



UNIVERSITI PUTRA MALAYSIA

**A CASE STUDY ON
CHUNGHWA PICTURE TUBES (MALAYSIA)
SDN BHD**

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A CASE STUDY
ON
CHUNGHWA PICTURE TUBES (MALAYSIA)
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PENGESAHAN KEASLIAN LAPORAN

Dengan ini, saya Yii Kiong Ung (No matrik : 45171), pelajar program Master in Business Administration mengaku bahawa kajian kes ini adalah hasil asal saya sendiri.



Tandatangan

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ABSTRACT

The success of business organizations depends highly on the various decisions made by the management at the strategic level like products decision, financing decision and human resource decisions.

This case is prepared with the purpose of looking into the internal factors, industry factors and general environments' factors affecting an organization that should be considered in decisions making at the top management level.

Part I of this paper presents the information on the internal and external aspects of the organization. Part II of this paper presents analysis on the internal and external factors. Alternative courses of actions, evaluation and recommendations are then given for strategic decisions making for the organization based on the analysis performed.

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PART I

Chapter 1: Background and information on CPTM

1.1 Critical Incident

Ray Chang, the Chief Executive Officer of Chunghwa Picture Tubes (Malaysia) Sdn Bhd (CPTM) sat in his office after a long management review meeting an hour ago thinking of the comments made by his senior staff concerning the previous month performance of the company. The Finance Manager, Richard Wu, reported in the meeting about the 8% net profit ratio for CPTM in the previous month. “There has been an increase in both sales revenue and profit in the past couple of months as a result of the currency woes”, said Richard.

“Until the moment, the currency woes seems to benefit us because our sales were quoted in US Dollar and our revenue in Ringgit Malaysia increased about 30% and we managed to end up with positive US Dollar cash flow even though we need to pay for our foreign suppliers”, added Richard . “Our sales volume and unit price did not increase, actually the unit price was no better than 9 months ago when we only managed to break-even”. “I really did not think that we have gone through the bad times, Mr President”, said Richard . “We need to come out with some plans because the 8% profit ratio simply could not justify the amount of risk and monetary commitment we had assumed in this type of industry”, mentioned Richard. “Going at the current high interest rate, we were actually loosing out from our investment”, said Richard . “I am worried of the currency woes

because we assumed liability of US\$ 90 million when we borrowed to finance our two production lines and the auditors insisted that we recognize the forex losses at the year end”, “ I am thinking of the best financing strategy for the future, the currency is depreciating and the funds is getting more expensive”, added Richard .

Ray had a discussion with his senior staff pertaining to the severe decrease in price of about 46% for 14 inch CDT, one of the major and very important product of the company. “Perhaps, we should go ahead with production of 15 inch and 17 inch CDT, Mr President” , said Johnny Shih, the plant manager. “Our competitor, Samsung, had increased the market share by widening the range of products” said Sunny Sung, the Sales Senior Manager who supported the plant manager.

Ray appeared to be very worried of the comments made by his people and he realized that he would have to work extremely hard to overcome the situation faced by the company. Ray had spent much of his time during the past few months initiating and implementing programs aiming at productivity increment and generation of innovative ideas from the employees as part of the efforts to overcome the current situation of the company. While low employees motivation remained as a problem to be solved since Ray took over the management of CPTM 4 years ago, the recent prices decrease for 14 inch CDT had caused the company to suffer and the depreciating Ringgit added more to the challenge for Ray. As the top person in CPTM, Ray knew that he had the responsibility of initiating a production plan to restore the financial performance of the company and to

increase the commitment of employees besides hoping that Richard would have the answer for a suitable financing strategy for CPTM.

