

PRACTICAL



TIPS

TO IMPROVE
DEMAND
PLANNING



LOGILITY

THE IMPORTANCE OF DEMAND PLANNING

Most executives agree that the ability to generate an accurate forecast has a significant impact on long-term business success. The forecast directly affects an organization's ability to satisfy customers, manage resources and grow the business cost effectively. An improvement in forecast accuracy—even just one percent—can have a ripple effect across the business including significantly reducing inventory buffers, obsolete products, expedited shipments, distribution center space, and non-value added work. In turn, these improvements can translate into higher customer fill rates, customer satisfaction and ultimately more revenue with higher margins.

A 1% Improvement in Forecast Accuracy Leads to...



Source: Consumer Goods (nonfood and beverage example) "Win the Business Case for Investment to Improve Forecast Accuracy," Gartner, May 2017

This e-book provides tips to leverage strong demand planning and optimization capabilities at your company.

7

TIPS TO IMPROVE

DEMAND PLANNING PRACTICES



If you have experience forecasting demand for products or services, you know that obtaining consistently good forecast accuracy is a mix of science and experience. Here are a few steps demand planners can take to improve the demand planning process and as a result, forecast accuracy:




TIP 1 Learn from your peers. There is abundant material available on how other companies have improved their demand planning capabilities. Use it!




TIP 2 Build the business case. To gain support for improving forecast capabilities, supply chain practitioners must show the relationship between forecast accuracy and shareholder value. Use the Dupont Equation on page 5 to articulate how an improvement in forecast accuracy impacts company performance.




TIP 3 Plan and manage talent. Creating a good sales forecast requires several skills: a strong understanding of statistics, in-depth product and customer knowledge, and experience in combining data to develop a forecast that all business functions can use. Companies need a well-defined strategy to acquire and retain planning talent.

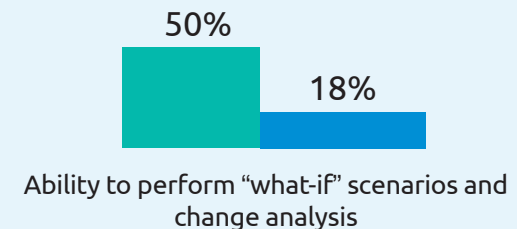
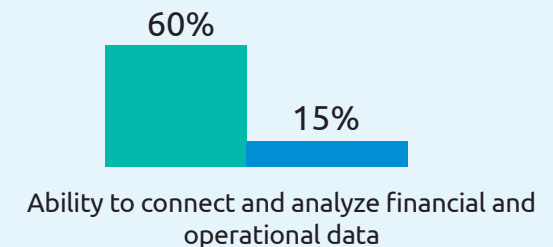
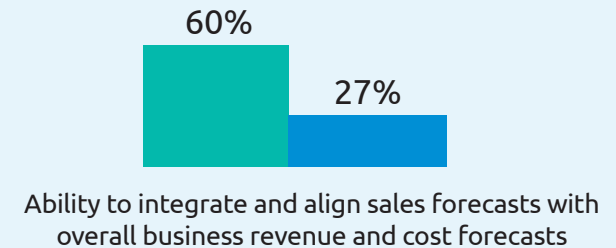
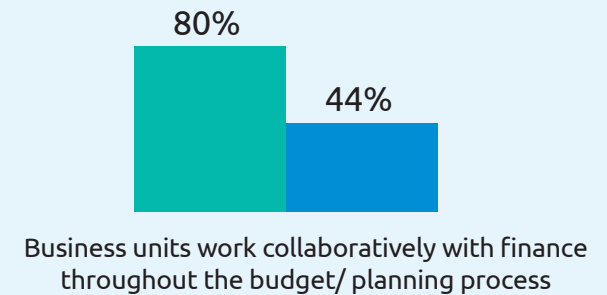
 **TIP 4 Engage analytics:** There are more than 700 key performance indicator (KPI) measures available that can simply overwhelm a planner. Combined with the quantity of both structured and unstructured data available from internal and external systems, planners need an engaging and intuitive analytics platform to surface the relevant information and provide guidance in any areas that require attention.

