

University of Bradford
School of Management

Postgraduate Full time MA

Accounting and Finance

Course leader: Les Chadwick

Tutor: Dr Mohammed Hudaib

Words count: 3243

UB NO	Family	First	Course	Group	Team
0401326	Tan	Zhe	IBM	A	11c
0401001	Yang	Xiuwei	IBM	A	11c
0400370	Su	Chin-Yi	IBM	A	11c

0301355	Yamamoto	Takao	IBM	A	11c
0400150	Troyanovsk	Kateryna	IBM	A	11c
0301367	Yang	Dailin	IBM	A	11c

03-12-04

Introduction

The Lee Chew Cheng Wong Chemical Company produces high quality speciality chemicals, and it exports around 85% of its output to many countries and regions. Since the establishment in the mid 1980 this company has emphasized the shareholder value. To keep this focus, a new Chief Executive Lee Shan Loke Teo has proposed a lot of new policies. This assignment evaluates the financial ratios with Sun See Chemical Company and average industry, and presents the financial effect of the proposal that Lee Shan Loke Teo adopts. That final section shows the recommendation of costing system and capital expenditure budget.

Evaluate the financial performance

As the profit and loss account shows, the Lee Chew Wong Chemical Company's net sales decreased from \$5.6m to \$4.2m, and the gross profit reduced from \$1.8m to \$1.5m, while in 20x9 the retained profit of the company reached the peak of \$0.4m during this period. Although the sale volumes decreased, the profits went up. From the financial statement it can be found that the difference is due to the large operation expenses which eliminate the profit between 20x8 and 20x9, and the less retained profit also results the decrease of Earning per share. Therefore, the EPS and Retained Profit in 20x9 were higher than 20x8 and 20x7. As regards the balance sheet, in 20x9 the total asset of the company increased significantly compared to 20x8 and 20x7, because the fixed assets increased apparently but it also resulted the shortage of cash in 20x9. In the liability section, as follows as the increasing retained profit, in 20x9

shareholders equity (reserves) also climbed a lot. As far as we considered the financial ratios (Table1), from 20x7 to 20x9 the profitability ratios improved dramatically due to the less cost of sales and operating expense. The liquidity ratios become worse, because the growing fixed assets resulted in the lack of liquid asset.

The following part is going to compare financial performance with its major rival, Sun See Chemical Industry.

Table 1

The Lee Chew Wong Chemical Performance Ratios

	20x9	20x8	20x7	20x9 Industry averages
Gross profit to sales (%)	35.71	33.33	32.14	44
Operating profit to sales (%)	21.43	13.33	14.46	30
Return on capital employed (%)	18.75	15.09	19.19	25
Earning per share (\$)	1.02	0.408	0.668	
Current ratio	4.7	6.69	6.65	1.25
Acid test	2.83	4.125	2.96	0.89

Average debtors (days)	68.65	64.63	76.91	56
Average creditors (days)	37.85	25.66	27.85	48
Stock turnover (times)	7.5	7.79	7.73	14
Gearing (%)	15.56	15	15.38	40
Interest over (times)	12.86	11.43	14.46	12

Firstly, the company's profitability ratios are lower than Sun's and also lower than average industry especially the return on capital employed ratio. Therefore, the Lee Chew Wong Chemical Company should consider how to improve the profitable ability, for example, strengthen the sales volumes, reduce the cost of sale and reduce the operating or the other expenses.

Next, the liquidity ratios of the company are much higher than Sun's and average industry. Maybe they can plan to use spare money to invest the other equity or debt securities. The more effective way we use or invest liquid assets, the more profit it will increase and more and more companies care about the investment and financial management, but the premise is that they should hedge risks successfully.

Finally, the average debtors collection period of this company is longer than Sun's in three years. The company should try to shorten the collection period from the customers to improve the efficiency ratio. The gearing ratio is lower than Sun and

average industry. If the company wants to establish the new plant or buy equipments, the borrowing is a feasible way because of less financial burden.