1.2 Introduction to Chunghwa Picture Tubes (Malaysia) Sdn Bhd (CPTM)

Chunghwa Picture Tubes (Malaysia) Sdn Bhd (CPTM) was incorporated in 1989 under encouragement from the policies of the Malaysian Government industrial development incentive program. CPTM was established and wholly owned by Chunghwa Picture Tubes Ltd (CPTT) Taiwan, a manufacturer of Color Cathode Ray Tube (CCRT). Initially CPTM produced Color Mount or Color Electron Gun, an important component for the production of CCRT for the use of production of CCRT in Taiwan. Gradually after its establishment supported by the favorable economic development in South East Asia and the skyrocketing labor and production cost in Taiwan, CPTM took over the production of CCRT from its holding company in Taiwan and started off with the production of CCRT in 1991.

From its first production line established in 1991, CPTM undergone a series of expansion program until today with eight production lines producing CCRT in its factory located at Batu Tiga in Shah Alam. CPTM production facility in Shah Alam had been the largest overseas investment made by CPTT outside Taiwan besides investments in CCRT production in China and United Kingdom. CPTM was proud to be among the largest investment ever made by Taiwanese investor in Malaysia with a total paid up capital of RM 600 million at end of November 1997 and investment in fixed assets, plant and machinery of RM780 (net book value as at end of November 1997). CPTM started to

make profit in 1991 and achieved a record profit of more than RM500 million in 1995 and 1996.

The Malaysian Government particularly had been very supportive of the growth in foreign investment especially in hi-tech manufacturing and this contributed to the growth in profitability of CPTM when the company was granted pioneer status in 1991 for a period of five years and subsequently extended for another five year until year 2001. Since its establishment in 1989, the management of the company consisted of personnel from the holding company in Taiwan. They had the intention of keeping the investment in Malaysia in the long-term and promote participation from local investors by offering share holding in the company to local investors through floatation of its share in the Kuala Lumpur Stock Exchange.

1.3 Products of CPTM

CPTM manufactured Color Cathode Ray Tube (CCRT) which consisted of Color Picture Tube (CPT) for color television sets and Color Display Tube (CDT) for computer monitors. Products manufactured by CPTM were as follows :

(a) Color Picture Tube (CPT)

CPT was used in color television set and CPTM produced CPT with the size of 14 inch, 20 inch and 21 inch. CPT was the product that CPTM first produced in 1991 and had been the major product of CPTM until 1993 before the company

started off with production of CDT. CPTM had 3 lines capacity for production of 14 inch CPT with each line capable of producing 165,000 units per month.

The capacity for 20 inch and 21 inch CPT was maintained at one production line with monthly capacity of 135,000 units per month. The production of CPT was quite stable with no major problem in production. The monthly production quantity was quite stable due to the stable demand in CPT with no sharp fluctuation in demand and supply in the CPT market. As CPT was an important component for color television, its market was largely affected by the demand for color television sets.

Except for a small number of third world countries that were experiencing strong economic development, the color television market had become more and more saturated and growth in demand had been towards larger size televisions (25 inch or over). The smaller size television (21 inch or less) had been facing competition especially due to the decreasing price of larger size televisions.

The CPT market as a whole was expected to continue to grow at a stable rate of 3-5% per annum worldwide largely due to growth in larger size televisions. As for smaller CPT produced by CPTM, demand was expected to be stagnant and mainly came from demand of smaller size televisions from developing countries where affordability to larger size television was lower.

(b) Color Display Tube (CDT)

CDT was used in computer monitors and CPTM produced CDT with the size of 14 inch that had been commonly used as monitors for personal or desktop computers. CPTM started production of CDT of the size of 14 inch in 1993 with one production line and had undertaken a series of expansion to increase its capacity for 14 inch CDT to four production lines with each line capable of producing 150,000 units per month.

CPTM built up its reputation in the global market through involvement in the CDT market and CDT had become a major source of revenue not only to CPTM but CPT group (consist of CPTT and its overseas subsidiaries) as a whole until 1996. The importance of CDT sales was evidenced when CPT group became the third largest producers of CCRT in the world largely because of its strength and capacity in production of 14 inch CDT. The traditional CDT size of 14 inch for monitors of personal computers in recent years had started to be replaced by larger sizes of CDT (15 inch, 17 inch and 20 inch CDT).

