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Do People Trust Your Demand Plan?

How Reducing Bias Improves Credibility and Financial Performance

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Imagine the **possibilities,**
realize the **potential.**

In a demand management process, a great deal of effort is spent each month assembling, gaining consensus to, and publishing a demand plan. Having a consensus plan that is agreed upon by the commercial side of the business is the foundation for an effective integrated business model.[1]

All too often, however, companies put in the effort to develop a consensus demand plan but don't realize the benefits. Why? It often comes down to an issue of trust. Senior leaders (like most people) make decisions and operate on that which they trust. If they don't trust the demand plan, they will most likely adjust, override, or ignore it.

How, then, should we measure the trustworthiness of a demand plan? Forecast accuracy is where many would start, but measuring bias is the more fundamental and important measure for creating more credible plans. Demand plan bias is defined as consistently selling more than planned or consistently selling less than planned. The bias measure, based on historical (demonstrated) performance, reveals whether plans are believable.

Every plan will have some degree of inaccuracy, but a believable plan should have no bias. Furthermore, a plan may prove to be highly accurate but still have bias and, as a result, will not be trusted. Consider the following examples depicted in Charts 1 and 2. In Chart 1, actual sales are always higher than planned. Chart 2 shows that actual sales are always lower than planned.

Chart 1

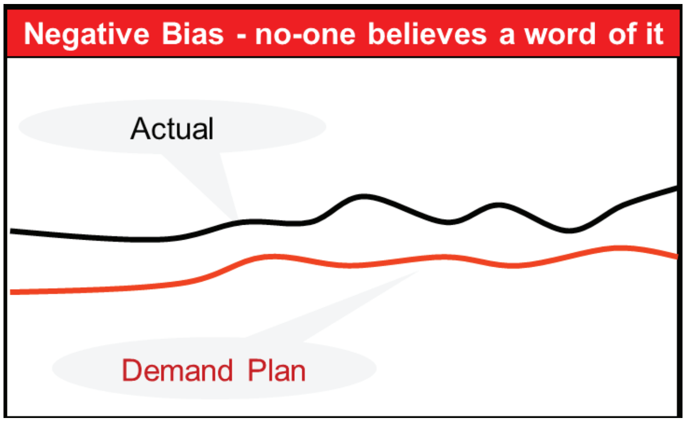
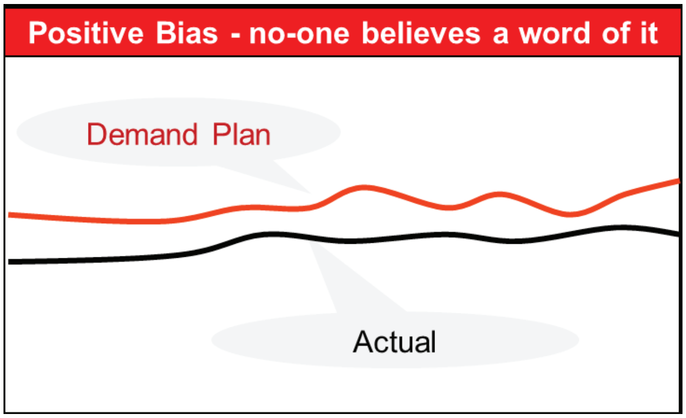


Chart 2



[1] *Colleen Crum and George Palmatier, Demand Management Best Practices: Process, Principles and Collaboration, pp. 213-228*

In both cases, forecast accuracy could be high – potentially even best in class. It wouldn't matter though. The recipients of these plans, representing supply, finance, and senior leadership, most likely would not believe the plans at face value.

When a demand plan has bias, recipients of the plan often succumb to the temptation to create a more accurate plan than what was initially provided. They simply adjust the plan according to the historical pattern of bias. Someone without any knowledge of the plan assumptions, market dynamics, or sales and marketing plans can create a more accurate plan by simply making a mathematical adjustment.

