

Your S&OP Process Is Running on Poor Demand Signal Quality. Here's How to

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AUG.24.26

Key Takeaways:

- A strong S&OP process can still fail if the demand signals feeding it are wrong. Forecast quality matters as much as process discipline.
- Better forecasts start with better inputs. Actual customer demand signals, demand segmentation and forecast bias tracking create a more reliable view of what customers will actually buy.
- Forecast errors don't stay in demand planning. They drive excess inventory, capacity misalignment, schedule changes and missed margin targets across the business.

A well-governed S&OP process with disciplined executive ownership and a closed loop to the budget can still fail — if the demand signals feeding it are wrong. Garbage in, garbage out isn't a cliché. It's the most common reason an S&OP process looks functional but produces decisions that miss.

The Process Is Running. The Demand Signals Are Broken.

One of the most frustrating patterns in S&OP is the company that does most things right — monthly cadence, cross-functional attendance, executive engagement, a real agenda — and still ends up with inventory in the wrong place, capacity committed to the wrong volume, and a budget that doesn't survive contact with Q2.

When we diagnose those situations, the failure is rarely in the process structure. It's in what's feeding the process. The demand signal — the forecast that anchors everything downstream — is built on the wrong inputs, owned by the wrong function, measured against the wrong metrics, or not measured at all.

You can't make good decisions from bad information. And in most manufacturing organizations, the demand signal quality is the most underinvested dimension of S&OP.

Where Most Manufacturers Actually Are

Forecast accuracy in manufacturing typically runs between 55% and 70% at the product family level — and can drop considerably lower at the SKU level where production and procurement decisions actually get made. Industry benchmarks in consumer packaged goods, average forecast error runs around 39% by volume. In food and beverage, the median error rate is approximately 25%. In general manufacturing, MAPE benchmarks commonly range from 20–40%.

Those numbers don't get better by running a tighter meeting. They get better by fixing what's going into the forecast.

In TBM's assessment framework, demand signal quality is evaluated across four dimensions:

- 1 How the forecast is built
- 2 What customer demand signals are being used
- 3 How demand is segmented
- 4 Whether forecast bias is tracked and corrected.

Most companies we assess score well on the first dimension and poorly on the other three. They have a forecasting process. It just isn't using the right data or asking the right questions.

Five Ways the Demand Signal Breaks Down

We see these same issues again and again in S&OP diagnostics.

1. THE FORECAST IS OWNED BY SALES — AND OPTIMIZED FOR SALES.

When the forecast is built and held by the commercial team, it reflects commercial intent: budgets to hit, deals in the pipeline, optimism about upside. It is not a neutral view of what customers actually pull. The result is a systematically inflated forecast that drives inventory builds and capacity commitments the business can't cover when demand comes in light. Forecast bias — the consistent tendency to over- or under-forecast in one direction — is the signature of this problem, and it rarely gets measured.

2. INTERNAL ORDERS REPLACE CUSTOMER DEMAND SIGNALS.

At Level 1–2 S&OP maturity, fewer than 50% of finished goods are replenished based on actual customer demand signals. The company is forecasting its own shipments to distribution rather than reading what customers are pulling from shelves or ordering from stock. The two can diverge significantly — especially around promotions, seasonality, and channel inventory builds — and the production plan never sees it coming.

3. EVERY SKU IS TREATED THE SAME.

A high-volume, stable runner and a low-volume, highly variable specialty item require fundamentally different forecasting approaches. Applying a single methodology across the product portfolio — usually simple smoothing or last-year-plus-a-percentage — means the stable products are adequately planned and the volatile ones generate constant firefighting.

Demand segmentation — classifying products by volume, variability, and velocity and applying appropriate planning logic to each — is a Level 3 capability that most companies haven't built.

4. **EVENT-DRIVEN DEMAND IS NEVER MODELED.**

Event-driven demand is never modeled. Promotions, new product launches, customer program ramp-ups, and seasonal peaks are the moments when the gap between forecast and reality is widest — and the operational consequences most expensive. The root cause is almost always a structural disconnect: marketing owns the promotional calendar, product development owns the launch plan, and neither has a formal handoff into the demand planning process. S&OP never sees the event until it's already creating a supply problem. Best-in-class organizations build that connection deliberately — marketing and new product development are active participants in the demand review, not downstream recipients of the supply plan.

5. **FORECAST ACCURACY IS NOT MEASURED, CLOSED-LOOPED, OR IMPROVING.**

Tracking error by product family and channel, then driving root cause analysis, is the most basic discipline of demand management. TBM targets 10% year-over-year improvement in forecast error. In most organizations, accuracy is not measured at the functional level. It gets reported top-line once a quarter and forgotten.

You can't make good decisions from bad information. And in most manufacturing organizations, the demand signal quality is the most underinvested dimension of S&OP.

What a High-Quality Demand Signal Actually Requires

Fixing demand signal quality is not primarily a technology problem. It's a process and governance problem. The companies TBM has helped move from Level 2 to Level 4 in demand management share a set of structural commitments that go well beyond better forecasting software.