The 15 inch and 17 inch CDT were expected to take over the market position of 14 inch CDT largely because of use of larger size computer monitors in business and industry. Despite the expectation that the market of CDT moved towards larger sizes of CDT, CPTM had not developed its production capacity in these products.

Chapter 2 : Internal environment

2.1 Existing production and sales situation and future production strategy for CPTM

Ray Chang was a person well-versed with the industry and market situation of CCRT. From the changing trend in the demand of CCRT, he felt that CPTM had to produce new products to survive and to support the CPT group as a whole. A discussion at the top level was carried out regarding venturing into the production of 15 inch and 17 inch CDT in addition to the existing production of 14 inch CDT, 14 inch CPT, 20 inch and 21 inch CPT.

Ray had considered that the target for CPTM would be : “ to succeed in production of 15 inch and 17 inch CDT to be in line with market trend in order to maintain its competitiveness in the CCRT industry”. Please refer chapter 3 for the information on market demand, market share and competition and market supply.

The existing production and sales situation for CPTM by products during the last six months were as follows:

Table 2(a) : Capacity and actual production level by products (in units) (April to September 1997).

| Year 1997 | 14 inch CPT (3 production lines) | 14 inch CDT (4 production lines) | 20 and 21 inch CPT (1 production line) |
|---------------------------|-------------------------------------|-------------------------------------|---|
| April | 254,420 | 298,019 | 102,056 |
| May | 259,513 | 190,745 | 99,584 |
| June | 402,403 | 219,362 | 92,187 |
| July | 427,277 | 296,246 | 97,616 |
| August | 389,139 | 269,631 | 123,462 |
| September | 418,891 | 343,927 | 117,104 |
| Average monthly | 358,607 | 269,655 | 105,335 |
| Actual monthly capacity | 495,000 | 600,000 | 135,000 |
| Capacity utilization rate | 72.44% | 44.94% | 78.03% |

Table 2(b) : Capacity and actual sales volume by products (in units) (April to September 1997).

| Year 1997 | 14 inch CPT | 14 inch CDT | 20 and 21 inch CPT |
|-------------------------|-------------|-------------|--------------------|
| April | 315,661 | 328,390 | 87,065 |
| May | 332,543 | 184,319 | 105,903 |
| June | 435,028 | 251,205 | 88,796 |
| July | 434,708 | 277,391 | 99,307 |
| August | 419,565 | 314,730 | 112,931 |
| September | 490,953 | 451,763 | 122,892 |
| Average monthly | 404,743 | 301,299 | 102,816 |
| Actual monthly capacity | 495,000 | 600,000 | 135,000 |
| Sales to capacity ratio | 81.77% | 50.22% | 76.16% |

The capacity utilization rate for CPTM was low during the six month period from April to September. For 14 inch CDT, the utilization rate was only about 44.94% resulting in 55.06% of capacity cushion due to decreasing sales because of oversupply in the 14 inch CDT market. This was due to the low sales level for 14 inch CDT as compared to the level of capacity (about 50.22%) available for this product as a result of the oversupply situation in the 14 inch CDT market. Ray Chang considered that the shift in production of CDT was likely to be the way to bring CPTM on par with other major producers in

the CDT market and he would seriously consider anything to ensure the survival of CPTM.

The technical aspect for production of larger size of CDT to a large extent similar to production of 14 inch CDT in term of processes, machine and equipment required and level of job knowledge of workers. The only difference among the 14 inch and larger size of CDT was in term of raw material requirement where the monitor with the larger size would require larger screen and therefore larger glass or panel. As such, the machine needed to be configured to facilitate the larger size raw material (glass) and some adjustment needed to be made to the existing production lines for 14 inch CDT to produce larger size of CDT. Adjustment of machine and equipment to accommodate production of 15 inch and 17 inch CDT was estimated to cost about RM30 million per production line.