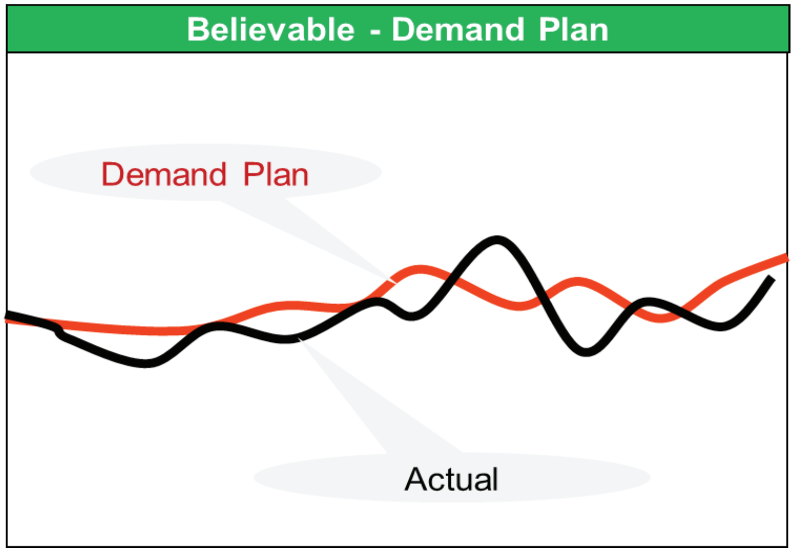
Arbitrary Adjustments Cause Harm

The tendency to adjust or override bias in a plan creates an underlying problem, however. Creating something better can actually create a worse situation. Adjusting the plan downstream creates a disconnect in the enterprise.

The users of the demand plan, including the supply and finance organizations, do not understand how the plan has been changed. All the effort to reach consensus on the plan has been systematically undone by downstream adjustments. It is no longer the sales and marketing organizations' plan, in their view. The plan is "owned" by whoever adjusted the plan.

By contrast, a plan without any bias will still have error, but those errors will be impossible to predict by downstream users simply on the basis of past performance. They will know that sales are as likely to exceed the plan or be less than planned (see Chart 3). Thus, there is no better option than to simply rely on the plan as it is.

