“Victorious warriors win first and then go to war, while defeated warriors go to war first and then seek to win”.

Sun Tsu-“The Art of War”

REVENUE FORECASTING

In the last chapter we reviewed a process to enable you to keep a firm grip on your current quarter revenue, emphasizing that if you can’t manage the current quarter revenue to expectations, you won’t have a career in Sales Management.

The ability to forecast revenue over time isn’t quite as critical to your career as driving the current quarter, but it’s awfully close. If the Executive team doesn’t feel you have a handle on customer demand and market conditions, you won’t be long for the Sales Management lifestyle.

This chapter will focus on forecasting revenue beyond the current quarter, more specifically, forecasting for the time frame that aligns with the planning horizon for your company.

A reasonably accurate Revenue Forecast is crucial to a company’s survival. Many companies have been ruined because they put in substantial capacity as the market turned down, or they didn’t increase capacity and missed a market upturn.

Revenue Forecasts based on hope rather than facts can be devastating. Years ago, as a Sales Manager at National Semiconductor, I attended a management meeting where the Founder and CEO, Charlie Spork, informed us that we only had enough cash to run the company for eight more weeks. We had bled cash to this dangerous level as a result of sizing the company to revenue forecasts that showed growth that never materialized. Shortly thereafter we had a new CEO, Gil Amelio, and his first action was to size the company to realistic projections of revenue. This action literally saved the company.

Poor revenue projections regularly give executives an opportunity to polish up their resumes and get back to networking. There is no question that even though the revenue forecast process will often be driven out of Finance, you will be held accountable for the accuracy of the numbers.

Sun Tsu, in the quote above, is making this exact point in stressing planning and forecasting in the military world, stressing the importance of understanding the position of your enemy’s armies and resources. It’s the same in business. Accurate revenue forecasts drive winning plans while bad ones can even be dangerous.

This chapter will provide a brief overview of a forecast cycle and then discuss how to drive your team to build a longer-range forecast. I will also present some tips that will help you judge the numbers and run the review process within your team.

After presenting concepts around Revenue, the discussion will turn to forecasting Bookings. Not many companies do a Bookings Forecast, but it is a great crosscheck to the Revenue forecast. It also drives the team to develop an understanding of how the Customer order placement process works and it keeps the team focused on generating bookings.

Key Point: *The process to build the Revenue Plan is Mission Critical for your company. Even though you won't own this process, you will be responsible for its accuracy.*

FORECAST PARAMETERS

Make sure there is alignment across all functions around the assumptions and parameters used in building and reviewing forecasts. Some key issues to consider:

A) Every number in the forecast should represent the "most likely view" and should answer the question, "if you had to put $1000 of your own money on a number, what number would you pick"?

B) The corporate planning horizon should align with the revenue forecast, i.e., if the company does a rolling 24 month financial plan, the revenue forecast should provide a 24 month rolling view.

The same is true of frequency. If all of the planning numbers are revised monthly, the forecast should be done from the ground up monthly as well and timed so that the forecast feeds directly into the rest of the planning process.

Since conditions can change quickly, a quarterly revenue forecast is not frequent enough for Sales and Marketing to stay in control of the business. So, for those companies on a quarterly planning cycle, doing a "light" forecast inside Sales and Marketing (only updating substantial changes) will keep the Sales and Marketing team on top of their numbers.

C) To make sure you understand the business, you should forecast by line item, or by product family if the unit ASP's are very small.

D) I am a strong advocate of the sales team generating a view of "unconstrained demand" which is then judged by Marketing to create a Revenue Plan. Retaining both views captures the most information from the process. The judged Revenue Plan generated by Marketing becomes the key output of the forecast process and feeds directly into the corporate planning process. This also allows the CEO and CFO to understand, with good detail, how the forecast is constructed and what risk is contained within the forecast.

For our purposes, "unconstrained demand" represents revenue that can be generated assuming there are no technical or quality issues. It also assumes an unlimited supply of product from operations. Understanding this view defines the highest possible revenue number, where output is perfectly matched to demand.

E) Direction needs to be provided around which products should be forecasted. A reasonable rule in a technology business is to only forecast products that are in production or that have committed release dates from Marketing. Bear in mind that Marketing usually provides aggressive product introduction dates.

While we're discussing potential distortion in the numbers, there is natural pressure from Sales to lower the numbers to drive lower quotas and for Marketing to drive the numbers higher in the outer quarters to secure more resources. These biases need to be considered when you're judging forecasts.