2.2 Organization Structure Of CPTM

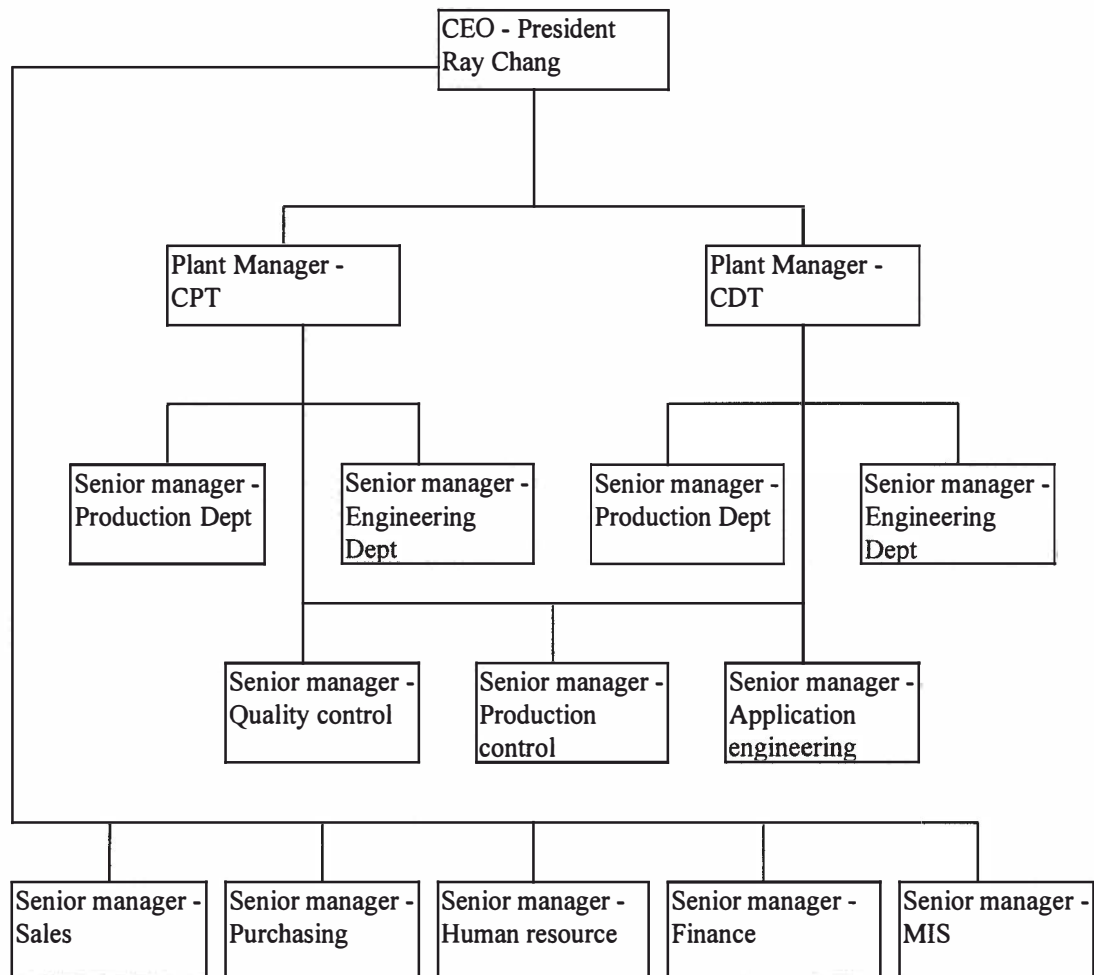
CPTM was organized according to functions with each department headed by a departmental head and in charge of his own area of specialization. This organization structure was used since 1989 with each functional department headed by an expatriate from Taiwan. There were two plant managers who report directly to the President each in charge of CPT and CDT. Plant managers were assisted by respective senior managers in production and engineering. The two plant managers were also assisted by senior managers in quality control, application engineering and production control.

Apart from production matters, the President was advised by supporting senior staff from respective functional department in matters related to respective area of specialization like purchasing, human resource, sales, finance and MIS. The various functional departmental heads not only report directly to the President in matter pertaining to the company, they also needed to refer to their respective functional head in the holding company level for broad direction and strategic plan.