Dispose of unwanted fixed assets

Return on capital invested (ROCE) is a mirror of capital employed productivity, return and usage efficiency.

$$\text{ROCE} = \text{OP/TA} = (\text{OP/S}) * (\text{S/TA})$$

It depends on operating profit and fixed assets volume. Its increase can be achieved either by increased operating profit or by fixed assets cutting. Or by both.

Efficiency of fixed assets of the LCCW is higher than within the industry; however, lower than of competitor and share of operating profit is lower than within industry and of competitor. When fixed assets would increase without growth of operating profit (or of its lower rate growth) as a result ROCE decreases (what we experience in LCCW).

If LCCW manages to decrease fixed assets by 200mln, then its turnover will increase till 0.913 and operating profit share must be 26.29%, that is 5% lower than the current

$$\text{ROCE} = 24\% = (\text{OP/S}) * (\text{S/TA}) = 26,29\% * 0,913$$

We can see that by reducing the capital employed. (ROCE) will increase. To improve capital employment, we can look at the volume of fixed assets, current assets and investments.

Through the off-balance-sheet analysis, we can see there are few methods to reduce the costs in our case:

- ✧ The company could conduct reorganization and sell some of the assets. Concentration on single site would reduce the expenditures on labour, equipment

and etc. These actions must lead to fixed assets downsizing – costs of one site expanding should be lower than income from closing another one. Costs of 1 unit production on expanded site must be lower after rationalisation.

- ✧ Location rationalisation provides operating expenses downsizing (insurance, keeping, maintenance, and depreciation), which, in its turn, will also increase operating profit share.
- ✧ Less stock holding and its quicker turnover would reduce the costs like security, insurance, lighting, heating, maintenance, and depreciation.
- ✧ The company also could reinvest the extra money to gain extra return.
- ✧ Instead of getting more shareholders, the company could think of getting long-term loan from the bank; there is about 6% interest rate on average and the rate of dividend is higher than that.

The last two methods have relative higher risks than others. In the system of costs and risks, secured borrowing, i.e. pledging assets as security for loans, overdrafts and debentures will command a lower rate of interest than unsecured borrowing.

(Chadwick, 2002, page 55)

Thus, if location rationalisation will decrease assumes fixed assets by 50mln (till 4750mln), reduce cost for \$1 of product from \$0.643 till \$0.6 due to transportation and storage savings, personnel redundancy and decreasing operating costs (till 389mln) than even with the present realisation level (4200mln) ROCE will be 27.41%.

Realisation Costs	2520mln (0.6*4200)
Gross Profit	1680mln (4200-2520)
Operating Costs	380mln
Operating Profit	1300 mln
Operating Profit share	30.95% (1300/4200/%)
Fixed assets turnover	0.884 (4200/4750)
ROCE	27.36% (30.95*0.884)

Proposed rationalisation

The methods of reducing costs could be disposing of asset the surplus to requirements. This would reduce depreciation, insurance, maintain security. Less expenditure then

net profit would increase. However, if demand highly increases, then company need to purchase new machinery and also might need to spend money on staff training.

Concentrate production on single site would increase the bargaining power over their suppliers and reduce the fixed costs and variable costs such as rental, communication, stock holding, transportation, etc; also better responds to suppliers and customers. Higher productivity would keep profits increasing. However, the company does not have production diversification; concentrate on single site then risks would be increase; such like government changes the trading policy or natural disaster, etc would seriously affect and damage the company.

Better understanding of the market and consumer needs would be benefit to the company. Highly management responds and flexibly with market changes would allow the company offer better deals than their competition and increase the product turnover due to less cost of stock holding. According cost intensity (R & D expenditure) to the company that it would reduce the net income in short term. Therefore, the CEO has to explain to their shareholders the negatively influence in short term but this would create a long term value and sustainable growth. Also, suitable price strategy needs to be considered. Obviously the company does not want to sell their products too cheap to increase their market share and might be end up with the price war.

Lower the costs of capital in terms allow the investors of company to get their money back quicker and keep investing, also enable to generate a satisfactory return for the investors.