F) Finally-- and this is very important--your organization must embrace the philosophy that using the forecast as a political tool will not be tolerated.

Key Point: *Marketing will want relatively high numbers in the forecast to increase investment dollars and Sales will want lower numbers to encourage lower quotas. Operations will have its' own view of forecasting, as will Finance. These biases are a natural part of life and need to be factored into your judgment of the numbers.*

Key Point: *Planning with bad numbers is a recipe for disaster, so make sure the forecast process is constructed to deal with the natural politics in your organization. Professional managers both understand and deal with these biases so that the forecast is effectively honest and usable.*

THE FORECAST CYCLE

The general template for the revenue forecast is straightforward, usually with columns for the quarters being forecasted from left to right and rows for individual products. The initial working file is organized by Customer, which makes it straightforward for sales to provide their input.

A sample forecast cycle is provided below:

1. Prior to publishing the working file, as the Sales Executive, you should set the tone for that forecast with the sales team by providing a view of overall market conditions. You should include your view of demand from your "customers customer", i.e., one level up the value chain as well as any customer specific issues or particular market segments that you believe are seeing strength or weakness.

   This is also a good place to set expectations about new product availability, changes to pricing policies or any other changes that could effect the forecast. Providing your baseline view is good practice, as the team will then judge their forecasts with an aligned view of the macro factors driving the forecast. The odds will be much better that the file that arrives for your final review will make sense and be consistent with your views.

2. After a working file has been published and each sales person has provided their inputs, Sales Management is allowed a limited time frame to review the numbers with their teams. Following this review the working files are returned to the Process Owner for consolidation according to schedule.

   To ensure there is alignment, the sales team should have a formal review meeting with the marketing team. A spirited challenge to the numbers will improve the quality of the view finalized by Sales and the Marketing team will be much better informed as they judge their Revenue Plan.

   The Sales Executive should also do a final review of the forecast which can be done in conjunction with the Marketing review or separately. After the final review the unconstrained view is "locked" and forwarded to Marketing to be judged against operational, market, and new product risks.

3. The judged numbers are consolidated by the Process Owner and distributed to Executive Management for final approval, which then becomes the official Revenue Plan for the company.

An example timeline is presented below in Figure 1 (in working days).

Day -8	Day -7	Day -4	Day -2	Day -1	Day 0
Discuss Trends	Data Set Distributed	Sales Approval	Marketing Approval	Executive Approval	Locked Forecast

Figure 1. Sample Timeline for a Forecast Cycle.

Key Point: *Keep the forecast cycle as short as possible. The tension in a tight cycle is positive to the process, the organization will spend less time creating the forecast and the organization will have a completed forecast earlier in the period. A process that is short, but repeated often, will respond better and faster to changing demand.*

FORECAST REVIEW MEETINGS

In Figure 1 above, three working days are provided for Sales to lock unconstrained demand, which is adequate for one level of sales management to review. This timeframe can be modified to match any additional levels of review needed.

Sales does own the unconstrained number and hence makes the final call, but with marketing actively participating in the build of unconstrained demand, both Sales and Marketing should come away well aligned on the overall possibilities for revenue. Therefore less time is needed for marketing to lock the revenue plan (as noted in Figure 1).

As a rule, there should be few disconnects between the sales and marketing teams on their view of the forecast in the first two quarters. If there are substantial disconnects, there is a problem with your process or the quality of the effort. Stated differently, the Sales team should have good visibility into the customer's view of their demand over the next quarter.

As the forecast moves beyond two quarters, there likely will be tension in the views of the Sales and Marketing teams. The Marketing team usually takes a more aggressive view of revenue rolling in from the introduction of new products than the Sales team.

Key Point: *Substantial disconnects between Sales and Marketing, particularly in the first two quarters points to a problem with the quality of the effort or a problem with the process.*

As the Sales Executive, you own the unconstrained demand number so you must make sure you're comfortable with what you approve.

JUDGING FORECASTS

As noted earlier, there are many ways to organize the forecast template for your review. Figure 2 below provides a simple example.

