	20.7
3.5-4.0	43.4	2.5	0.2	41.7
4.0-4.5	0.0	95.3	0.0	27.9
4.5-5.0	0.0	2.2	0.0	5.6
> 5.0	0.0	0.0	0.0	0.3

Source: Monetary Policy Committee Report, Bank of Thailand, August 05, 2005,
http://www.bot.or.th/BOTHomepage/BankAtWork/Monetary&FXPolicies/Monet_policy/report/import/Investor_5Aug05.pdf

Assuming core inflation rate in year 2005 was at 1.5-2.0% and 2006 will be at 2.0-3.0%. Headline inflation rate in year 2005 at 4.5-5.0% and year 2006 at 3.5-5.0% same as the MPC forecasted.

c. Assumption 3 GDP growth: As Table 7-2 the MPC forecasted GDP growth in year 2005 at 4.25-4.75% and in year 2006 at 4.5-6.0%. From Table 7-5 found that the MPC reforecast probability GDP growth year 2005 by rating 62.6% at 3.5-4.0% and year 2006 rating 40% at 5.0-5.5%. So assume year 2005 GDP

growth at 4.25-4.75% and year 2006 GDP growth at 4.5-6.0% as the MPC forecasted.

Table 7-5 : Probability Distribution of GDP Growth Forecast

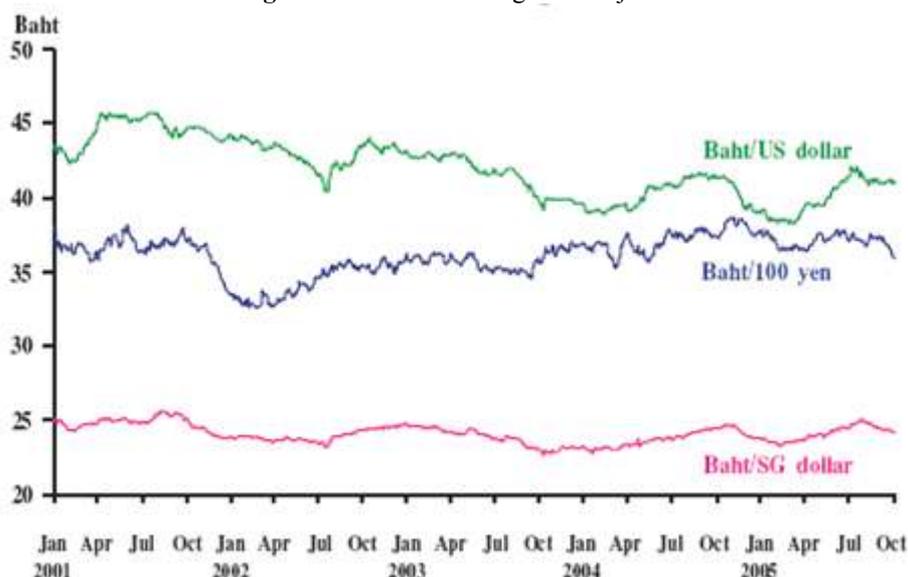
Unit: Percent

	Probability			
	2005		2006	
	As of April 2005	As of July 2005	As of April 2005	As of July 2005
< 3.0	0.3	0.0	0.1	0.0
3.0-3.5		7.3		
3.5-4.0		62.6		0.7
4.0-4.5	7.4	28.6	0.4	7.0
4.5-5.0	37.1	0.6	4.6	27.4
5.0-5.5	43.1	0.0	18.5	40.0
5.5-6.0	11.4		35.0	21.0
6.0-6.5	0.6		29.4	3.8
> 6.5	0.0		12.1	0.2

Source: Monetary Policy Committee Report, Bank of Thailand, August 05, 2005, http://www.bot.or.th/BOTHomepage/BankAtWork/Monetary&FXPolicies/Monet_policy/report/import/Investor_5Aug05.pdf

d. Assumption 4 Currencies exchange: the exchange rate of Thai Bahts per one US Dollar is averaged at 41.31 Baht per US dollar in the third quarter of year 2005, which was weaker relative to US dollar than the average rate in the second quarter year 2005. Nevertheless, the Baht strengthened a bit after the People's Bank of China (PBOC) revalued Renminbi on July 21, 2005. The Renminbi revaluation was smaller than market expected. This led the market to anticipate another revaluation of the Renminbi in the near future. But other factors that have impact on the exchange rate such as interest rate, balance of payment and capital flow cannot be predicted.

Figure 7-3 : Thai Baht Against Major Currencies



Source: Monetary Policy Committee report, Bank of Thailand, August 05, 2005, http://www.bot.or.th/BOTHomepage/BankAtWork/Monetary&FXPolicies/Monet_policy/report/import/Investor_5Aug05.pdf

Although Thai Baht tends to appreciate but this study assumes Thai Baht still remains at 41.20-41.40 Baht against US dollar until the end of the year 2006.