 **TIP 5 Identify an executive champion:** Without an executive champion and clear support from executive management, it's tough to achieve significant forecast accuracy improvements.

 **TIP 6 Eliminate spreadsheets:** Studies show that spreadsheets provide inadequate demand planning functionality and are riddled with errors. Get rid of them!

 **TIP 7 Use a mix of forecasting techniques:** A major ingredient in forecasting success is the ability to apply a series of forecasting techniques tuned to perform best at different phases of the product life cycle. See the next page for a convenient list of eight top forecasting methods.

Demand Planning Enables Smart Spending

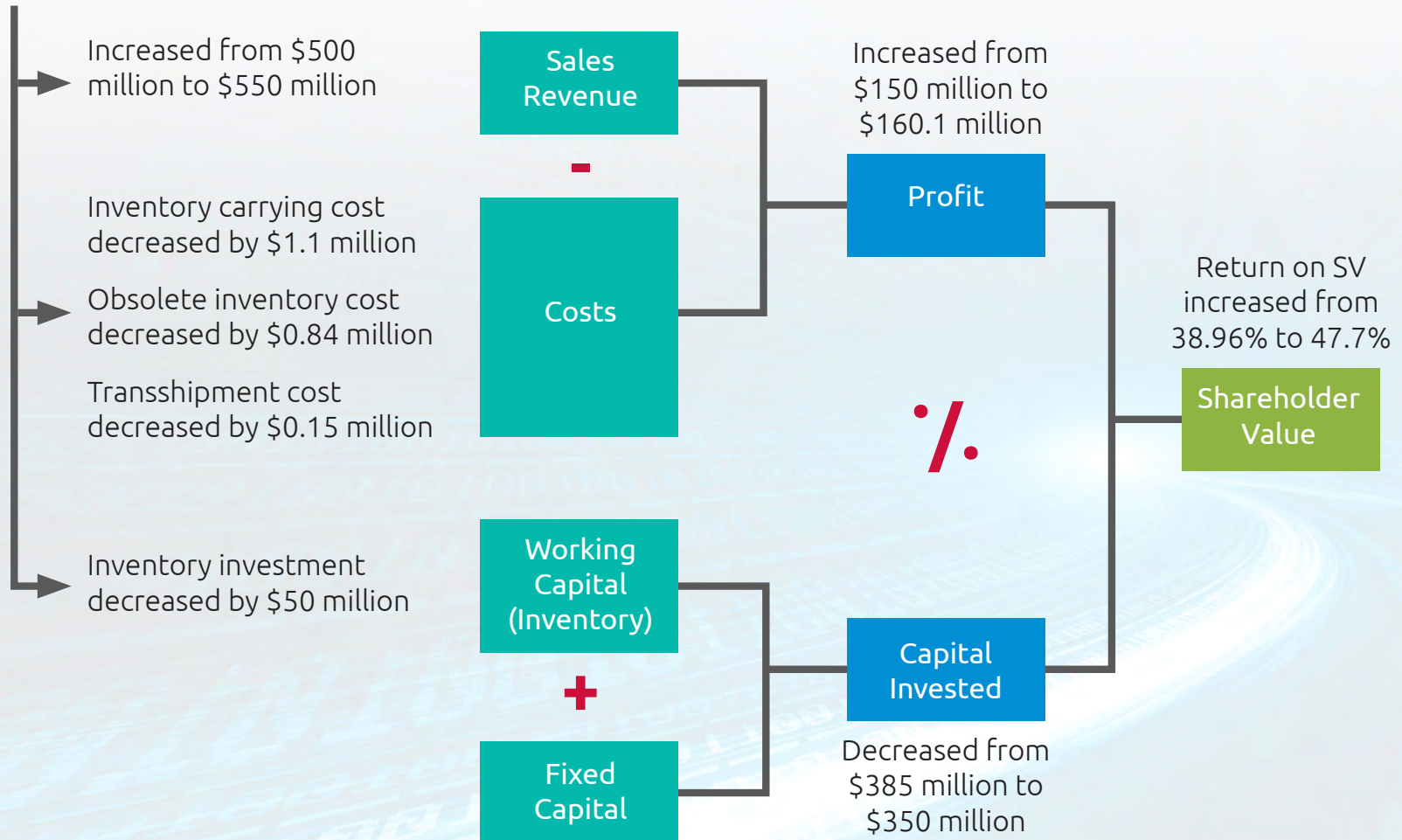


 Demand Planning  No Demand Planning

Source: Aberdeen Group, March 2016

THE DUPONT EQUATION:

10% INCREASE IN FORECAST ACCURACY



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TIPS TO CHOOSE THE RIGHT FORECASTING METHOD

A variety of forecasting methods are applicable to any particular type of supply chain scenario. Leading supply chain organizations employ multiple methods tuned to leverage available historical data and market knowledge of a product. The best tip is to pick the most effective and flexible models, blend their best features, and shift between them as needed to keep forecast accuracy at its peak. In Logility's experience working with more than 1,300 organizations ranging across dozens of industries, eight specific forecasting methods stand out. Their unique strengths combine to deliver powerful, flexible and accurate results.