Reduce cost of capital

“Cost of capital is defined as "the opportunity cost of all capital invested in an enterprise”. (<http://www.expectationsinvesting.com/tutorial8.shtml>) Including Common Stock, Preferred Stock Bonds (debt), and Retained Earnings - (profit the company makes, but does not give to the shareholders in the form of dividends). The companies have several ways to acquire the cost of capital, so they will measure the opportunity cost of all source of capitals which contain debt or equity. In the financial

point of view, companies try to acquire the lower cost of capital to develop the business and maximize the value of company, but they also should consider and evaluate the risks of cost of capital source. It is called the optimal capital structure (the lower Weighted Average Cost of Capital), which composes of the portfolio of the debt, preferred stock, common stock and so on. Generally, an increase of gearing ratio may decrease WACC and reduce the cost of capital, because interest on debt is tax deductible. However, higher gearing will result in higher risk of financial burden.

In our case, it is difficult to make a judgment without much information on the firm and economy. Hence, we should make some assumption.

20x9 the total capital =equity +debt= 4.5million=3.8million (equity)+0.7million

Assume:

KD: rate of return on debt=10 %

KE: rate of equity capital =ROE=12 %

Corporate tax=30 %

Expected annual cash flow=1million

Calculation :

The proportion of equity =3.8/4.5=84 %

The proportion of debt=0.7/4.5=16 %

The cost of capital : KD after tax=10 % (1-30%)=7 %

WACC= 84 %*12 %+16 %*7 %=11.2 %

The total value of firm = expected annual cash flow/WACC= 1/11.2 %=8.93m

If the company increases the proportion of debt from 16 % to 20 %, WACC is 11 % and the cost of capital reduces and the value of the firm maximize.

In addition, company repurchases stock from the market and it also will reduce the cost of capital, but it should notice the limitation number of repurchase stock according to the corporation law. In this case, it is hard to judge because it does not show the accurate share capital figure, but in 20x7 the shareholders equity is 3.3 million ponds and in 20x9 the shareholders equity is 3.8 million ponds, so from this data it presents that the safe maximum of repurchase stock is 0.5 million (3.8-3.3).

Also, disclosing more information to analysts in the public also reduces the cost of capital. For uninformed investors of holding the stock the risk will increase due to the private information because informed investors are better able to shift their portfolio weights to incorporate new information.

Write down the value of stock and fixed assets

If the company writes down the value of their stocks and certain fixed assets by significant amounts, the profits and the return on capital employed will be influenced significantly. First of all, the writing down of certain fixed assets can cause the increase of depreciation expense, so the profit can be reduced.

According to this formula:

Gross profit=Net sales – cost of sales / Net sales-(opening stock +purchasing-closing stock)

If the value of stocks is written down, the closing stock will decrease. So the cost of sales will increase with the decrease of the closing stock. Therefore, the gross profit can be reduced finally.

Moreover, in terms of the following formula:

ROCE = NPBIT / Total Asset (Current assets + Fixed assets)×100%

As we can see, because the value of their stocks and certain fixed assets are written down by significant amounts, both current assets and fixed assets can be reduced by the same amount. Hence, ROCE will increase with the decrease of total assets.

Issue the lower dividend

Share price are based on investors' assessment of the business future, and investors assess the return on their investment by investment ratios, including dividend payout ratio, dividend yield ratio, earning per share and price earnings ratio. The price earning ratio is the measure of market confidence of business in the future. Therefore, businesses have a higher share price relative to their recent historic earnings (high price earning ratio).

$$P/E = \text{Market value per share} / \text{Earning per share}$$

As higher P/E ration, the greater confidence in the future business it raises, so the more investors are willing to invest more money. However, some industries tend to pay out lower dividends, because their development of industry relies on the higher investment such as pharmaceutical business or they invest heavily in the future to some extent at the expense of current profit. In these situations, their share prices remain the same even though lower dividends are proposed, because their future is regarded as economically brighter. Higher price earning ratio also arise where business have recent low earning and low dividend. As a result, share price is not always direct positive relation with dividend.