e. Assumption 5 Population fertilities: From Table 7-6 on July 1, 2005 Thailand's estimated population was 64,261,000 persons. Birth rate was 1.3% and Death rate was 6.8%. Total natural growth rate was

$$1.3\% - 0.68\% = 0.62\%$$

The meaning of natural growth rate is the net changing rate of population between birth rate and death rate in one period of time, normally used for one year period, so we can calculate the population of Thailand at the end of year 2005 by using the estimated population at July 1, 2005 multiply by natural growth rate and because natural growth rate used in a period of one year, then divided by half, the number of population of Thailand at the end of year 2005 is

$$64,261,000 \times 0.62\% \times 6/12 = 64,460,210 \text{ persons}$$

Table 7.6 : Thailand Populations Year 2005

Unit: Person

Thailand's Population Year 2005		
Expected Population (July 1 st , 2005)		
Population	64,261,000	
By Gender	Male 31,815,000	Female 32,446,000
By Region North	11,800,000	18.36% of Total
Bangkok	6,803,000	10.59% of Total
South	8,505,000	13.24% of Total
North-East	21,816,000	33.95% of Total
Central (ex. Bangkok)	15,337,000	23.87% of Total
Birth Rate (per 1,000)	13.0	
Death Rate (per 1,000)	6.8	
Lifespan	Male 67.9	Female 75.0
Natural Growth Rate (%)	0.62	

Source: Bureau of Policy and Strategy, Ministry of Public Health,
http://203.157.19.191/input_bps.htm

Further more, the population of Thailand at the end of year 2006 is

$$64,460,210 \times 0.62\% = 64,859,863 \text{ persons}$$

This population assumption refers to our labor for Assumption 7.

f. Assumption 6 Technologies: Assuming the present technologies are still remaining unchanged until the end of year 2006. Handicraft umbrella requires low technology such as papermaking, umbrella frame making, covering umbrella by paper and umbrella painting.

g. Assumption 7 Inputs: This study divides inputs into two categories; one is raw materials such as wood and paper. In umbrella frame making, the company uses softwood and bamboo, which can be purchased from Chiang Mai and nearby areas (Table 7-7 shows some forest area in north of Thailand).

Table 7-7 : Forest Areas in Northern Region of Thailand

Unit: Square kilometre

Provinces	Mixed Deciduous Forest	Dry Dipterocarp Forest	Bamboo Forest	Tree Plantations
Chiang Mai	8,985.9	2,322	-	130.9
Utaithani	2,340.0	167.9	74.9	19.6
Tak	7,593.8	1,173.3	68.6	17
Sukhothai	1,599.4	56.60	0.3	114.6
Petchaboon	2,364.0	368.1	12.7	355.4

Source: Forest area categorized by types and provinces year 2000, National Statistical Office, http://service.nso.go.th/nso/data/data23/stat_23/toc_22/22.2-2.xls

Moreover, in papermaking the company uses the bark of mulberry tree, which is abundant in northern region. So this study assumes that there is enough forest area, which can be easily transported to factory for producing handicraft umbrella until the end of year 2006. The other input is labor, from Assumption 5 that by the end of year 2005 Thailand had 64,460,210 populations and year 2006 there will be 64,859,863 populations if the proportions of each region still remain the same. Northern region population by the end of year 2005 and 2006 are

Year 2005 north population = 64,460,210 x 18.36% = 11,834,895 persons

Year 2006 north population = 64,859,863 x 18.36% = 11,908,271 persons

So from the calculation this study assumes that handicraft umbrella industry still has enough skilled labor and can recruit immediately as they require until the end of year 2006.

h. Assumption 8 Tourism: Tourism Authority of Thailand (TAT) has forecasted the domestic and international tourism as Table 7-8 and Table 7-9.

Table 7-8 : Domestic Tourists Forecast

Year	Domestic			
	Visitors (Million Visits)	Change (Percent)	Expenditures (Baht/Day/Person)	Change (Percent)
2001	58.62	-	1,702.70	-
2002	61.82	5.45	1,689.52	(0.77)
2003	69.36	12.20	1,824.38	7.98
2004	74.80	7.84	1,852.33	1.53
2005	76.24	1.93	1,965.00	6.08
2006	79.33	4.05	2,050.00	4.33

Source: Tourism statistics, Tourism Authority of Thailand, http://www2.tat.or.th/stat/web/static_index.php

Table 7-9 : International Tourists Forecast

Year	International			
	Visitors (Million Visits)	Change (Percent)	Expenditures (Baht/Day/Person)	Change (Percent)
2001	10.06	-	3,748.00	-
2002	10.80	7.33	3,753.74	0.15
2003	10.00	(7.36)	3,774.50	0.55
2004	11.65	16.46	4,057.99	7.51
2005	13.38	14.84	4,150.00	2.27
2006	15.12	13.00	4,300.00	3.61

Source: Tourism statistics, Tourism Authority of Thailand,
http://www2.tat.or.th/stat/web/static_index.php

The tourism industry had not fully recovered. In July and August 2005, the average number of foreign tourists fell by 2.2% year on year as tourism in the south continued to slump after 6 provinces along the Andaman coast had been hit by the tsunami disaster. Moreover, tourists concern about terrorists in 3 provinces which caused half year of 2005 international tourism failed to achieve the target of 6.69 millions tourists. Table 7-10 and Figure 7-4 show numbers of international tourists were only 5.3 million tourists in half year of 2005, this number is under estimated were by 23%.