Week: 3

Customer	Product Family	Q -1 (Actuals)	Q 0 (FCST)	% Delta	% Firm	Q +1 (FCST)	Q+2 (FCST)	Q +3 (FCST)	Year Total
Cust A	Prod A SKU	2,000	2,400	20%	34%	2,600	2,400	2,600	10,000
Cust B	Prod A SKU	1,000	800	-20%	62%	900	1,100	1,300	4,100
Cust C	Prod A SKU	1,500	1,700	13%	75%	1,500	1,600	1,750	6,550
	Prod A Total	**4,500**	**4,900**	**9%**	**52%**	**5,000**	**5,300**	**5,650**	**20,850**
Cust A	Prod B SKU	4,000	3,400	-15%	27%	3,200	4,200	4,400	15,200
Cust B	Prod B SKU	1,000	1,100	10%	45%	1,300	1,400	1,350	5,150
Cust D	Prod B SKU	3,000	2,600	-13%	71%	2,800	3,600	3,700	12,700
	Prod B Total	**8,000**	**7,100**	**-11%**	**32%**	**7,300**	**9,200**	**9,450**	**33,050**
	All Prod Total	***12,500***	***12,000***	**-4%**	**27%**	***12,300***	***14,500***	***15,100***	***53,900***

Figure 2. Sample Revenue Forecast Template. Discussion purposes around judging numbers.

In this example, the column titled "Q-1 Actuals" provides the previous quarter actual revenues. Columns titled Q+1 FCST, Q+2 FCST and Q+3 FCST represent the succeeding three periods for comparison.

The column titled “% Delta” indicates the % change from Q-0 from Q-1. The column titled “% Firm” is a calculation of shipments to date for the current quarter plus backlog with current quarter ship dates indicating the percentage of the quarter that is in-house.

Comparing “% Firm” for the week you’re reviewing vs. “% Firm” for the same week in previous quarters is a good indicator of the risk in your current quarter forecast. For example, if a particular product family is historically 30% “Firm” at the same point of the quarter and the file you’re reviewing shows 40% “Firm”, the current quarter forecast could be conservative by up to 10%.

Key Point: *Comparing the “% Firm” for the comparable point in previous quarters is an excellent data point to judge risk in the current quarter forecast.*

You should also compare the changes in the forecast with your trends/market analysis prepared for the Sales team at the beginning of the cycle. Netting these trends against the working file may yield some disconnects that you can resolve in the review meeting.

When judging the forecast, you’ll come away with a more thoughtful analysis and be able to present more information to the other executives if you create a high, low and expected view of revenue.

To generate a high/low range, review the forecast for those few, high value line items that could swing the number in either direction. Adding all of the potential increases generates the high end of the range and the potential decreases the low end. The key here is to focus on the high value line items.

Key Point: *Generating a range (high and low) in addition to expected revenue is very helpful in providing color and assessing risk in a forecast. In addition, the spreadsheet can be constructed to check for logical errors (high bookings, but low forecast, etc.).*

COMMON MISTAKES

As mentioned earlier, there is a natural tendency, given the Revenue Plan is used for Corporate planning to color forecasts, to support the needs of the group generating the forecast.

I remember completing a forecast cycle during a very turbulent market period some years ago. That particular forecast was to be used as the baseline for our annual corporate plan.

I realized early on that the Group VP and I were rather far apart in our view of the forecast (he was higher than I was), which was unusual. Both of us believed our numbers but I’m sure the fact that this plan would be used to set quota’s for my team and to allocate resources to his team biased both our views.

As a result, this became a particularly difficult forecast to resolve, ultimately requiring a presentation to the CEO to break the tie. In the end we had a good forecast because we were both willing to defend our numbers then elevate when we couldn't agree.

An even more common example is to inflate the forecast beyond a reasonable expectation in the outer quarters to justify avoiding the bitter medicine that an honest forecast would dictate (recall my earlier experience at National Semiconductor).

Entire industries, particularly those that don't yet have well-defined business models (think early internet companies) or that don't have clearly understood growth drivers often have a tendency to overestimate long-range revenue forecasts.

Key Point: *Drive a culture that generates forecast numbers that represent the teams best and most honest view of the numbers.*

If you see a general drift up in the later quarters of your forecast your team should be able to explain the increase in terms of new products kicking in, expected share gains, or an improvement in market conditions (consistent with your trends analysis). If not, you're looking at unwarranted optimism and those increases should be taken out.

There is a human tendency to assume the future will be like the present. This encourages us to under-react to signals that the market is changing. The result is that teams tend to forecast markets that are on the way up too low and markets on their way down too high.