In this case, Lee Chew Cheng Wong Chemical Company is a mature company, so the relation of dividend and share price could be positive.

$$EPS = \text{PAT} - \text{PD} / \text{NO. of Ord. Shares}$$

$$20 \times 9 \text{ EPS} = 1.02 = 510 - 110 / \text{NO. of Ord. Shares}$$

$$\text{Number of ordinary shares issued} \square 392$$

If Lee Chew Cheng Wong Chemical Company wants to pay a lower dividend

$$\text{Assume Dividend} = 60$$

$$20x9 \text{ EPS} = 510 - 60 / 392 = 1.14$$

Therefore, issuing the lower dividend leads the higher EPS.

In this formula, $P/E = \text{Market value per share} / \text{Earning per share}$

If the EPS ratio increases from 1.02 to 1.14, the P/E ratio will become smaller.

The smaller P/E ratio means the less confidence of business future, so the market price will drop.

As a result, if the company pays a lower dividend per share in the 20x10 year, it will impact the confidence of business future, so the P/E ratio will go down and the market price will reduce.

Introduce Activity Based costing

Activity-based costing is an approach to dealing with indirect costs that treats all costs as being caused or driven by activities. Although the cause and effect relationship is used in total absorption costing, the cost centre of ABC is not production or service department, but activities. Compared to absorbing costing approach, ABC provides a more common-sense approach for assigning overheads to products, services, jobs, distribution channels and so on. According to R.S.Kaplan, ABC could be better described as a resource consumption system. It is to predetermine indirect costs and divided into various categories (resource cost). Each categories allocated or apportioned by appropriate resource cost drivers, and it is founded on the belief that activities cause the costs and that the cost objects create the demand for those activities. ABC causes management to focus on what creates the demand for the resource and the redevelopment or elimination of excess resources. If the most overheads can be analysed and cost drivers identified, it is possible to gain much clear insights into the costs that are caused activity by activity. As a result, fairer and more accurate product costs can be allocated, and costs can be controlled more effectively. Overall, the ABC approach arises seven basic benefits of this company. Firstly, it makes possible to determine total production costs traced to output. Secondly, targeting areas needs the attention of management. Thirdly, it

encourages the consideration of alternative methods of production. Fourthly, it highlights the operational efficiency and inefficiency. In addition, it identifies the financial benchmarks for activity performance. Also, it generates more information to measure and reward performance and prioritizes activities for cost reductions. Finally, it provides a common managerial framework among support activities. (<http://www.dod.mil/comptroller/icenter/learn/abconcept.pdf>) However, quite a number of cost drivers cause time consuming and expensive to apply, so adopting the activity-based costing the cost drivers should be appropriate and effective. In this way, the Lee Chew Cheng chemical company can control cost effectively and provide a competitive price in the market.

Capital Expenditure Budget

Budgeting is allocating resources between different company departments – sales and distribution, production, purchasing, R&D, marketing, finance, administration (Chadwick L., 2002). Budgeting control is establishment of budgets, relating responsibilities to executives, and auditing results of activity in comparison to planned. Its decision model is search – strategic plan – screening – definition – evaluation (risk and uncertainty, inflation, taxation, hurdle rates, strategic fit; techniques – payback (profitability, constraint, uncertainty), accounting rate of return, net present value, internal rate of return) – transmission – authorization – monitoring – post audit – assumptions (Pike R.H., Wolfe M.B., 1988).

There are two kinds of budgets – cash and capital that forecast cash flow and expenditures. Cash budget aimed to light if cash is available in needed time, when will be shortage and surplus. It is producing budgeted balance sheet and cash flow by gathering opening balance, forecasted sales and purchases during each period and allocating them to expenses (Chadwick L., 2002).

Generally, capital budgeting is divided into long and short-range (Jones R.L., Trentin H.G., 1971), fixed – remains unchanged, and flexible – changes as activity requires (Chadwick L., 2002). Long-range depicts trends in capital and is made for 3-5 years. It is developed like: a) top management makes forecast of the industry and a firm; b) heads of divisions are after informed about forecast and are asked to outline their

needs of capital facilities; c) it is analysed by board, approved and continually revised (Istvan D.F., 1970).

