Differentiation Strategy with a Product Life Cycle Focus strategy

PRACTICE ROUND 1

Decision Guidelines

You are free to pursue any strategy you wish, but you might try this during the Practice rounds at any time you can abandon the Product Lifecycle Differentiation strategy entirely.

R & D

1) *Traditional*– tweak positioning to reduce age. Leave reliability (MTBF) unchanged. Example: Increase *Traditional's* Size by 0.1. Traditional will eventually become a Low End product.
2) *Low End* – no changes. The customer wants an older product that trails the segment.
3) *High End* – improve positioning and reduce age. Leave reliability (MTBF) unchanged. Example: reduce *High End's* Size by 1.2, and increase Performance by 1.2.
4) *Performance* – begin migration towards Traditional segment. Leave reliability unchanged. Example: Reduce *Performance's* Size by 1.0, and reduce Performance by 0.3.
5) *Size* – begin migration to Traditional segment. Leave reliability unchanged. Example: Increase *Size's* Size by 0.3, and increase Performance by 1.0.

Make certain that the projects complete during this year before December 31st. Under the rules, a new project can only begin on January 1st. If these projects do not complete before the end of this year, we cannot begin follow-up projects next year.

MARKETING

1) *Traditional*– significantly increase promotion and sales budgets. Implement a modest price increase. Forecast sales as a modest improvement over last year, driven by an improved design and marketing expenditures. Example: price $28.50, promotion budget $1500, sales budget $1800, and sales forecast 1500.
2) *Low End* – increase price, increase promotion and sales budgets. Forecast flat unit sales growth. Example: $22.00, promotion budget $1500, sales $1800, and sales forecast 1600.
3) *High End* – increase price, increase promotion and sales budget. Forecast flat unit sales. Example: $39.50, promotion budget $1500, sales $1500, sales forecast 400.
4) *Performance* – increase price, increase promotion budget, but decrease sales budget. The sales budget drives distribution systems in the Performance Segment, and we are leaving the segment. Forecast flat unit sales. Example: $34.50, promotion budget $1500, sales budget $300, sales forecast 350.
5) *Size* – increase price, increase promotion budget, but decrease sales budget. Forecast flat unit sales. Example: $34.50, promotion budget $1500, sales $300, sales forecast 320.

NOTE: Sales forecasts are purposely conservative. They reflect a pessimistic point of view.

PRODUCTION

Production schedules should reflect a rule of thumb – plan for 6 weeks of inventory. That is, have enough inventory on hand to meet demand for 6 weeks beyond the sales forecast. This gives you a 12% inventory cushion. For example, suppose Marketing forecasts demand at 1000, and you have 100 units already on hand in the warehouse. You want 1000 x 112% = 1120 available for sale. Since you have 100 on hand, you would schedule 1020 for production.

Since your Marketing forecast was conservative, it is unlikely that you will sell less than your forecast, but there is a good chance that you will stock out. Capstone does not take backorders. If you cannot meet demand, sales go to competitors. Therefore, you want to plan for the upside as well as the downside. Your Proforma Balance Sheet will forecast about 6 weeks of inventory. You hope that your actual sales will fall between your sales forecast and your inventory levels.

1) For each product, schedule production using the formula:
(UnitSalesForecast X 112%) – InventoryOnHand.
2) Make no improvements to capacity or automation at this time.

FINANCE

Your fiscal policies should maintain adequate working capital reserves to avoid a liquidity crisis. Put another way, keep enough cash on hand to avoid Capstone'sloan shark, Big Al, if your

competitors clobber you, resulting in large unexpected inventories in your warehouse. Inventories are paid for when you build the product. Too much unexpected inventory leads to zero cash with bills still outstanding. At that moment, Big Al arrives with a smile, pays your bills, and leaves you with a loan and a stiff interest payment. (In the United States, this event is also known as Chapter 11 bankruptcy.)

Here are some guidelines to help you avoid Big Al. Your proforma Balance Sheet predicts your financial condition at the end of this year. Make conservative marketing forecasts. Do not rely upon the computer's forecast. Override it with a forecast of your own. If you are conservative, it is unlikely that your worst expectations will be exceeded. Next, build additional inventory beyond your pessimistic expectations. This forces your proforma Balance Sheet to predict a future where your conservative sales forecast comes true and you are left with inventory. (If you sell the inventory, that's wonderful.) Now look at the proforma Balance Sheet's Cash and Inventory accounts. Drive your Cash position until it roughly equals your Inventory position. That is, either issue stock or borrow bonds until Cash equals Inventory. This creates an additional reserve for those times when your worst expectations are exceeded and disaster strikes.

Working capital can be thought of as the money that you need to operate day-to-day. In Capstone™ it is equivalent to your Current Assets – Cash, Accounts Receivable, and Inventory. As you gain experience with managing your working capital, you will observe that the guidelines above make you somewhat liquid, and you may wish to tighten your policy by forecasting less cash and inventory. That is fine. The better your marketing forecasts, the less working capital you will require.

1) Pay a dividend between $0.50 and $1.00.

2) Do not issue Short Term Debt. If you are short of cash (unlikely) issue stock.