The President himself did not select the various departmental heads who were actually being assigned the position in CPTM by their respective functional heads in CPTT. Initially, expatriates from the holding company were assigned the position in CPTM mainly because of the type of skills and knowledge required by technical and production departments were not readily found among local personnel in Malaysia during the time when CPTM established its operation.

It was initially intended by the top management that eventually the management of CPTM be localized and taken over by local personnel to facilitate the floatation exercise of CPTM in the Malaysian Stock Exchange. Since then, CPTM actually trained a number of local personnel and created a middle level management consist of local personnel in charge of the various functional areas. Those middle level managers reported directly to the expatriates or the respective functional heads.

Organization Chart for CPTM



2.3 Finance

CPTM started off its operation in 1989 with losses until 1991 when the company finally began to make profits. Over the years, the revenue and profits of CPTM increased significantly starting from year 1991 and achieved the historical highest result in 1996 when the company made about half a billion ringgit net profit and achieved turnover of more than Ringgit two billion with a net profit ratio of more than 20%.

The company was granted pioneer status by the Malaysian government until year 2001. CPTM was able to declare a dividend of RM300 million in year 1995, RM450 million in 1996 and an interim dividend of RM300 million in 1997 based on the past financial performance and the large amount of retained earnings. CPTM began its operation in 1997 with a financial result far from the actual result achieved until end of 1996 when the 14 inch CDT price dropped sharply due to oversupply in the market. The actual financial result and forecast results for year 1997 and 1998 were as follows:

Actual Income statement (1991-1996) in million Ringgit Malaysia

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|------------------------|-------|--------|--------|---------|---------|---------|
| Turnover | 228.6 | 554.2 | 928.3 | 1,656.2 | 2,004.9 | 2,084.2 |
| Net Profits | 16.0 | 67.4 | 161.9 | 351.1 | 530.6 | 567.0 |
| Net Profits ratio | 6.99% | 12.16% | 17.44% | 21.20% | 26.47% | 27.20% |
| Net earnings per share | 0.07 | 0.29 | 0.69 | 1.49 | 0.88 | 0.95 |
| Dividend per share | - | - | - | - | 0.50 | 0.75 |

Income statement for year 1997 in million Ringgit Malaysia

| | Actual 1/1-31/10/97 | Forecast 1997 |
|------------------------|---------------------|---------------|
| Turnover | 1,087.5 | 1,361.8 |
| Net profits | 47.8 | 61.8 |
| Net profits ratio | 4.39% | 4.54% |
| Net earnings per share | 0.08 | 0.10 |

The actual results for the first ten months of 1997 suggested that CPTM would not be able to repeat the achievement in 1996 where net profits ratio was as high as 27.2%. The actual net profits ratio was only 4.39% until October 1997 and was expected to be 4.54% for 1997. The turnover for 1997 was expected to be RM 1.3 billion, a sharp decrease from 1996. This situation was due to the decrease in prices and sale of 14 inch CDT that consisted of more than 65% of total sales starting from year 1994 when CPTM started to produce 14 inch CDT in addition to CPT. For the first seven months of 1997, CPTM was actually making losses from sale of 14 inch CDT because of low capacity utilization rate, low sales volume and low selling price. The CPT products however still continued to make profits for CPTM and was able to cover the losses suffered from the 14 inch CDT during the period when CPTM suffered considerably from excessive price competition in the 14 inch CDT market. The currency crisis in July 1997 however brought some cheers to CPTM because of the selling price quoted in US\$ resulted in higher ringgit value and improved the bottom line by increasing the revenue in ringgit term. At the same time

however, the depreciation in Ringgit caused unrealized foreign exchange losses of about RM 84 million for year ending 1997.