Short-range capital budget matches the cost of expenditure proposals with the funds available (year or 2, quarter, week). Generally two types are used. Rationing – limited funds are divided among best proposals – a) financial officer determines amount of available funds; b) departments submit proposals; c) finance department matches them with amount available; d) apportioning total funds to various divisions.

Financing budget – borrowing or issuing new equity securities – a) divisions submit requests; b) financials analyse availability of funds and in case of lack – plan acquisition of necessary funds (Istvan D.F., 1970). Choice of items for inclusion in annual capital budget depends on degree of urgency and necessity, comparative advantage of different schemes (Court H.P., 1961).

However, capital expenditure budgeting requires control in dollar and time dimension. Firstly, company monitor actual figures and planned, secondly, in case of gap re-evaluate and find a reason, and finally have procedures to handle a gap. After the end of selected period it is advisable to conduct postaudit aimed to measure actual results (profitability or years to return capital invested), compare these results with predicted, take action regarding any differences between the two (Istvan D.F., 1970).

Thus, for our analysed company Lee Chew Cheng Wong because of reorganisation we suggest departments make a plan of capital usage, propose how to reduce capital expenditure after reorganisation and describe necessary increase to successfully reallocate resources, equipment and move production. That would require a short and long-range planning and control of efficiency procedure creation – budgeting.

Conclusion

Overall, the ratio analysis discussed the problems with the current financial activities. In view of this situation, the Chief Executive should in order to implement some actions to reduce the unnecessary expenditures, deal with the redundancy and invest in different areas which we have suggested above. Staff training and use e-

commence IT system such like online dealing business would cost money, but the company would be more efficiency and effectively, therefore that would save lots of time, communication costs and higher production in the long term. Furthermore, manager's decision is very important; both benefits and risks need to be considered; poor decision-making might land the company in a predicament. By improving the financial performance, the company would be able to add more value and be more successful in the future.

References:

Anton, H.R. and Firmin, P.A. (1996), *Contemporary Issues in Cost Accounting, A Discipline in Transition*,

Barfield, J.T., Raiborn, C.A. and Dalton, M.A. (1991), *Cost Accounting, Annotated Instructor's Edition, Traditions and Innovations*

Bull, R. J. (1980) *Accounting in Business*, Butterworth & Co Ltd.

Chadwick, L. (2002), *Essential Finance and Accounting for Managers*, London: Prentice Hall.

Court H.P. (1961). *Budgetary control*. Sweet & Maxwell, Limited. London.

Drury, C. (1998), *Costing, an Introduction*, 4th Edition

Dyson, J.R. (1997), *Accounting for Non-accounting Students*, Pitman Publishing.

Elliott, B. and Elliott, J. (2002) *Financial Accounting, Reporting and Analysis, International Edition*,

Istvan D.F. (1970). *Capital-Expenditure Decisions: how they are made in large corporations*. Indiana University.

Jones R.L., Trentin H.G. (1971). *Budgeting: Key to planning and control* . American Management Association, Inc.

Lewis, R. and Pendrill, D. (1996), *Advanced Financial Accounting*, 6th edition

Louderback, J.G., Maurice, L. and Hirsch, J.R. (1982), *Cost Accounting, Accumulation, Analysis, and Use, Wadsworth International Student Edition*

,
Pike, R. and Neale, B. (year), *Corporate Finance and Investment-Decision and Strategies*, 4th edition, Financial Times/Prentice Hall.

Pike R.H., Wolfe M.B. (1988). *Capital Budgeting for the 1990's* . A Review of investment trends in larger companies. The Chartered Institute of Management Accountants.

Wood's, F. (1993), *Business Accounting*, Pitman Publishing.

<http://teachmefinance.com/costofcapital.html>

<http://www.dod.mil/comptroller/icenter/learn/abconcept.pdf>

<http://www.expectationsinvesting.com/tutorial8.shtml>