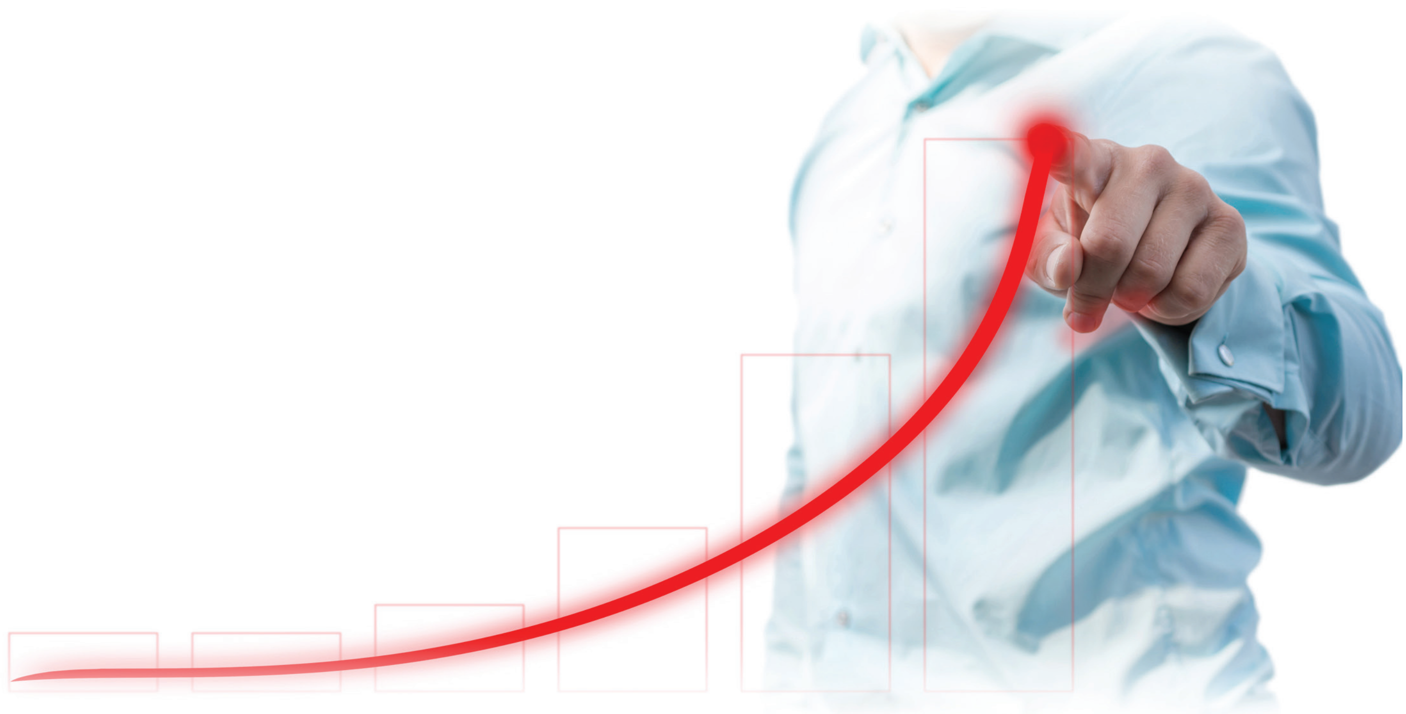
Chart 3



A word of caution: I have seen companies attempt to force the recipients of the demand plan to adhere to it in spite of obvious bias. While that may be possible within a commercial organization (although it is difficult), it is often a toothless edict for many downstream recipients outside of the organization. They often resort to subterfuge rather than adhere to an unbelievable plan. Downstream recipients will hide plans and adjustments, believing this behavior is secretly doing the company a favor by correcting for such obvious flaws in the plan.

Creating something better, in this case, also creates a worse situation and has the potential to turn into an extremely vicious cycle. At one company that had been experiencing tremendous growth, the sales organization was perpetually frustrated by the manufacturing organization's inability to keep up with sales of the company's products. The sales organization's solution? Pad the demand plan with additional volume. They believed that "overdriving," or communicating more demand than they expected to sell, would create a buffer in supply that would allow them to catch up on past-due orders and keep up with market growth.

Unfortunately, the consequences of intentionally creating a demand plan that would be undersold created other unexpected problems for the supply chain. While some aspects of the supply chain had bottlenecks, other areas were relatively unconstrained.



For those unconstrained areas, the bias in the demand plan was a real challenge. Simply following the plan would have resulted in significant inventory exposure, which some suppliers could not afford to carry. These suppliers made choices to constrain their production in a way that was not synchronized with the broader plan and other constraints. Many different people in the supply planning process were applying their own judgment to their piece of the plan, and those decisions created additional, unexpected bottlenecks. (See Unconstrained or Constrained?)

The result? Total manufacturing output that still didn't meet the demand plan, coupled with higher operating costs. Those suppliers with relatively unconstrained capacity were charging the company upwards of $50 million per quarter in capacity underutilization charges. The response from the sales organization? Pad the demand plan even more! Breaking this cycle required executive intervention, fundamental changes in process, and a wholesale reset of the plan.

The root cause of the situation was allowing bias in the demand plan in the first place. When this happens, it is like driving a car without your hands on the steering wheel. The demand plan is not a blank cheque. Not having a plan that everyone believes ultimately leads to a greater lack of predictability, disappointed customers, and poor financial performance.

Unconstrained or Constrained Demand?

People often ask how they should plan for unconstrained demand (which is best practice) in an environment where there are supply constraints. Part of the answer is to use the Integrated Business Planning process to identify, evaluate, and then make clear business decisions to either accept or resolve the constraint.

If the constraint is accepted, actions must then be taken to decide how to best allocate the limited supply to specific markets or customers. The decision on who will receive product should be led by the sales and marketing organizations. Their decisions should then be reflected in the demand plan. The result will be a constrained demand plan, but it will have become constrained after having been through a full review of the unconstrained demand and supply alternatives.

