10   Forecasting

Forecasting requires a little math and a little logic. For example, does your forecast predict your product will acquire half a segment's sales when there are four or five products in the segment? Unless your product's positioning, age and MTBF are significantly superior to the other products and your price is at the low end of the range, it is not likely that you will acquire half the sales. Does your forecast predict you will take only one tenth of the sales when there are four or five products in the segment? Unless your product's positioning, age and MTBF are significantly inferior and your price is at the high end of the range or above, chances are you can sell more.

Forecasts are used by the proformas to calculate financial projections (see Chapter 6). If you enter a forecast that is unrealistically high, the proformas will take that forecast and project unrealistic revenue.

If you do not enter values in the Your Sales Forecast cells, the proformas will use the Computer Prediction to project financial results.

10.1 Basic Forecasting Method

Last year's sales can be a good starting point for this year's forecasts. For example, if the segment growth rate for the upcoming year is 9.2%, you can say, "All things being equal, we can expect to sell 9.2% more units this year than last year."

Assume next year's growth rate for Traditional is 9.2% and your Traditional product sold 1,100,000 units last year without stocking out (running out of inventory):

$$1,100,000 \times 0.092 = 101,200$$

Adding 101,200 to last year's sales of 1,100,000 units gives you a starting forecast for the upcoming year of 1,201,200 units.

The statistic boxes on the Segment Analysis reports (pages 5 - 9 of the Courier) publish last year's Industry Unit Demand and the Growth Rate for the upcoming year. Multiplying last year's demand by the Growth Rate then adding the result to last year's demand will determine this year's demand.

If your product stocked out, calculate what it could have sold by multiplying the segment demand by the potential sales percentage reported on page 10 of the Courier, the Market Share Report. Next, multiply that by the segment growth rate.

Is this number valid? It is highly unlikely that the market in the upcoming year will be identical to the previous year. Prices will adjust, revision projects will complete– the playing field will change. Still, this number can be a good beginning as you assess your product offer and speculate what your competitors will offer.

Keep in mind the possibility that your products sold because competitors who otherwise would have made sales under produced and stocked out. Page 10 of the Courier displays actual and potential sales as a percentage for each product. If your actual sales far exceeded your potential because your competitors under produced, you cannot count on them making the same mistake again.

Any new products about to come to market must have a plant. Plant purchases are reported on the Production Analysis (Courier, page 4).

10.2 Qualitative Assessment

Compare your product to others competing within the segment and decide whether it is better or worse than the competition. Start with the Courier Perceptual Map (page 11). It shows where products are currently placed. The Revision Dates at the bottom of the page reveal the timing of any future repositionings. Continue the comparison using the Courier's Segment Analysis pages. These report each product's:

- Age– does the product satisfy customer age demands?
- MTBF– is reliability near the top of the range?
- Price– will price trends continue or will new automation (displayed on page 4 of the Courier) facilitate a price reduction? (Remember, price ranges drop $0.50 per year.)
- Awareness and Accessibility– are these percentages leading, keeping pace with or falling behind other products?

All these elements contribute to the monthly customer survey.

10.2.1   December Customer Survey Score

Will your product be better or worse than average? As an estimate, look at the December customer survey score in the lower part of each Segment Analysis. The Customer survey drives demand each month. For example, if there are four products in December scoring 32, 28, 22 and 14 (for a total of 96), then the top product's December demand would be 32/96 or 33%.

Top Product in Segment's Score / Sum of All Scores =
32 / (32 +28 +22 + 14) = 32 / 96 = 33%

What monthly customer survey scores will your product have during the year? The score will change from month to month because the segments drift, your product ages and it might be revised. Each monthly score is driven by how well your product satisfies the segment buying criteria, plus its awareness and accessibility levels. If the TQM/Sustainability module is on, some initiatives could increase the score. (See "How Is the Customer Survey Score Calculated?" in

the Online Guide's FAQ|Reports section for more information on assessing your product.)

> Consider whether or not the top products in the segment can meet customer demand. On the Production Analysis, examine the top products' capacities. Can they manufacture sufficient units? If not, you could have an opportunity to exploit.

10.3 Forecasts, Proformas and the December 31 Cash Position

On the proforma income statement, sales revenue for each product is based on its price multiplied by the lesser of either:

- The Your Sales Forecast entry (or, if none is entered, the Computer Prediction); or
- The total number of units available for sale (that is, the Production Schedule added to Inventory).

When a forecast is less than the total number of units available for sale, the proforma income statement will display an inventory carrying cost. When a forecast is equal to or greater than the number of units available, which predicts every unit will be sold, the carrying cost will be zero.

> The simulation charges a 12% inventory carrying cost.

On the proforma balance sheet, under current assets, inventory reflects the dollar value of all unsold units. Cash reflects the amount left after all company payments are subtracted from the sum of:

- Total sales revenue reported on the proforma income statement; and
- Stock, current debt and long term debt entries in the Finance area.

The proforma balance sheet's cash position also displays as the Finance spreadsheet's December 31 Cash Position. Therefore, unrealistically high forecasts or prices will create cash predictions that are not likely to come true.

10.4 Worst Case/Best Case

If you wish, you can enter sales forecasts and production schedules that develop worst case/best case scenarios. Here is an example:

You generate a pessimistic forecast of 1,200,000 for your Traditional product, which predicts in the worst case monthly sales of 100,000 units. As a matter of policy, your management team might decide that manufacturing an additional three months' worth of inventory, or 300,000 units, is an acceptable risk when compared to the potential reward of making extra sales.

In the Marketing spreadsheet, enter the worst case forecast of 1,200 in the Your Sales Forecast cell. In the Production spreadsheet, enter the best case of 1,500 in the Production Schedule cell (if inventory remains from the previous year, be sure to subtract that from the 1,500). At the end of the year, in the worst case you will have sold 1,200,000 units and have 300,000 units in inventory. In the best case you will have sold 1,500,000 units and have zero inventory.

The spread between the positions will show up as inventory on your proforma balance sheet. Your proforma income statement will also reflect the worst case for sales. In the Finance area, if the December 31 Cash Position is negative, adjust current debt, long term debt and stock issue entries until the December 31 Cash Position becomes positive. This will help ensure against an emergency loan.

To see your best case, return to the Marketing spreadsheet and enter 1,500 in the Your Sales Forecast cell then review the December 31 Cash Position. The actual results should lie somewhere between the worst and best cases.

> Log into the Capstone Spreadsheet and select Marketing under the Decisions menu. The Computer Prediction assumes your competition has mediocre products and therefore is not reliable. The Your Sales Forecast column allows you to enter forecasts of your own.