

Sales Forecasting: Improving Cooperation Between the Demand People and the Supply People

TOM WALLACE AND BOB STAHL

PREVIEW

In this selection from their book *Sales Forecasting: A New Approach*, Tom Wallace and Bob Stahl identify some all-too-common beliefs (“gripes and myths”) that can impede cooperation and consensus building in an organization’s forecasting process. Here they prescribe some remedies for bettering the working relationships between demand folks and supply folks, thus enhancing the effectiveness of the forecasting process.

INTRODUCTION

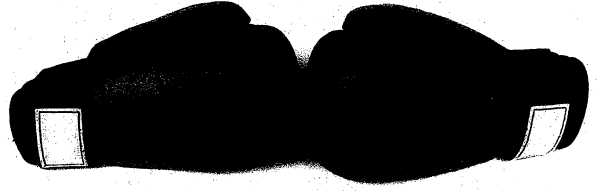
A number of years ago, at a public seminar about managing demand and supply, a Marketing VP introduced himself: “Hi. I’m Joe Smith, VP of Marketing with Ajax Widgets.”

The seminar leader said, “I’m not familiar with the widget business. Who’s your competition?”

The VP of Marketing said, “Operations!”

Of course, it’s a funny reply, but sadly it expresses the kind of situation that all too often defines the relationship between the demand and supply sides of a business.

Why are these relationships so adversarial? Why do these people hassle and complain about each other instead of devoting their time and mental energies to serving the customers? Well, there are a lot of reasons: functional silo organizations, misaligned performance measurements, left-brain vs. right-brain personalities,



unenlightened leadership that pits one group against another, and – oh, yes – not doing the forecasting job well. This includes lack of accountability, poor forecasting processes, and unclear objectives.

On top of all this, today there are two other very important factors that exacerbate the forecasting problems:

- Extensive broadening of demands from customers and users, contributing to end-item proliferation, and
- Longer and more variable lead times from outsourced manufacturing.

This article takes aim at some very common “gripes and myths” about the forecasting practice. By dispelling them, you should begin to see how to do the job of forecasting far differently than in the past. This can enable a “new approach” that will make things better on the forecasting front and hopefully create a mutually supportive – versus an adversarial – relationship between the demand folks (sales and marketing) and the supply folks (operations and purchasing).



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Tom has written twelve books, including

Sales & Operations Planning: The Executive’s Guide.



Bob Stahl has spent the last thirty-plus years as a practitioner and coach developing leading-edge processes for manufacturing, logistics, and supply-chain management. As an S&OP expert, he has worked with many of the world’s leading corporations. Bob has coauthored six books with Tom Wallace, including *Sales &*

Operations Planning – The How-To Handbook.

Let's get things started with . . .

#1 – You can't forecast this business.

Every company that makes and sells products is doing sales forecasting, either formally or by default. The challenge is to do it well . . . better than the competition.

You not only can forecast any business, you must for a number of reasons. If the sales and marketing people don't do it, people in purchasing, manufacturing, and finance will be forced to do it. This is because information about the future is vital for anticipating material and capacity needs required to satisfy customers, as well as projecting financial plans for which the company's leadership will be held accountable.

If forecasting is being done by default in purchasing, manufacturing, and finance, there are a number of problems:

- There are likely to be many forecasts that don't agree.
- People will be working to different plans, causing lack of teamwork.
- People who are not close to the marketplace are doing forecasting.
- Confusion, mistrust, and crisis will almost certainly ensue.

That brings us to the question, **what** must be forecast? The answer is two things – *volume* and *mix*. Volume is the big picture, focusing broadly on the market direction from which aggregate and strategic decisions can be seen and made. Mix is the customer-centric picture with much detail. A couple of definitions:

Volume Forecast: A forecast for groups of product that are similar in the way customers and/or markets view their use. These volume forecasts are used for rough-cut capacity planning at the plants and at suppliers, and

KEY POINTS

There are some very common gripes and myths about forecasting practice. By dispelling them, you'll see how to do the forecasting job better and perhaps far differently than you have in the past.

Gripes/Myths –

#1: You can't forecast this business.

#2: Forecasting is not in my job description; my job is to sell product.