1. **A STATISTICAL BASELINE IS THE STARTING POINT, NOT THE ENDPOINT.**

Statistical models generate the objective baseline from historical demand. Subjective inputs from sales, marketing, and commercial teams then adjust that baseline for events, market intelligence, and customer-specific intelligence that the history can't see. Most organizations isn't that they lack statistical models — it's that the models get overridden by opinion without discipline or accountability.

2. **CUSTOMER DEMAND SIGNALS ARE INTEGRATED, NOT INFERRED.**

Best-in-class companies pull POS data, consumption signals, and customer-provided forecasts directly into the demand planning process for key accounts. They're not forecasting their shipments to a distributor — they're reading what the distributor is selling to end customers. The signal is one step closer to real demand, which changes the inventory math fundamentally.

3. **DEMAND SEGMENTATION DRIVES PLANNING LOGIC.**

Volume, variability, and velocity are the three dimensions TBM uses to segment product portfolios. High-volume, low-variability runners get statistical forecasting with tight tolerance management. Low-volume, high-variability items get managed with appropriate safety stock and, often, make-to-order strategies.



4. FORECAST BIAS IS TRACKED AND OWNED.

Error tells you how wrong you are. Bias tells you which direction you're consistently wrong — and why. A sustained pattern of over-forecasting in a product family points to a commercial incentive problem. A sustained pattern of under-forecasting in a channel point to a data integration gap. Neither gets fixed until it gets measured and owned.

5. DEMAND SHAPING IS A LEGITIMATE TOOL.

Best-in-class S&OP doesn't just respond to demand — it actively shapes it. Pricing adjustments, promotional timing, customer incentives, and product allocation decisions can all be used to smooth demand variability and reduce the cost of the supply plan. Most organizations treat demand shaping as a commercial function that has nothing to do with S&OP. High-performing ones use S&OP as the forum where those levers get pulled.

CLIENT SPOTLIGHT

\$3 Billion Household Products Manufacturer

This manufacturer was carrying 13 weeks of inventory — over 500,000 units in the distribution network even at peak demand — because the demand signal going into S&OP was built on historical shipments to distribution, not on point-of-sale data from retail customers. Seasonal volatility was being absorbed through inventory builds rather than managed through demand-driven planning. TBM analyzed demand patterns across four data elements — POS data from major customers, historical inventory levels, shipment records, and production volumes — and rebuilt the planning logic around real customer pull.

RESULTS

- Inventory reduced 72%, from \$1.8M to \$500K on the relevant product lines.
- Turns improved from 3 to nearly 11 per year.
- Fill rate maintained at 99.3%.

Why This Is an S&OP Problem, Not Just a Forecasting Problem

Demand signal quality is often treated as a demand planning function issue — something the supply chain team works on in isolation. That framing is part of the problem.

The demand forecast is the single input that everything downstream in S&OP depends on. When it's wrong, every decision downstream — capacity commitment, inventory positioning, supplier plans, [budget alignment](#) — inherits that error. A 25% forecast error at the product family level doesn't stay in demand planning. It propagates through the entire planning system and shows up as expediting costs, schedule changes, excess inventory, and missed margin targets.

This is why TBM evaluates demand signal quality as a core dimension of [S&OP maturity](#), not as a separate workstream. The executive team that owns S&OP needs to own the quality of its inputs. That means making forecast accuracy a KPI that gets reviewed in the executive S&OP meeting — not just reported to the demand planning team — and connecting forecast error trends to the financial consequences they're driving.

The companies that make the most durable improvements in S&OP performance aren't the ones that run the best meetings. They're the ones that feed their process the best data. The meeting is only as good as what walks in the door.

Three Questions to Ask This Month

If you're not sure where your demand signal quality stands, start here:

- 1 **What is your forecast accuracy by product family — and is it improving?**
If you can't answer this question from last month's S&OP review, you're not measuring the right things.
- 2 **What percentage of your finished goods are replenished based on actual customer demand signals — POS data, consumption signals, or customer-provided forecasts — versus internal sales projections?**
The higher that number, the closer your S&OP is operating to real demand.
- 3 **Is your forecast consistently biased in one direction?**
Pull three months of error data by product family. A systematic over- or under-forecast pattern tells you something specific about your process — and it's fixable once you can see it.

Fix the Signal. Then Trust the Process.

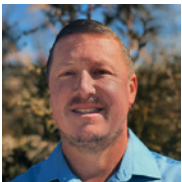
S&OP governance, executive ownership, and budget alignment are all necessary. None of them are sufficient if the demand signal feeding the process is systematically wrong.

The good news is that demand signal quality is diagnosable and improvable. It doesn't require new technology first — it requires an honest assessment of what's going into your forecast, who owns it, and whether it's getting better over time.

TBM's supply chain practice evaluates demand signal quality as part of every S&OP diagnostic — identifying where the signal breaks down, what it's costing in working capital and margin, and what a better process looks like in practice. If your S&OP process is running but your decisions still miss, the forecast inputs are the right place to look.

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Meet the Expert



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