Table 7-10 : Number of Tourists and Occupancy Rate

	2004	2004		2005			
		H1	H2	H1	Apr	May	Jun
Occupancy Rate (%)	64.0	61.9	66.1	60.0	56.0	54.9	57.8
No. of Tourists (Mil)	11.7	5.5	6.1	5.3	0.86	0.83	0.90
Change (%)	16.5	28.2	7.6	-3.7	-1.0	2.2	4.5

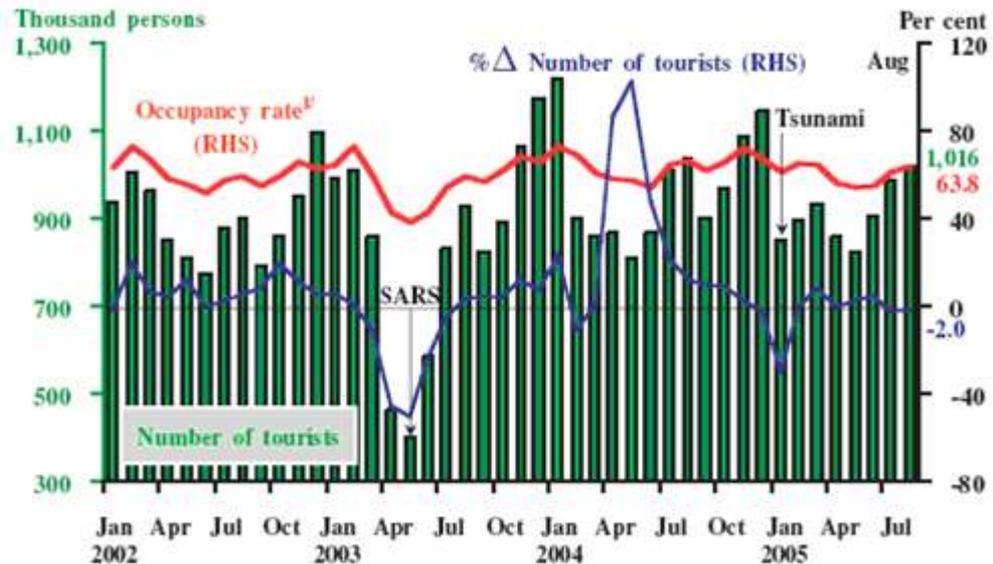
Source: Monetary Policy Committee report, Bank of Thailand, August 05, 2005,
http://www.bot.or.th/BOTHomepage/BankAtWork/Monetary&FXPolicies/Monet_policy/report/import/Investor_5Aug05.pdf

As Table 7-10 shows tourism on April, May and June were at the average of 0.86 million tourists. This is difficult to achieve target because in second half of year 2005 Thailand need international tourists for 8.08 million tourists although in second half year is high season for vacation. This study assumes second half-year international tourism on year 2005 by average monthly tourism in the first half-year 2005 and growth rate at 20% so in second half year the numbers of tourism equal

$$(5.3/6) \times 1.2 \times 6 = 6.36 \text{ million tourists}$$

So the estimate of international tourism year 2005 is equal

$$5.3 + 6.36 = 11.66 \text{ million tourists}$$

Figure 7-4 : Number of Tourists and Occupancy Rate

Source: Monetary Policy Committee report, Bank of Thailand, August 05, 2005, http://www.bot.or.th/BOTHomepage/BankAtWork/Monetary&FXPolicies/Monet_policy/report/import/Investor_5Aug05.pdf

But this study still maintains growth rate of international tourism year 2006 at 13% so the number of international tourism year 2006 is

$$\begin{aligned} &\text{Numbers of international tourism year 2005} \times (1 + \text{growth rate}) \\ &11.66 \text{ millions} \times (1 + 0.13) = 13.18 \text{ million tourists} \end{aligned}$$

This study maintains the numbers of domestic tourism year 2005 at 76.24 million visits and year 2006 at 79.33 million visits as TAT forecasted.

II. Revenue Projection

From interview Mr. Kiattipong Pipatjariya the Manager of Human Resource Department during field trip on October 7, 2005. This company registered as “Company Limited” two months ago, hence there is no financial statement yet, that means for this financial part is the estimation from assumptions, data search and interview information. Sales of this company are from the information that the proportion of domestic sales are 30% of total sales and international sales are 70% including export via telephone, mail and email orders. This implies that domestic sales have impacted by domestic tourists, which mean if domestic tourists increase, sales of this company will increase as proportion to domestic tourists. Similarly, international sales have impacted by international tourists. Table 7-11 shows the tourists in Chiang Mai both domestic and international year 2001-2006 based on our assumptions. Tourists in Chiang Mai year 2005-2006 can calculated from proportion of tourist year 2004 as shown in Table 7-11 and 7-12

Table 7-11 : Estimated Numbers of Domestic Tourists in Chiang Mai year 2005-2006

Unit: Persons

	Total Domestic Tourists in Chiang Mai Year 2001-2004 (1)	Domestic Tourists in Thailand (2)	Total Domestic Tourists in Thailand Year 2001-2004 (3)	Total Domestic Tourists in Chiang Mai (4) = (1)x(2)/(3)
2005	15,565,674	76,240,000	264,600,000	4,484,985
2006	15,565,674	79,330,000	264,600,000	4,666,761

Table 7-12 : Estimated Numbers of International Tourists in Chiang Mai year 2005-2006

Unit: Persons

	Total International Tourists in Chiang Mai Year 2001-2004 (1)	International Tourists in Thailand (2)	Total International Tourists in Thailand Year 2001-2004 (3)	Total International Tourists in Chiang Mai (4) = (1)x(2)/(3)
2005	12,858,752	11,660,000	42,510,000	3,527,006
2006	12,858,752	13,180,000	42,510,000	3,985,517

Table 7-13 : Tourism in Chiang Mai Year 2001-2006

Unit: Persons

	2001	2002	2003	2004	2005*	2006*
Domestic	3,815,022	3,704,336	3,844,118	4,202,198	4,484,985	4,666,761
International	3,090,734	3,217,436	2,955,694	3,594,888	3,527,006	3,985,517
Total	6,905,756	6,921,772	6,799,812	7,797,086	8,011,991	8,652,278

* Year 2005 and 2006 are from estimation.