This is a difficult issue to avoid and calls for you and your team to thoughtfully discuss any meaningful changes in metrics such as booking and cancellation rates to increase your chances of correctly predicting the slope of the revenue line. Certain metrics tend to lead others in time, e.g., margin compression occurs before revenue falls, cancellations lead bookings which leads revenue. Look very critically at changes in leading indicators; they are often your only defense against some very big mistakes.

You also have to remain vigilant to root out plain old sloppy thinking. Publishing forecast accuracy highlights patterns where accuracy needs to be improved. At a corporate level many of the misses will net themselves out, so you need to publish accuracy on a fairly detailed level, so that individuals within the organization can learn and be held accountable.

FORECASTING BOOKINGS

I remember the look on the faces of my team the first time I rolled out a process to forecast Bookings. They thought it was the dumbest thing they had ever heard of. To them, forecasting Bookings seemed like a complete waste of time.

It is true that we did struggle with it for a month or two but we finally developed a workable process. As mentioned earlier, bookings are *THE* leading indicator of next quarter's revenue so it was important that we get control of these numbers.

Key Point: *A well thought through Bookings Forecast is your best crosscheck for the forecast of next quarter's revenue.*

Developing a Bookings forecast will also drive your team to understand your customer's order placement process. For example, does a customer's order management system generate an order using only demand, inventory and lead-time as variables, or are there other risk coefficients in the equation?

If a sales person has an understanding of how the customer's order process generates orders, a good grip on current booking run rates and combines that with a list of the few large value line items expected to book, they will have adequate information to generate their bookings forecast.

I've found that doing the Bookings Forecast at a relatively high level (specifically at the Customer level) rather than by line item is adequate given the objective of the process is simply to crosscheck the Revenue Forecast and improve understanding of the Customer's order placement process.

Lastly, it is important to review revenue weekly, but I've found that reviewing the Bookings Forecast every other week is adequate given that again, its primary purpose is to benchmark the revenue numbers. Figure 3 below presents an example Bookings Forecast template.

Week 3

Regions	Q -4 BK	Q -3 BK	Q -2 BK	Q -1 BK	Q 0 Rev FCST	Q +1 Rev FCST	Q 0 BK 2 Date	WK 2 BK	To Book	Q 0 BK FCST	FCST Delta
Region 1	$ 8,400	$ 8,600	$ 8,600	$ 8,700	$ 8,800	$ 9,400	$ 2,500	$ 500	$ 7,100	**$ 9,600**	$ 1,200
Region 2	$ 2,400	$ 2,700	$ 3,300	$ 3,400	$ 3,200	$ 3,600	$ 1,400	$ 800	$ 4,200	**$ 5,700**	$ (300)
Region 3	$ 5,400	$ 5,600	$ 5,300	$ 5,800	$ 5,900	$ 6,200	$ 3,100	$ 400	$ 3,200	**$ 6,400**	$ 200
Region 4	$ 3,700	$ 3,800	$ 3,600	$ 3,800	$ 3,700	$ 4,200	$ 1,500	$ 100	$ 1,400	**$ 3,000**	$ -
Region 5	$ 6,900	$ 7,200	$ 6,900	$ 6,700	$ 6,900	$ 7,300	$ 2,300	$ 700	$ 5,100	**$ 7,500**	$ (400)
Region 6	$ 1,900	$ 2,000	$ 2,000	$ 2,200	$ 2,100	$ 2,600	$ 800	$ 200	$ 1,500	**$ 2,400**	$ -
WW Total	***$ 29,000***	***$ 30,200***	***$ 30,000***	***$ 30,900***	***$ 30,900***	***$ 33,600***	***$ 12,100***	***$ 3,000***	***$ 22,700***	***$ 34,800***	***$ 800***

Figure 3. Example Bookings Forecast Template -- Summary Matrix.

Region 1	Q -1 BK	Q 0 Rev FCST	Q +1 Rev FCST	Q 0 BK 2 Date	WK 2 BK	To Book	M1 Booking	M2 Booking	M3 Booking	Q 0 BK FCST
Customer A	$ 2,200	$ 5,000	$ 5,600	$ 2,500	$ 500	$ 2,500	$ 1,000	$ 2,600	$ 1,400	$ 5,100
Customer B	$ -	$ 1,400	$ 1,500	$ 600	$ -	$ 1,300	$ 200	$ 700	$ 1,000	$ 1,900
Customer C	$ 200	$ 300	$ 600	$ -	$ -	$ 100	$ -	$ -	$ 100	$ 200
Customer D	$ 2,900	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Customer E	$ 3,200	$ 2,500	$ 2,100	$ -	$ -	$ 2,200	$ 200	$ 1,500	$ 500	$ 2,300
Reg 1 Total	***$ 8,600***	***$ 9,300***	***$ 10,000***	***$ 3,400***	***$ 500***	***$ 6,200***	***$ 1,600***	***$ 4,900***	***$ 3,100***	***$ 9,600***

Figure 4. Region-level detail of the Bookings Forecast Template (Rolls up to Figure 3).