SAVE DECISIONS

PRACTICE ROUND 2

Decision Guidelines

R & D

1) *Traditional*– tweak positioning to reduce age. Reduce reliability (MTBF) to the middle of the Low End customer's expectations. Example: Increase *Traditional's* Size by 0.1. Traditional will soon become a Low End product, but it remains primarily Traditional for this year.

2) *Low End* – no changes. The customer wants an older product that trails the segment.

3) *High End* – improve positioning and reduce age. Leave reliability (MTBF) unchanged. Example: reduce *High End's* Size by 1.2, and increase Performance by 1.2.

4) *Performance* – continue migration towards Traditional segment. Target Performance for the leading point where the Performance and Traditional circles intersect. Reduce reliability to the bottom of the Performance customer's acceptable range. Example: Reduce *Performance's* Size by 1.0, and reduce MTBF by 2,000 hours.

5) *Size* – continue migration to Traditional segment. Target Size for the leading point where the Size and Traditional circles intersect. Reduce reliability to the bottom of the Size customer's acceptable range. Example: Increase *Size's* Performance by 1.0, and decrease MTBF by 2000 hours.

6) *New High End Product* – Launch a new *High End* product, with a project length of 20 to 23 months (no later than December of next year.) Example: Replace the 1st NA in the list, positioned at leading edge of *High End* segment, say Performance 12.0, Size 8.0. Middle of the acceptable *High End* reliability: MTBF 23,000.

Make certain that the projects for old products complete during this year before December 31st. Under the rules, a new project can only begin on January 1st. If these projects do not complete before the end of this year, we cannot begin follow-up projects next year.

MARKETING

1) *Traditional*–increase promotion and sales budgets. Hold price. Forecast sales as flat from last year. Example: price $28.50, promotion budget $2000, sales budget $2200, and sales forecast 1500.

2) *Low End* – hold price, increase promotion and sales budget. Forecast modest unit sales growth from last year. Example: $22.00, promotion budget $2000, sales budget $2200, and

sales forecast 1700.
3) *High End* – hold price, increase promotion and sales budget. Forecast flat unit sales. Example: $39.00, promotion budget $2000, sales $2000, sales forecast 450.
4) *Performance* – hold price, increase promotion budget, and hold sales budget steady. Forecast flat unit sales from last year. Example: $34.00, promotion budget $1800, sales budget $300, sales forecast 350.
5) *Size* – hold price, increase promotion budget, and hold sales budget steady. Forecast flat unit sales from last year. Example: $34.00, promotion budget $1800, sales $300, sales forecast 320.
NOTE: Sales forecasts are purposely conservative. They reflect a pessimistic point of view.

PRODUCTION

Continue to use the Production rule of thumb – plan for 6 weeks of inventory.
1) For each product, schedule production using the formula:
(UnitSalesForecast X 112%) – InventoryOnHand.
2) Make no improvements to capacity or automation at this time on existing products.
3) For your new product, buy 600 (thousand) units of capacity at an automation level of 4.0 for your new product.

FINANCE

1) Match your plant investment with a stock issue. If you cannot raise adequate capital to match the investment, issue bonds to cover the shortfall.
2) Look at the proforma balance sheet, and add together your Cash and Inventory accounts. Apply the following rule of thumb. Keep between 15% and 20% of your balance sheet assets in Cash plus Inventory. You do not care about the mix, but you do want to have adequate reserves to cover unexpected swings in inventory.
3) Adjust your cash position to meet the guideline from #2. If you are cash poor, issue additional stock or additional bonds. If you are cash rich, pay dividends.
4) Do not issue Short Term Debt.

SAVE DECISIONS

PRACTICE ROUND 3

Decision Guidelines

R & D

1) *Traditional*– do not change positioning age. Set reliability (MTBF) to the middle of the Low End customer's expectations. Traditional will now become a Low End product.
2) *Low End* – reposition Low End to the current leading edge of the Low End segment. This will take 1.5 to 2.0 years, and it will sacrifice both positioning and age. It is necessary, however, to keep Low End within the Low End segment in the long run. Example: Reduce Size by 2.0 units. Increase Performance by 2.0 units.
3) *High End* – improve positioning and reduce age. Leave reliability (MTBF) unchanged. Example: reduce *High End's* Size by 1.2, and increase Performance by 1.2.
4) *Performance* – Enter the Traditional segment. Reduce reliability to the middle of the Traditional customer's acceptable range. Example: Reduce *Performance's* Size by 0.5, and reduce MTBF by 5,000 hours.
5) *Size* – Enter the Traditional segment. Leave reliability (MTBF) in the middle of the Traditional customer's acceptable range. Example: Increase *Size's* Performance by 1.0 and increase size by 0.3.
7) *New High End Product* – No action is required this year because the product has not yet emerged from R&D.
Make certain that the projects for old products complete during this year before December 31st. Under the rules, a new project can only begin on January 1st. If these projects do not complete before the end of this year, we cannot begin follow-up projects next year.

MARKETING

1) *Traditional* – hold promotion and sales budgets. Drop price below $23.50, the top of the Low End price range. Forecast a jump in sales, as Traditional will draw sales from both the Low End and Traditional segments. Example: price $22.50, promotion budget $2000, sales