Source: Tourism statistics, Tourism Authority of Thailand, http://www2.tat.or.th/stat/web/static_tst.php

Table 7-14 shows the proportion of tourists in Chiang Mai, which come to Bosang (handicraft umbrella showroom and factory location) year 2002-2004 categorized by domestic tourists and international tourists.

Table 7-14 : Proportion of Chiang Mai Tourism at Bosang

Unit: Percent

	Domestic	International
2002	9.24	11.59
2003	9.18	12.51
2004	11.71	4.31
Average	10.04	9.47

Source: Tourism statistics, Tourism Authority of Thailand,
http://www2.tat.or.th/stat/web/static_tst.php

For the proportions of Bosang tourist year 2005 and 2006 are the average proportions of year 2002-2004 as

$$\text{Domestic tourist } (9.24 + 9.18 + 11.71) / 3 = 10.04\%$$

$$\text{International tourist } (11.59 + 12.51 + 4.31) / 3 = 9.47\%$$

After that the estimated numbers of tourists in Bosang year 2002-2006 shown in Table 7-15

Table 7-15 : Numbers of Tourists in Bosang

		2002	2003	2004	2005	2006
Domestic	Percent	9.24	9.18	11.71	10.04	10.04
	Tourists	342,281	352,890	492,077	342,085	355,950
International	Percent	11.59	12.51	4.31	9.47	9.47
	Tourists	372,901	369,757	154,940	246,201	278,207
Total Tourists		715,182	722,647	647,017	588,286	634,157

Then estimate the average souvenir expenses per tourist on year 2005-2006 by average expenses year 2002-2004 as

$$\text{Average domestic souvenir expenses}$$

$$(629.82 + 758.69 + 773.30) / 3 = 720.60 \text{ Baht}$$

$$\text{Average International souvenir expenses}$$

$$(974.13 + 1,038.65 + 1,045.01) / 3 = 1,019.26 \text{ Baht}$$

Table 7-16 : The Average Souvenir Expenses per Tourist on year 2002-2004
Unit: Baht

	Domestic	International
2002	629.82	974.13
2003	758.69	1,038.65
2004	773.30	1,045.01
Average	720.60	1,019.26

Source: Tourism statistics, Tourism Authority of Thailand,
http://www2.tat.or.th/stat/web/static_tst.php

This company sells handicraft umbrella, which can be divided into three categories – small size (less than 5 inches radius), medium size (17-20 inches radius) and large size (over 40 inches radius) – Mr. Kiattipong said year 2005 all umbrella categories can sell average 4,000 – 5,000 umbrellas per month. About the sales proportions of the umbrella, Mr. Kiattipong said its ratios for each category is 3:4:3². From the proportions imply that small size can sell 1,350 umbrellas per month medium size can sell 1,800 umbrellas per month and large size can sell 1,350 umbrellas per month and prices of each size in year 2005 are shown in Table 7.17. Mr. Kiattipong said price of each size of umbrella would be revised from year 2005 to maintain net profit margin so the estimated prices of each umbrella year 2006 by adding the headline forecasted inflation rate year

²Interview Mr. Kiattipong Pipatjariya by telephone on November 9, 2005.

2006 in Assumption 2 into prices of umbrellas year 2005. Then price of each umbrella in year 2006, which is shown in Table 7-17 as

$$\begin{aligned}\text{Price of small size} &= 40 \times 1.05 = 42 \text{ Baht} \\ \text{Price of medium size} &= 120 \times 1.05 = 125 \text{ Baht} \\ \text{Price of large size} &= 875 \times 1.05 = 920 \text{ Baht}\end{aligned}$$

Table 7.17 : Prices of Handicraft Umbrella Year 2005-2006

Unit: Baht

	Small Size	Medium Size	Large Size
2005	40	120	875
2006	42	125	920

Source: Interview Mr. Kiattipong during field trip on October 7, 2005

Mr. Kiattipong said all umbrellas are sold in cash. Orders from abroad will be sent by post when customers remit to company's account which prices quoted by exchange rate of that time. Company charges all shipping costs and expenses including insurance to customers. And after receiving the remittance, company will sell foreign currency at spot rate. So company has no risk about collecting money from account receivables. But company has high risk from the amount of money received from international orders. Mr. Kiattipong said 70% of total sales come from international tourists that means revenue from international tourists is

$$4,500 \times 70\% = 3,150 \text{ Umbrellas}$$

The revenue from domestic tourist is 30% of total sales

$$4,500 \times 30\% = 1,350 \text{ Umbrellas}$$

So the quantity sold of each category as

Domestic quantity sold can be divided into three categories = 405:540:405 umbrellas per month.

International quantity sold can be divided into three categories = 945:1,260:945 umbrellas per month.

The estimated quantity of umbrella sold in year 2006 by growth of the domestic and international tourist in year 2006 can calculate by

Domestic quantity sales $4,500 \times 30\% \times 1.1004 = 1,486$ umbrellas per month, which can be divided into three categories = 446:595:446 umbrellas per month.

International quantity sold $4,500 \times 70\% \times 1.0947 = 3,448$ umbrellas per month, So each category can sell = 1,035:1,380:1,035 umbrellas per month.