#3: It's impossible to make any sense out of this forecasting stuff.

#4: An accurate forecast would solve all our problems.

#5: We need more detail in our forecast.

#6: Forecasting is a waste of time around here; nobody ever reads the forecasts.

#7: We know the forecast is going to be wrong, so why bother forecasting?

#8: In Operations, we're victims of Marketing's lousy forecasts. And there's nothing we can do.

for financial projections and analysis 18 to 24 months into the future. Rough-cut planning is done by using simplifying ratios about mix (the detail). These volume forecasts are grounded in extrinsic as well as intrinsic data and provide leading indicators of what's to come in the aggregate or big picture. They do not have full granular detail.

Mix Forecast: A forecast by individual product that is frequently customer driven. Sometimes called the detailed forecast, it is used for short-term scheduling of plants and suppliers and may also be required for certain unique long-lead-time purchased items.

These two forecasts are separate and distinct, involving very different procedures or practices. They must, however, be reconciled or integrated in the short term.

One has a total-market focus (volume) and the other has a customer-specific focus (mix).

The next question is: **Who** should forecast?

#2 Forecasting's not in my job description: my job is to sell product.

One of our favorite statements is that nothing can happen until you sell something, but nothing does happen until you

ship it. This statement gets at the fact that there are two parts of being successful in business – selling something and then planning and shipping it. Selling it without shipping it on time is not the goal. In order to do both parts successfully, the boundary between sales/marketing and operations must be blurred with regard to the forecasting practice.

The reason so many sales and marketing people are reluctant to assume responsibility for forecasting is that they're being asked – by operations, purchasing, and finance – to do something that they can't do and that makes no sense: they are being asked to forecast by end item for the full planning horizon. Think about the typical annual budgeting practice for many companies. With today's product proliferation and extended lead times, this method makes less sense than ever. The good news, alluded to in the last section, is you don't have to do it that way any more. There is a "new approach." Stay tuned; we'll get to **how** shortly.

When done properly, sales/marketing people will own the sales forecast (volume and mix); they are the ones who know the markets and customers best. We believe that this accountability is part of what makes a company's forecasting process work well.

Right now, some of you sales/marketing folks might be thinking: "Okay, I guess forecasting is necessary, and I can't argue with the idea that it's our job. But how are

we going to do a good job of it when everybody agrees that the forecast won't be accurate?" We haven't talked, and will not talk, about an "accurate" forecast.

Keep reading.

#3 – It's impossible to make any sense out of this forecasting stuff.

Before we talk about *accuracy*, let's talk about *process*. We've learned from Total Quality Management (TQM) that processes can

be improved and that's almost always a good thing to do. The reason: *better processes yield better results*. And, we hasten to add, better forecasting processes yield better forecasts, a point emphasized by Stephan Kolassa in his paper on benchmarking in Issue 11 of *Foresight* (pp. 6-14).

As with all processes, forecasting has inputs, a conversion phase, and an output. The inputs to the forecasting process are:

<u>Extrinsic Inputs</u>	<u>Intrinsic Inputs</u>
Current customers	New products
New customers	Pricing
Competition	Promotions
Economic outlook	Bids
Other	Management Directives
	Intra-company demand
	History
	Miscellaneous

From these inputs, a company must craft a well-defined and disciplined process to project a volume forecast in families that is reasoned and reasonable. Specifically, this process defines:

- Who will do what by when;
- What the data inputs are; and
- What the data outputs will be.

Being reasoned and reasonable means that it makes sense based on past history, the current situation, and the changes expected in the future. As this aggregated volume forecast moves toward the *Planning Time Fence* (the point where actual scheduling takes place and specific detail is needed), the volume forecast needs to be converted to a detailed forecast. In other words, the mix forecast comes from the volume forecast – not the other way around.

Now it's time to talk about *forecast accuracy*.

#4 - If we could just get an accurate forecast, it would solve all our problems.

There's no question that better accuracy in our forecasts is a desirable goal, but the way to get there is not by harping about forecast

accuracy as an arbitrary measurement. It's a turnoff to the people who have to do the forecasting. Our position is this: the best way to increase forecast accuracy is to work on the process, focusing on reducing variability in the traditional Total Quality Management (TQM) sense. This may sound like semantics, but it's really not – it's a behavioral issue.