Balance sheet as at end of year 1994-1997 in million Ringgit Malaysia

| | 1994 | 1995 | 1996 | 1997 * |
|---|------------------------------|------------------------------|------------------------------|------------------------------|
| Current Assets | 468.2 | 495.8 | 623.9 | 541.8 |
| Fixed Assets | 584.0 | 875.0 | 782.5 | 789.8 |
| Other Assets | 31.9 | 46.3 | 254.3 | 254.3 |
| <i><u>Total Assets</u></i> | <i><u>1,084.1</u></i> | <i><u>1,417.1</u></i> | <i><u>1,660.7</u></i> | <i><u>1,585.9</u></i> |
| Short-term loan | - | - | 298.9 | 346.4 |
| Current Liabilities | 189.4 | 321.8 | 197.7 | 269.0 |
| Other Liabilities | 26.8 | - | - | - |
| <i><u>Total Liabilities</u></i> | <i><u>216.2</u></i> | <i><u>321.8</u></i> | <i><u>496.6</u></i> | <i><u>615.4</u></i> |
| Common Shares | 235.1 | 600.0 | 600.0 | 600.0 |
| Preference Shares | 45.0 | 45.0 | - | - |
| Retained Earnings | 587.8 | 450.3 | 564.1 | 306.9 |
| Other Reserve | - | - | - | 63.6 |
| <i><u>Total Liabilities and Equities</u></i> | <i><u>1,084.1</u></i> | <i><u>1,417.1</u></i> | <i><u>1,660.7</u></i> | <i><u>1,585.9</u></i> |

**** forecast***

Over the years, CPTM had healthy financial position with total assets to total liabilities ratio of more than 2.5 times from year 1994 to 1997. There had been no long-term liabilities due to sufficient cash flow generated from operation and CPTM was able to redeem the preference share issued in 1996 by using the excess cash and retained earnings generated from operation. Besides, CPTM had also able to make long-term investment in the form of quoted shares in the Kuala Lumpur Stock Exchange with the investment amount stated at RM 254.3 million as at end of 1997. The expected retained earnings at end of 1997 showed a dilution from that of previous year due to payment of dividend and low net profits for year 1997. Current liabilities of more than RM 600 million as at end of 1997 showed an increase in amount as compared to 1996 due to restatement of short-term US\$ loan in term of Ringgit book amount due to devaluation of Ringgit against US\$. The repayment of the US\$ loan would be a very important aspect of financing operation especially in the longer term even though the unrealized losses arising from the loan had been accounted for in the forecast for year 1997.

In 1989 when the company was first established, financing basically came from the holding company in Taiwan in the form of share capital injected into the company. A more aggressive financing strategy was adopted in 1994 when preference share was issued to Malaysian investors even though the financing strategy still remained basically under equity financing. The company was able to pay off the preference share holders in 1996 due to the fine financial performance and huge profits earned in 1995 and 1996. In 1996, the company began to start with debt financing to replace equity financing by taking up short and medium term loan from onshore and offshore financial institutions.

2.4 Sales organization and effort

CPTM customers were mainly television and monitor manufacturers. CPTM sales strategy was to maintain long, direct, steady, and close relations with its customers. Basically, the sales and marketing department at the holding company was responsible for market penetration and sourcing of new customers. Sales and marketing plan would then be drawn up for the implementation of the subsidiary companies overseas. CPTM had its own sales team taking care of its customers especially television and monitor manufacturers based in South-east Asia, Europe, Latin America and East Asia. CPTM sales strategy was quite successful in the region considering that CPTM had some well-known customers like Acer, Lite-on, Sharp-Roxy, Thomson and Funai.

In the South-east Asia region, CPTM faced severe competition from its major competitor, Samsung that was located in Nilai, Negeri Sembilan. CPTM was able to handle competition from Samsung by capitalizing on lower cost of production especially in the 14 inch CDT in the past due to larger scale of production that resulted in higher benefits from economies of scale. This had caused CPTM particularly and CPT group generally to emerge as market leader in the 14 inch CDT market. The market of 14 inch CDT had been under oversupply situation since the end of 1996 and prices dropped significantly for about 46% that resulted in losses for some of the CDT producers. As a whole, most producers of 14 inch CDT suffered due to the price competition but CPTM still able to maintain its dominance due to relatively lower selling price as a result of lower cost of production.