The revenue of year 2005-2006 and the umbrella quantity sold per month are shown in Table 7-18

Table 7-18 : Estimated Revenue from Umbrellas Sold Per Month for Year 2005-2006

	2005			2006		
	Small	Medium	Large	Small	Medium	Large
Prices of Umbrella (Baht)	40	120	875	42	125	920
Quantity Sold in Domestic (Umbrella)	405	540	405	446	595	446
Quantity Sold in International (Umbrella)	945	1,260	945	1,035	1,380	1,035
Total Quantity Sold (Umbrella)	1,350	1,800	1,350	1,481	1,975	1,481
Sales Value (Baht) = PxQ	54,000	216,000	1,181,250	62,202	246,875	1,362,520
	1,451,250			1,671,597		

III. Costs Projection

To study costs of this company most information come from interview Mr. Kiattipong. This study divides costs into variable cost and fixed cost. Most costs of this company are raw materials; the company has 117 staffs including monthly staffs, daily staffs and subcontractors. Mr. Kiattipong said in the past this company has average variable cost about 70%, fixed cost about 10% and net profit margin about 20% of total sales value. Because handicraft umbrella industry is very small and is the native industry so there is no other company's financial statement to adjust or compare with. Then this study will estimate costs of the company by using wooden product index from Thailand Input-Output Table year 2000 in Table 7-19 and 7-20 from National Economic and Social Development Board (NESDB) to be guideline and combine with interviewed data from field trip and telephone with Mr. Kiattipong to identify fixed and variable costs. He said that year 2006 company would control costs at 80% of total sales value then costs structure of this company by total sales show in Table 7-19 and 7-20. And because lack of information this study use costs structure per sales to estimate some cost in year 2005 such as tax and fees, and raw materials.

Table 7-19 : Wooden Product Input-Output Table Year 2000 as Percentages by Costs
Unit: Percent

	By Total Costs
Raw Material	49.80
Wages and Salaries	16.49
Administration Cost	27.67
Depreciation	4.84
Taxes and Fees	1.19
Total	100.00

Source: Input-Output Table year 2000, National Economic and Social Development Board,
http://www.nesdb.go.th/econSocial/macro/NAD/4_10/data12.xls

Table 7-20 : Wooden Product Input-Output Table Year 2000 as Percentages by Sales
Unit: Percent

	By Total Sales
Raw Material	39.84
Wages and Salaries	13.20
Administration Cost	22.14
Depreciation	3.87
Taxes and Fees	0.95
Profit	20.00
Total	100.00

Source: Input-Output Table year 2000, National Economic and Social Development Board,
http://www.nesdb.go.th/econSocial/macro/NAD/4_10/data12.xls

a. Fixed Costs

Fixed costs are the expenses which company has to pay every period of time even though they produce products or not. Fixed costs of this company are

1. Land and building rent: this company rent land and building from Mr. Thawin Buajeen who is the owner of this company which company pays 50,000 Baht per month. Because this company rents building from the owner so they have no depreciation expense in their financial statement.
2. Salary: Mr. Kiattipong said this company has monthly employees for 40 persons and there are 12 sales-staffs who got based salary on the average 3,000 Baht per month and the other is executive and administration staffs. The average salary of executive and administration staffs is 5,000 Baht per month. So total monthly salary is

$$(12 \times 3,000) + (28 \times 5,000) = 176,000 \text{ Baht per month in year 2005}$$

For year 2006 Mr. Kiattipong said salary might raise for headline inflation rate (in Assumption 2) plus premium at 5% that total salary will be increase for 10% as follow

$$\text{Salary year 2006} = 176,000 \times 1.10 = 193,600 \text{ Baht per month}$$

3. Administration and operation expenses: such as electricity, water supply and treatment, telecommunication, healthy and welfare. Mr. Kiattipong said administration and operation costs are about 3% of total sales. The estimate expenses are as
 - Year 2005 are $1,451,250 \times 3\% = 43,538$ Baht per month.
 - Year 2006 are $1,671,597 \times 3\% = 50,148$ Baht per month.
4. Tax and fees: company has social security expense, excise tax, signboard tax, from Input-Output Table taxes and fees is 0.95% of total sales that is

$$\text{Tax and fees year 2005} = 1,451,250 \times 0.95\% = 13,787 \text{ Baht per month.}$$

Tax and fees year 2006 = $1,671,597 \times 0.95\% = 15,880$ Baht per month.

Then total fixed costs of year 2005 are $50,000 + 176,000 + 43,538 + 13,787 = 283,325$ Baht per month. And total fixed costs of year 2006 are $50,000 + 193,600 + 50,148 + 15,880 = 309,628$ Baht per month.

Table 7-21 : Total Fixed Costs Per Month Year 2005-2006

Unit: Baht

	2005	2006
Total Fixed Costs	283,325	309,628

b. Variable Costs

Variable costs are the expenses vary to number of product made. This means if company produces more product then variable costs will be rising. Variable costs of this company can be divided into

1. Raw materials: there are many materials assemble into umbrella such as softwood, bamboo and Sa paper but due to lack of information. This study estimates material by using wooden product from Input-Output Table year 2000 and arrives at the proportion of raw materials as percentage of total sales is 39.84%, so estimated raw materials expenses year 2005-2006 are as follow:

Year 2005 = $1,451,250 \times 39.84\% = 578,178$ Baht per month.

Year 2006 = $1,671,597 \times 39.84\% = 665,964$ Baht per month.