1

Modified Holt

A best-fit statistical technique used when demand is trended, but does not vary by the time of the year. The Holt-Winters variant is used when demand exhibits seasonality.

2

Moving Average

Best for products whose demand histories have random variations, including no seasonality or trend, or fairly flat demand.

3

Inhibited

A derived model used to produce a zero forecast. This is often used when a product is being discontinued or when a different method, like Kanban or Stochastic efforts, is being used to plan inventory.

4

Modified Parent-Child

A derived model technique used to forecast products as a percent of the forecast for another product (dependent demand).

5

Modified Croston

An intermittent demand technique used for products such as slow-moving parts that have low demand or some zero demand periods.

6

Demand Profiles

An attribute-based technique used to model new product introductions and product end-of-life retirement.

7

Proportional Profiling

An attribute-based technique used to disaggregate higher-level forecasts into lower-level forecasts using user-defined attributes.

8

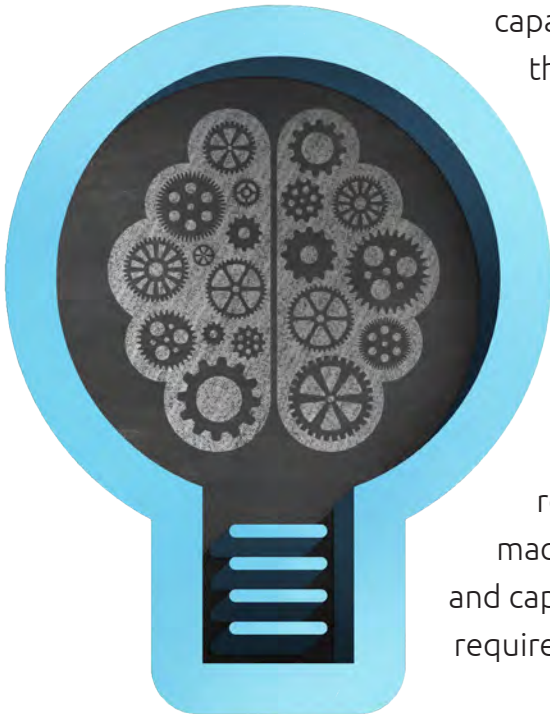
Causal Modeling

Used to calculate the additional demand or "lift" from promotions or events.