Taking this approach, there should be no excuse for bias on a constrained product line. As long as the manufacturing organization produces what they say they will produce, and the sales team sells what they say they will sell (which should be all of it), then bias will remain neutral.

How to Measure Bias

Several different metrics exist for measuring bias, but I would suggest keeping things simple. You do not need advanced analytics and statisticians to measure and eliminate bias. The drivers of bias are almost always behavioral. We, therefore, need a measurement that can be easily understood and acted upon by those individuals whose behavior needs to change in order to create trustworthy demand plans.

In my experience, a simple over/under measurement is easy to understand and is effective for driving focus and action. In the example below, we measure the total difference between the plan and actual sales for each brand by month. Negative numbers mean that the plan was less than actual sales. Positive numbers mean the plan was greater than actual sales. The snapshot for the plan is typically taken one or two months prior to the month of actual sales.

Focusing on a single month makes it is impossible to determine a positive or negative bias. By focusing over longer periods of time, the trend of the plan being over and under actual sales starts to emerge.

In this example, we see that sales of Brand A have been less than planned 6 out of 6 months (Chart 4). If I were looking at the plan for July, I would bet more than a dollar that sales of Brand A would again be less than planned. Conversely, sales for Brand E have been greater than planned for 6 out of 6 months. The same bet applies for Brand E, only in reverse.

Chart 4

Brand	Jan	Feb	Mar	Apr	May	Jun	Trend	Over/Under
Brand A	-2%	-5%	-19%	-3%	-24%	-10%		0 / 6
Brand B	-23%	10%	-22%	24%	24%	15%		4 / 2
Brand C	18%	-10%	25%	6%	24%	-19%		4 / 2
Brand D	-16%	4%	11%	6%	-18%	-7%		3 / 3
Brand E	21%	13%	5%	7%	4%	8%		6 / 0
Brand F	-17%	-23%	23%	-12%	11%	-16%		2 / 4
Brand G	-14%	16%	18%	-16%	-10%	15%		3 / 3

The logic presented above is essentially the same logic that recipients of the demand plan will use when deciding whether to believe it. Remember, the objective is to create a demand plan that can be trusted. If we use a measurement that is more complicated and gives a different answer than what users' judgment would conclude, then we are missing the point. A simple measurement with a clear implication will equip a Demand Manager to drive decisions in the company's Demand Review or consensus meeting that will drive out bias.[2]

How to Address Bias?

Bias can have a variety of sources, but they are almost always behavioral. Here are some typical behaviors that can result in bias:

- Not wanting to deliver disappointing or bad news.
- Confusing plans with targets and trying to artificially force the plan to equal the target.
- Attempts to manipulate reward systems.
- Human cognitive biases and over-reliance on judgment.
- Attempts to secure constrained supply by manipulating the demand plan.
- Misaligned performance measures and lack of accountability.

[2] *The Oliver Wight Class A Standard for Business Excellence, Seventh Edition, Oliver Wight International, John Wiley & Sons, Inc., pp. 51 and 88.*

The solutions to these bias-generating behaviors may involve addressing complex, structural issues within an organization. It may mean a leadership team has to commit themselves to not "shoot the messenger" and learn to accept visibility of the gaps between the latest demand plan and the annual budget. They should work toward taking concrete actions to close those gaps, rather than autocratically adjusting the plan to equal the annual budget.

In other cases, the solution to bias may involve leveraging the risks and opportunities that have been identified as part of the demand management process.[3] Use of risks and opportunities in this fashion may require adjusting the decision-making process for incorporating risks or opportunities into the plan as a means of compensating for an unconscious bias. When risks and opportunities are used in this way, more serious attention to the detail in determining whether demand is at risk or an opportunity exists is likely to result. This creates a more robust and truthful demand planning process.