2. Wages: there are 70 daily employees with the minimum wage 147 Baht per day in year 2005 and 153 Baht per day³ in year 2006. The average working day is 22 days per month. Total wages of this company per month are

Year 2005 = $70 \times 147 \times 22 = 226,380$ Baht per month

Year 2006 = $70 \times 153 \times 22 = 235,620$ Baht per month

And this company has 67 subcontractors in making frame, assembly and painting process. Year 2005 Company pays the average 2 Baht for small size umbrella, 6 Baht for medium size umbrella and 45 Baht for large size umbrella. Year 2006 Company should raise wages for headline inflation rate at 5%. Then the estimate subcontracting expenses per month are

Year 2005 = $(1,350 \times 2) + (1,800 \times 6) + (1,350 \times 45) = 74,250$ Baht

Year 2006 = $[(1,481 \times 2) + (1,975 \times 6) + (1,481 \times 45)] \times 1.05 = 85,530$ Baht

³ Minimum wages, Department of Labour Protection and Welfare,
<http://www.labour.go.th/news/file/WageRate.pdf>

3. Selling expenses: salesmen and saleswomen will receive commission of 1.5% from sales value. So commission of this company in year 2005 and 2006 can be calculated by the formula

$$\text{COM} = \text{TS} \times 10\%$$

In which, COM = Commission from sales
 TS = Total sales

Commission per month year 2005 = $1,451,250 \times 1.5\% = 21,767$ Baht per month

Commission per month year 2006 = $1,671,597 \times 1.5\% = 25,074$ Baht per month

Then total variable costs of year 2005 are $578,178 + 226,380 + 74,250 + 21,767 = 900,575$ Baht per month. And total variable costs of year 2006 are $665,964 + 235,620 + 85,530 + 25,074 = 1,012,188$ Baht per month.

Table 7-22 : Total Variable Costs Per Month Year 2005-2006

Unit: Baht

	2005	2006
Total Variable Costs	900,575	1,012,188

Mr. Kiattipong said this company is a small family business and Mr. Thawin Buajeen, the owner of this company, is conservative so their financial structure has no debts which makes this company has no interest expenses in the financial statement.

IV. Projected Profits and Losses

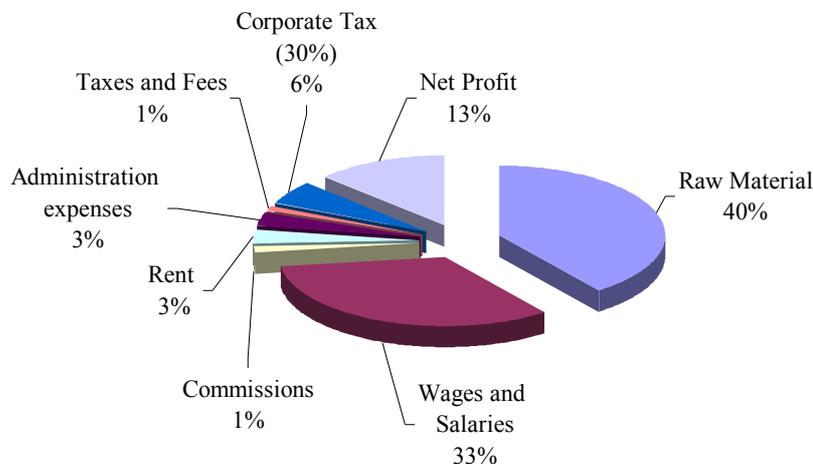
After Revenues and costs projections. Then the data can be rearranged into proforma income statement as follow

Table 7-23 : Estimated Profits and Losses and Common Size Income Statement

Umbrella Making Center 1978 Co., Ltd.
Proforma Income and Common Size Statement

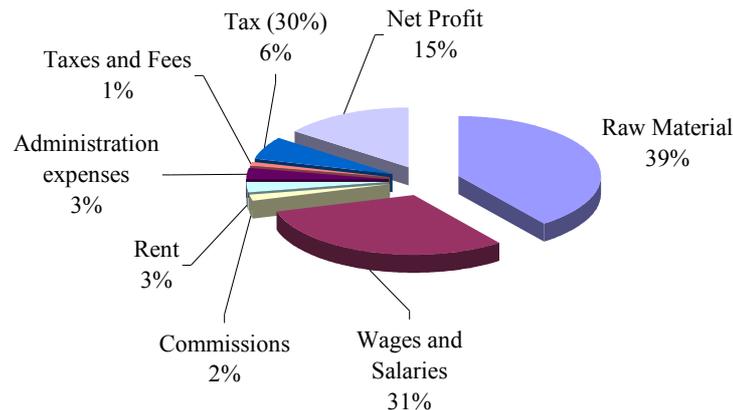
	2005	% 2005	2006	% 2006	Change	%Change
						Unit : Baht
Revenue (Sales Value)	17,415,000	100.00%	20,059,164	100.00%	2,644,164	15.18%
Raw Material	6,938,136	39.84%	7,991,568	39.84%	1,053,432	15.18%
Gross Profit	10,476,864	60.16%	12,067,596	60.16%	1,590,732	15.18%
Wages and Salaries	5,719,560	32.84%	6,177,000	30.79%	457,440	8.00%
Commissions	261,204	1.50%	300,888	1.50%	39,684	15.19%
Rent	600,000	3.45%	600,000	2.99%	-	0.00%
Administration expenses	522,456	3.00%	601,776	3.00%	79,320	15.18%
Taxes and Fees	165,444	0.95%	190,560	0.95%	25,116	15.18%
Total expenses	7,268,664	41.74%	7,870,224	39.24%	601,560	8.28%
Earning before Tax	3,208,200	18.42%	4,197,372	20.92%	989,172	30.83%
Tax (30%)	962,460	5.53%	1,259,212	6.28%	296,752	30.83%
Net Profit	2,245,740	12.90%	2,938,160	14.65%	692,420	30.83%