2

TIPS TO TAKE DEMAND PLANNING TO THE NEXT LEVEL WITH MACHINE LEARNING

The evolution to using artificial intelligence and self-learning algorithms to accelerate supply chain planning is inevitable. In fact, there are early examples of the potential of AI to improve both supply chain planner efficiencies and provide better or optimized supply chain decisions. The question is, are we, as a profession, ready to embrace Machine Learning? If so, what does that mean and how do we get there?



TIP 1 One way to get started with Machine Learning is to look at your Demand Planning capabilities. For example, a “Best-Fit” forecasting algorithm automatically switches to the most appropriate forecasting method based on the latest demand information, ensuring you create the best forecast for every product at every stage of its life cycle. The algorithm evaluates forecast error each forecasting cycle and recommends or automatically selects the forecasting method that will produce the best forecast. “Best-Fit” forecasting is a basic form of Machine Learning.

TIP 2 Another tip is to examine today’s Machine Learning capabilities found in software solutions that use algorithms to continually analyze the state of your supply chain and recommend or automatically execute plans to meet customer requirements. Optimization driven by algorithmic planning is an early form of machine learning that relies on a set of provided information (supply chain facilities and capacities, transportation lanes and capacities, customer service requirements, profit requirements, etc.) to automatically make optimal decisions.

1

CUSTOMER TIP FOR IMPROVED VISIBILITY

“Enhanced visibility provided through our Logility solution ensures we have the information and data we need to make quality strategic decisions.”

Michael Burke - Director, Supply Chain Planning, Continental Mills, Inc.



SUCCESS STORY: Continental Mills Finds a Recipe for Supply Chain Visibility

Continental Mills is a third generation, family-owned maker of breakfast, baking and snack brands. Its products are sold through retail, foodservice and club store channels throughout the United States.

Challenge

Gain supply chain visibility, improve resource efficiency, and evolve the sales and operations planning (S&OP) process.

Solution

Continental Mills deployed Logility Voyager Solutions™ and accelerated inventory turns, increased resource efficiency in the forecasting process, boosted forecast accuracy, and improved data accuracy and visibility throughout the business.

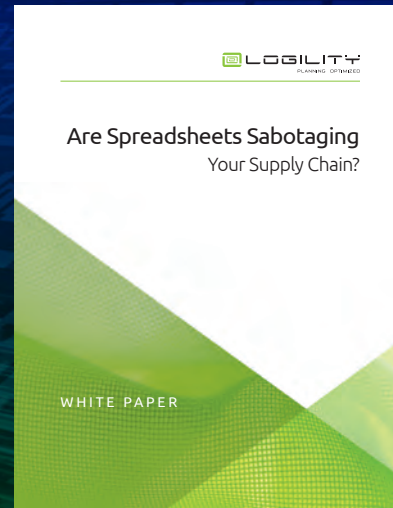
The Bottom Line

- Reduced inventory obsolescence from \$1M/year to almost nothing
- Improved inventory turns by 20%
- Increased resource efficiency in the forecasting process
- Reduced forecast error in one division by close to 50%
- Achieved a record service level of 99.48%
- Improved data accuracy and visibility throughout the business
- Can evaluate multiple scenarios to support dynamic business needs

ADDITIONAL RESOURCES



Beyond Basic Forecasting
White Paper



Are Spreadsheets
Sabotaging Your Supply
Chain White Paper



Eight Methods that
Improve Forecast
Accuracy White Paper

ABOUT LOGILITY

With more than 1,300 customers worldwide, Logility is a leading provider of collaborative supply chain optimization and advanced retail planning solutions that help small, medium, large, and Fortune 500 companies realize substantial bottom-line results in record time.

Logility Voyager Solutions is a complete supply chain management and retail optimization solution that features an advanced analytics architecture and provides supply chain visibility; demand, inventory and replenishment planning; sales and operations planning (S&OP); integrated business planning (IBP); supply and inventory optimization; manufacturing planning and scheduling; retail merchandise planning, assortment and allocation; and transportation planning and management.

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