[3] *Andy Walker and Debbie Bowen-Heaton, Uncertain Outlook: Managing the Sales Management Process with Vulnerabilities and Opportunities, www.oliverwight-americas.com*

A best practice is basing a demand plan on assumptions. The assumptions should be thoughtfully developed with sufficient detail to extract demand volume and timing. When assumptions are robust, bias can be linked to specific planning assumptions. In turn, root causes of the bias can be quickly identified. There may be weak or inadequate assumptions supporting a plan, or there may be one or two planning inputs that are driving bias, which is common with new products (see Bias and New Products).

Bias and New Products

It is not unusual to see bias in the planning of new products. A product manager is typically tasked with filling a pipeline to achieve a certain level of portfolio vitality. The product managers develop a new product with the intent of achieving the target volume needed to keep the portfolio vital.

As the development of the new product progresses, the business case stage in the stage/gate process is reached. Unsurprisingly, the product managers communicate a demand number that is exactly equal to the original target that was set at the start of the project.

In these situations, targets and plans are confused. Often the product manager has no accountability for the bias that is inherently in a plan where it is desired to make the strongest case possible for the new product. In the most challenging situations, product managers hand off these projects before they ever reach the market and are, as a result, absolved of accountability for the demand plan.[4]

One way to manage bias with new products is using best practice demand management techniques. This involves documenting assumptions with specificity and identifying risks about opportunities in the marketplace. When at least a 24-month planning horizon is used, the assumptions, risks, and opportunities should be reviewed and updated every month. When a company has an Integrated Business Planning process, consensus should be reached on the demand plan for new products through the New Product Review and Demand Review.[5]

[4] *Timm Reiher and Jerry Shanahan, Integrated Product Portfolio and Project Management, www.oliverwight-americas.com*
[5] *The Oliver Wight Class A Standard for Business Excellence, Seventh Edition, Oliver Wight International, John Wiley & Sons, Inc., pp. 66 and 72.*

By tracking and measuring the quality of planning inputs and assumptions, a demand manager can address bias at the source. In almost every case in addressing demand bias, it is critical to ensure that someone is accountable for managing bias. This means that the person assigned accountability is also properly empowered to influence decision making to eliminate bias from the plan.

When bias is eliminated or minimized, credibility of the plan – and people contributing to the plan – increases. The recipients of the plan will find the plan reliable and trust it. When the demand plan is trusted, the temptation to alter the demand plan is removed. Everyone can then focus their energies on executing their respective plans. Inevitably, operational and financial performance improves.

ABOUT THE AUTHOR

Greg Spira, a principal with Oliver Wight, has a concentration of experience in Demand Management and Integrated Business Planning (IBP). Greg works with companies to implement lasting change by building organizational capability and developing high-performing teams. Greg navigates all levels and functions in an organization to overcome roadblocks and achieve success.

At Mondelez International (one of the world's largest snack companies) Greg established and led the business forecasting team – architecting the vision, processes, tools, and attracting top talent. Leveraging the IBP process to align planning assumptions, leadership became accountable for coordinated execution of activities to achieve targets. Mondelez achieved a "one number" operating model with financial and operational plans tied to the monthly IBP process.

Prior to that, Greg was IBP Lead for Biscuits. Reporting to the North American Category President, he was responsible for the execution of IBP across the business unit to take decisions, close gaps, and achieve business targets. Mondelez successfully entrenched the IBP process within the business culture, with over 80% of participants confirming that the benefits from IBP significantly outweighed the time and effort invested.

At BlackBerry, Greg was Director, Demand Management where he led a global team responsible for device forecasting. They navigated a rapidly evolving environment with long lead times, short product life cycles, evolving business models, and intense competition. Greg established the rules of engagement between demand and supply, including time fences, consumption rules, and an abnormal demand process, clearly defining accountabilities for planning and execution. They eliminated chronic bias, driving down excess inventory by $300M and saving $50M per quarter in capacity underutilization expense.

Greg also held roles as a Controller and Information Technology Manager with a midsized retail fixture company.

Greg received his MBA and CPA, CMA from McMaster University where he has since been a sessional lecturer.

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