Figure 7-5 : Costs Structure by Total Sales Year 2005



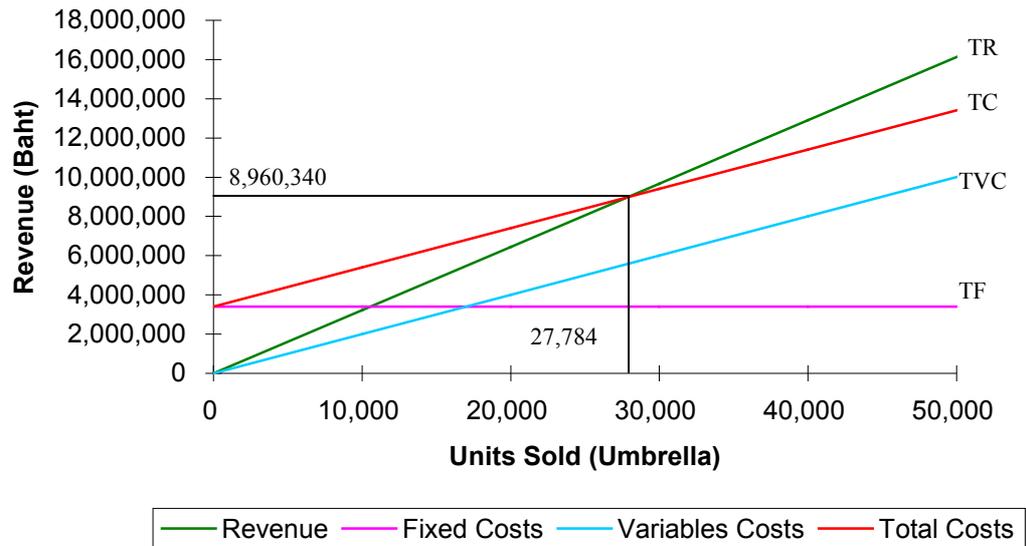
As shown in the Proforma Income and Common Size Statement. This company's revenue in year 2006 increases 2,644,164 Baht per year or 15.18%, as the result of quantity of sales and prices increase. Raw materials costs increase 1,053,432 Baht per year or 15.18% and 39.84% of sales value. So company's gross profit in year 2006 increases 1,590,732 Baht or 15.18% but total expenses in year 2006 increases only 601,560 Baht or 8.28% that increases company earning before tax by 989,172 Baht or 30.83%. After paying corporate tax at 30%, company's net profit increases 692,420 Baht or 30.83%. Figure 7-5 and 7-6 show costs structures of company year 2005-2006 which the percentages of wages, salaries and rent in year 2006 are less than those of the year 2005, but company has to pay corporate tax higher than year 2005 from increased profit. From the proforma income statement, the net profit increases with the higher rate than revenue. The other financial statement that applied to analyze is common size income statement shown in Table 7-23. Figure 7-5 and 7-6 show pie chart for costs structure year 2005 and 2006.

Figure 7-6 : Costs Structure by Total Sales Year 2006

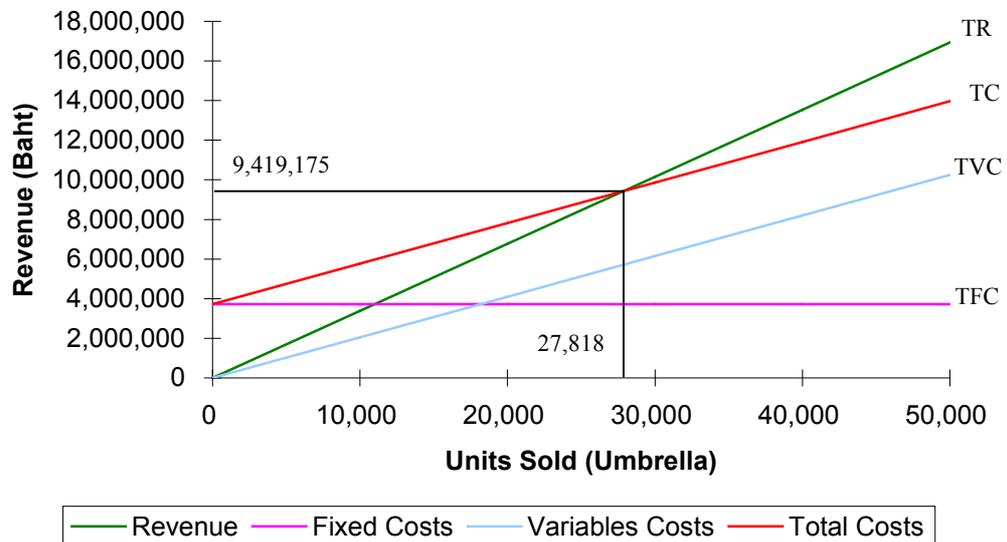


V. Break-Even Analysis

Break-even point is the point that revenue of company covers all costs. In calculating break-even, there are many methods to calculate but most of all are uses the equation that makes total revenue equal to total costs ($TR = TC$). The company has sales value as shown in Table 7-18, fixed and variable costs as shown in Table 7-21 and 7-22. After that, combine all variables into charts and identify break-even point both sales value and units sold.

Figure 7-7 : Break-Even Analysis Year 2005

As in cost projection the estimated fixed costs are 3,399,900 and 3,715,536 Baht in year 2005 and 2006. The estimated variable costs in year 2005 and 2006 are 10,806,900 and 12,146,256 Baht. Estimated total Costs in year 2005 and 2006 are 14,206,800 and 15,861,792 Baht.