We've learned that processes have inherent variation, and because forecasting is a process there will be some variability. This means that some degree of forecast error is inevitable. There are companies that disregard this factor and push their sales/marketing people to make forecasts with a predetermined level of accuracy. We've seen this approach result in counterproductive behavior. Examples range from people switching off (refusing to forecast because it's a no-win deal and they're tired of getting beaten up) to forecasting too frequently (updating the forecast every few days based on the last few days' orders). Quality guru W. Edwards Deming referred to this as "tampering" – being given incentive to do the wrong thing and thus doing it. Neither of these kinds of behavior is helpful.

As you might guess at this point, we highly recommend the use of the tools from the TQM tool chest. They include run charts, control charts, Pareto charts, cause-and-effect analysis, and other tools to help manage the forecasting process. One last word on accuracy: a biased forecast is one that is consistently over or under. A biased forecast is almost always caused by factors outside the forecasting process. It frequently revolves around how people are evaluated and/or compensated. Biased forecasts are the worst kind of forecast error; strive for zero bias.

#5 - We need more detail in our forecast.

Remember the days when all companies conducted an annual business-planning chore of forecasting the future in highly granular detail: by SKU (end-item), by customer, and by location? It tied everybody up for a month or two. Remember what we used to do with this forecast? We carefully calculated, with a great perception of precision, the material, capacity, and financial consequences for the next year.

As time marched on, what did the operations, purchasing, and financial people do with those projections? The typical answer – very little. They either second guessed these forecasts or ignored them. The reason? Even if they were initially accurate (and that's unlikely) they became less accurate over time, with no viable means to keep them current as things indeed changed.

If operations and/or finance continue to require the sales/marketing people to provide a fully detailed forecast over the entire planning horizon, it will drive this vital part of the team (sales/marketing) away from the table.

There is a principle here: if you forecast far into the future (a year or more), with a high degree of detail, accuracy will be at its worst! As we said earlier, there are two forecasts that are needed: volume (families) and mix (detail). The good news is that the detailed forecast is only needed for the *scheduling* horizon – for most companies this is less than six months, maybe less than three.

Without full detail beyond that, how do you make resource (capacity and suppliers) and financial projections for the balance of the horizon? The answer is by using simplifying ratios about the details of mix for the critical resources (inside and outside), and about financial projections. These ratios are determined by mining the detailed data of the past to find reliable simplifying ratios. Judgment about the future is then applied to make the projections reasoned and reasonable, driven by the family (volume) forecast. To ensure visibility and control over these simplifying ratios, you must maintain a classic TQM control chart showing the variability of the past and present, upper and lower control limits, and outliers.

If operations and/or finance continue to require the sales/marketing people to provide a fully detailed forecast over the entire planning horizon, it will drive this vital part of the team (sales/marketing) away from the table. This is because you'd be asking for something that cannot be done with any degree of reliability and update. Fortunately this practice is no longer necessary with today's best practices.

#6 – Forecasting is a waste of time around here. Nobody ever reads the forecasts.

To better deal with this gripe/myth, let's examine the total use of forecasting for a typical business. The table below describes the

varied uses for the forecast:

So the forecast feeds the planning functions for finance, sales-force staffing and activities, production capacity, supplier capacity and commitment, and is often a direct input into the master schedule.

If each of these departments has different forecasts for each of these different reasons, you can be sure they will never agree. This begs the question – how do you develop a single forecasting process that pulls all of this together so that you have one forecast with many views? Not to have one forecast with many views will surely result in a forecasting process that is collectively a waste of time.

The answer lies with leadership – that is, top management's willingness to lead an effective Executive S&OP process. If a company is unable or unwilling to put together a highly defined and disciplined Executive S&OP process, it is unlikely that the rest of the necessary activities will be done or tied together into a "one-number" system.