Figure 3 has two sections. The top is a summary showing Region totals adding to a worldwide number. These numbers are calculated from the working numbers (by customer) in the lower section. Figure 3 shows the summary for one sales region (Region 1) summarized from the detail in the lower section (Figure 4).

The columns titled “M1 Booking”, “M2 Booking” and “M3 Booking” in the lower section (yellow) are the working cells where the sales team inserts their forecast for each month. These columns auto sum to the quarterly total (blue).

The columns to the left of the yellow columns provide the data required to judge the forecast. These include the previous quarters bookings (Q-1 Bk), the current and next quarter revenue targets (Q-0 and Q+1 Rev FCST), bookings so far in the quarter (Q 0 BK 2

Date), bookings for the previous week (WK 2 BK) and the delta between the total Bookings Forecast and Bookings to date (To Book).

The cycle to produce the forecast is straightforward as it is generated and reviewed by the Sales team. The Process Owner distributes the working file with updated actual bookings. The Sales team updates the forecast (yellow columns) and returns it to the Process Owner who consolidates and publishes.

JUDGING THE BOOKINGS FORECAST

I reviewed the Bookings Forecast during my staff meetings rather than generate another conference call. It was a good agenda item that generated useful discussion for the whole team. The staff meeting is also the right place to drive team members for additional bookings, particularly if their bookings rate is below forecast.

Key Point: *The Bookings Forecast is an excellent Staff Meeting agenda item.*

Reviewing the following points will prepare you for a discussion of the Bookings Forecast:

- Compare the Bookings Forecast (Q 0 BK FCST) with the next quarter Revenue Forecast (Q+1 Rev FCST). These numbers should be very similar given the rule that you should book this quarter what you ship next quarter (assuming no change in lead-times).

  Any meaningful delta between this quarter's bookings and next quarters revenue forecast should be explained in terms of changing lead-times, new product revenue expected next quarter that has not yet booked, or one-time events like a last-time buy of a discontinued product.

  If lead-times have extended, expect bookings to be larger than the next quarter revenue forecast. Obviously, the same is true in reverse, i.e., if lead-times contract, bookings will also contract.

- Compare the forecast with the current quarter revenue forecast to determine if the Book to Bill ratio (Bookings over Billings) is consistent with what you would expect for this customer given current market conditions. If their business is strong you should see a positive Book to Bill.

  Similarly, compare the forecast with the previous quarter's bookings to ensure the trend feels right.

- Lastly, compare last weeks bookings (WK 2 BK) with what has booked so far in the quarter (Q 0 BK 2 Date) to confirm that the remaining $'s to book (To Book) can be achieved from a run-rate perspective.

I’ve used terms like “looks ok” and “feels right” to emphasize that judging a Bookings Forecast is about making sure the assumptions underlying the numbers make sense and that the bookings rates are on track to target. A large part of getting this right is looking at the numbers from the different logical viewpoints I’ve suggested.

KEY POINT: *A useful review of the Booking Forecast looks at the relationship between Bookings, which are the leading indicator of Revenue from several different points of view e.g. bookings vs. next quarter revenue or bookings to date in the quarter vs. the forecast.*

SUMMARY

The ability to generate and hit forecasts for the current quarter and beyond is critical for any corporation and the survival of any Sales Executive.

The key to building an accurate forecast is to do the work so you “know the numbers”. This is accomplished by cross checking them with as many data points as possible. This chapter reviewed many such relevant data points including a Bookings Forecast, current backlog position and a careful review of a forecast’s slope to make sure the trend is justified.

Predicting future revenue is difficult, but it is definitely a skill that can be improved with effort using the concepts presented in this chapter.

This chapter and the last have discussed forecasting business for products that are already in production with customers. This is important for sure, but the lifeblood of any company is closing new business opportunities.

Adding a process to forecast and drive closure of new business to the processes from the previous chapters will position you to project the company’s revenue prospects as far as the product roadmap will take you. It is to that task that we now turn.