Figure 7-8 : Break-Even Analysis Year 2006

As shown in Figure 7-7 and 7-8, break-even point of the company is 27,784 umbrellas or 8,960,340 Baht in year 2005. For year 2006 break-even point is 27,818 umbrellas or 9,419,175 Baht. That's mean in year 2005 if company sold 27,784 umbrellas and 27,818 umbrellas in year 2006. They'll cover all costs and after that they will enjoy profits every units sold. Or in year 2005 if the company has sales value 8,960,340 Baht and 9,419,175 Baht in year 2006 they'll cover all costs after that are the company's profits. If the proportions of each umbrella size

are the same as the estimated at 0.3:0.4:0.3 then break-even of each size of umbrellas are shown in Table 7-24.

Table 7-24 : Break-Even Analysis

	2005	2006
Break-Even Point (Unit)	27,784	27,818
-Small	8,335	8,345
-Medium	11,114	11,127
-Large	8,335	8,345
Break-Even Point (Baht)	8,960,340	9,419,175
-Small	333,408	350,507
-Medium	1,333,632	1,390,900
-Large	7,293,300	7,677,768

VI. Financial Ratios and Analysis

This part tries to find out ratios, which measure company's performance. But this study has only estimated income statement so this study can measure only 4 ratios as follow

1. Gross profit margin: ratio which is a direct reflection of cost of good sold to obtain the sales, the formula is

$$\text{Gross profit margin} = \frac{\text{Net sales} - \text{Cost of goods sold}}{\text{Net sales}}$$

As in the estimated common size income statement we got in year 2005 and 2006 the company has the same gross profit margin at 60.16%. This company has profit after cost of goods sold at 60.16% which company can pay for other expenditures.

2. Net profit margin: because this company uses financial structure from the equity 100% so there are no interest expenses in financial statement so we found that earning before interest and tax (EBIT) is equal to operating profit margin which all profit after operation to calculate corporate tax 100% and we got net profit margin, profit ratio which company can retain for future investment or pay back to their owners, the formula is

$$\text{Net profit margin} = \frac{\text{Net profit}}{\text{Net sales}}$$

For this company's net profit margin is 12.9% in 2005 and 14.65% in 2006. this ratio show that year 2006 company has better performance than year 2005 because operating expense decrease then company can generate profit from one unit sale more than year 2005 and year 2006 company has profit to retain or pay back to their owner more than 2005.

3. Earnings per shares (EPS): this ratio display that each share gain how many earning from investment, the formula is

$$\text{Earnings per share} = \frac{\text{Net profit}}{\text{Total number of share}}$$

Mr. Kiattipong said this company has total registered shares 45,000 shares⁴ at par 100 Baht, generate net profit 2,245,740 in 2005 and 2,938,160 in 2006 then earning per shares (EPS) equal

$$\text{EPS year 2005} = \frac{2,245,740}{45,000} = 49.91 \text{ Baht}$$

$$\text{EPS year 2006} = \frac{2,938,160}{45,000} = 65.29 \text{ Baht}$$

That is return per share if investors invest in this company year 2005 and 2006 are 49.91 Baht and 65.29 Baht per share.

Table 7-25 : Financial Ratio Analysis

	2005	2006
Gross Profit Margin	60.16%	60.16%
Net Profit Margin	12.90%	14.65%
Earnings Per Share	49.91 Baht	65.29 Baht

VII. Conclusions and Problems

This financial part does not base on the financial statement of the company but it's only on estimation by compiling data from Bank of Thailand (BOT), numbers of tourists from Tourism Authority of Thailand (TAT), Input-Output Table from National Economic and Social Development Board (NESDB), interviewed data with Mr. Kaattipong Pipatjariya The Manager of Human Resource Department, *Umbrella Making Center 1978 Co., Ltd.* and etc. To estimate financial statement this study needs to assume some factors influencing variables in the model. After setting assumptions then analyze revenue structure, which come from interviewed data, and tourism structure. Next is studying costs structure that have many variables which can be classified into two major categories – Fixed cost and Variable cost – After that this study uses all information to write-up financial statement and common size to study profit and loss of firm. Then identify break-even point of firm to find out what sales volume the firm begins to make profit. It is very useful to firm to know at what point of sales exceed total cost. Moreover, studying financial ratio is one of the ways to know what strength and weakness they have.

⁴ Opcit

For this company there are some weaknesses that they should discuss and find the way to solve problem such as

1. The company just registered as “Company limited” for 2 months so the standard of accounting is not properly maintained.
2. This company buys raw materials from domestic suppliers but there is uncertainty about prices of raw materials.
3. From the interview with Mr. Kiattipong. This company tries to set price maintaining margin at 20% but due to last problem company cannot predict prices of raw materials for setting prices of products.
4. This company uses financial structure from only equity that they shouldn't take tax shield benefit from debts.
5. For international trade, company quotes prices at ordering date but they receive money after the dispatch so they have exchange rate risk that they may not get money as they expected.

VIII. Recommendations

1. Company needs financial advisor to guide and plan the way to do their accounting.
2. Most suppliers of company have long relationship and be native so company should make future contract that company can control prices of raw materials and can predict cost of finished products.
3. Due to recommendation 2 if company can control prices of products then they can set prices to maintain margin at 20%.
4. Company should persuade their suppliers to get trade discount and credit term, moreover, company should find out their optimal financial structure between debts and equity. The optimal structure makes company's cost of capital lowest and equity value highest.
5. When company gets orders and quote prices, company should sell currency at forward rate to make sure that company will gain expected revenue.