What is an effective Executive S&OP process? It is a set of monthly steps that updates the Annual Business Plan as things change. It culminates in a hands-on top

<u>Use</u>	<u>Unit of Measure</u>	<u>Forecast Horizon</u>
Financial planning	Dollars	Current & future fiscal years
Sales planning	Units/dollars	Weeks, months, quarters
Capacity planning	Units/hours	Months, quarters, years
Advanced procurement	Units	Weeks, months, quarters
Master scheduling	Units	Weeks, months

management meeting that makes decisions by:

- Balancing demand and supply at the volume level in both units and dollars.
- Tying operational plans to financial plans: one set of numbers.
- Reconciling volume and mix inside the Planning Time Fence.
- Acting as the forum for setting (or resetting) relevant strategy, policy, and risk assessment.

A vice president/general manager of a major business unit at Procter & Gamble said, “Our entire business team – marketing, sales, product supply, finance, R&D – is working more effectively now that we’ve stopped defending different volume estimates all month. We can pull together with a single-number forecast that has everyone’s full support.” They no longer think, we might hasten to add, that forecasting is a waste of time.

#7 We know the forecast is going to be wrong, so why bother forecasting?

When we focus on observing variability as an alternative to harping on forecast accuracy, the whole issue takes on a new perspective.

When we think in terms of variability and its causes, not only does the forecasting process get better – as with any process – but we can separate the part of the forecast where high variability is unavoidable and come up with alternative solutions:

1. Buffer variability with
 - finished goods inventory
 - component inventory and finish to order (some call this “postponement”)
 - manufacturing flexibility
 - promised lead time
2. Make some products to order with full-planning lead time

When we take the focus off accuracy and understand the intrinsic variability of a forecast, it’s a different ball game. We stop blaming the marketing/sales force for lousy forecasts and start looking for ways to deal more effectively with intrinsic variability in intelligent ways. The forecasts will never be accurate across the board. Where they are not, we must look for alternatives.

One other point on the forecast being “wrong” – it’s why this process must be reviewed and updated on a monthly basis. Things are changing – the earlier we recognize that the forecast is wrong, the better off we will be. We never want to blame the marketing/sales people for changing the forecast. We do, however, want to understand the reason for the change. Each month the marketing/sales people will be smarter about the future, and we never want to make them apologize for that or, worse, punish them for it.

#8 In Operations, we’re victims of marketing’s lousy forecasts, and there’s nothing we can do.

A friend of ours once said, “The forecast should always be 100 percent accurate . . . if the lead time is zero.” This is of course true – and impossible. But it’s where operations folks can become participants instead of victims.

Companies can make great strides in their ability to service customers by applying three fundamental points to improve their forecasting processes:

1. Forecast less, not more.
2. Emphasize teamwork, not formulas.
3. Focus on process improvement, not forecast accuracy.

How do you forecast less? Operations folks provide two important parts to this objective. They can:

- Shorten lead times for the building of products where variability is high;
- Develop simplifying ratios so that rough-cut resource requirements and financial projections can be made from family forecasts, outside the Planning Time Fence.



Cooperative discussion about forecast variability begins, but does not end, with the planning part of the Executive S&OP planning process. Here is where policy, strategy, and risk issues are explored and decided upon. This in turn aligns human energy toward common actions to support common goals. Through controlled, cooperative discussion teamwork evolves – at both the executive and the doer levels. Putting the emphasis not on formulas but on teamwork across departmental boundaries is what brings about meaningful and useful forecasts.

Three fundamental points to improve the forecasting process:

- Forecast less, not more.
- Emphasize teamwork, not formulas.
- Focus on process improvement, not forecast accuracy.

CONCLUSION

We considered calling this article “Lean Forecasting.” If you think about it, that might properly describe what we’ve talked about: doing more with less by getting rid of non-value-adding activities.

We’d like to conclude by quoting an executive from a company who followed this approach and created a transformational change in the way the business was run. He focused on the “less is more” theme, saying that they gained:

- More clarity on the current business condition,
- Less crunching of massive amounts of ultimately useless data,
- More understanding of where they want the business to be,
- Less confusion about where the company is and where it is going,
- More agreement on how they will get the business to where they want it to be,
- Less confusion surrounding business initiatives
- More accountability for the results, and
- Less waste of human and financial resources.

Simpler and Better! Either one of these in today’s business environment would seem to be worth the effort. Getting both is even better, don’t you think?

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