KB

MAXIMIZE YOUR SUPPLY CHAIN EFFECTIVENESS WITH SUPERIOR MODELING, PLANNING AND ANALYTICS

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ABERDEEN

Supply chain leaders are under constant pressure to reduce costs and increase efficiency through improved forecasting and supply chain planning. The speed of business is constantly increasing, forcing companies to accelerate their processes at every step in their supply chain. The *status quo* is unacceptable. This report explores the planning, modeling and analytical capabilities / strategies that Best-in-Class companies have in place, compared to their competition, giving them a significant performance advantage.

Introduction

The primary business pressures facing supply chain leaders, in addition to cost, are demand volatility and customer mandates for faster, more accurate and unique fulfillment. Not long ago, customer expectations were two-day delivery; then next-day; and now the expectation is same-day delivery. Supply chain planners are struggling to keep pace with today's volatile market and are frustrated with using spreadsheets to consolidate scenario options and plans. In many cases, the fundamentals of planning are still structurally sequential and siloed processes. Having one synchronous model that incorporates these siloed functions is where companies need to be. Leveraging advanced planning and analytics solutions are now *must-have* capabilities to meet the market demands on today's supply chain operations.

Demand Planning: The First Step in the Process

A supply chain plan starts with a demand signal based on some type of forecast, projection or actual order. Even make-to-order companies have a sales funnel that translates into some form of demand expectation, driving material and capacity requirements. To get a better understanding of what's involved in the demand planning process, Figure 1 indicates the critical capabilities that set Best-in-Class companies apart from All Others.

To create a forecast, there are several roles within an organization that are likely to be involved, such as sales account managers, product managers, channel managers, demand planning functionaries, financial planners, and the forecasting process owner. Depending on the company, there may be

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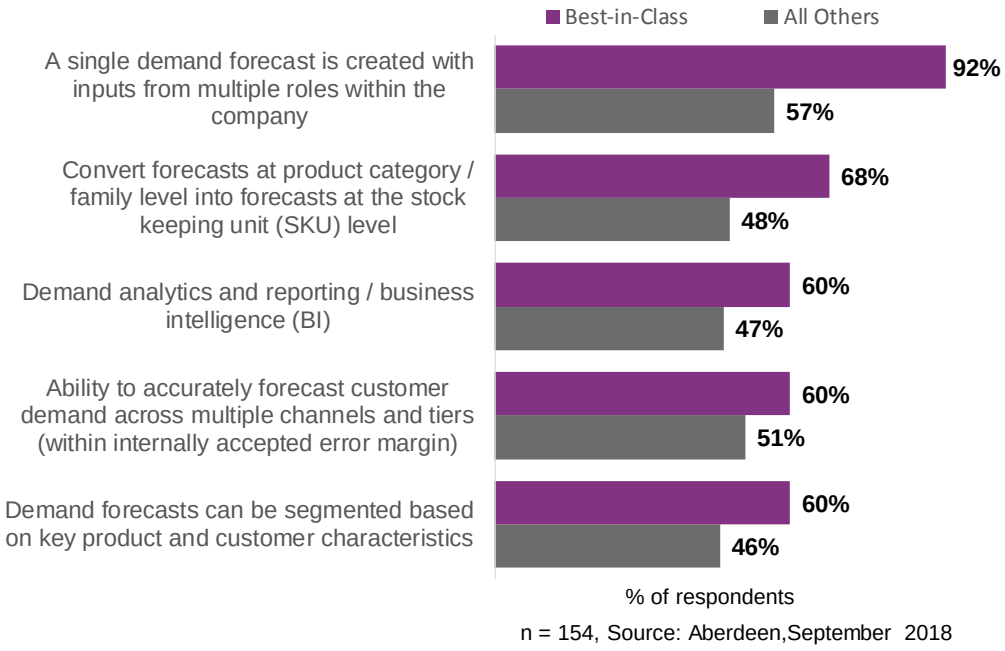
Best-in-Class Definition

Based on Performance Metrics

- **Best-in-Class — Top 20%**
- **Industry Average — Middle 50%**
- **Laggards — Bottom 30%**
- **All Others — The sum of the Industry Average and Laggards, equal to the Bottom 80%**

others, but the goal is to develop a consensus from multiple inputs and distill them into one forecast for a given SKU. Making this happen repeatedly and on time requires strong internal collaboration, plus a tight analytical, disciplined process. Best-in-Class companies are 35% more likely to have this in place than All Others.

Figure 1: Demand Planning Capabilities



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The analytical ability to roll forecasts up to an aggregate level and roll them down to a SKU level is essential for an accurate perspective and facilitates a much easier process to manage when working toward a *consensus forecast*. Anyone involved in planning realizes that forecast accuracy improves when planning at an aggregate level compared to an individual SKU level. The product family level forecast accuracy runs about 10%-15% higher than the SKU forecast accuracy over time.

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Tracking *actual* against *forecasted demand* is dependent on strong analytics. Best-in-Class forecast accuracy is commonly at 70%-85% at the family level and 60%-75% at the SKU level. The accuracy level for All Others is often below 50%, creating significant execution problems from the constant need to course-correct. Tracking and monitoring this on a routine basis provides good baseline information for comparative purposes and should be automatic with a strong analytics solution. Constant monitoring can detect when deviations occur, so questions can be asked in a timely manner, and course correction can be made if necessary.

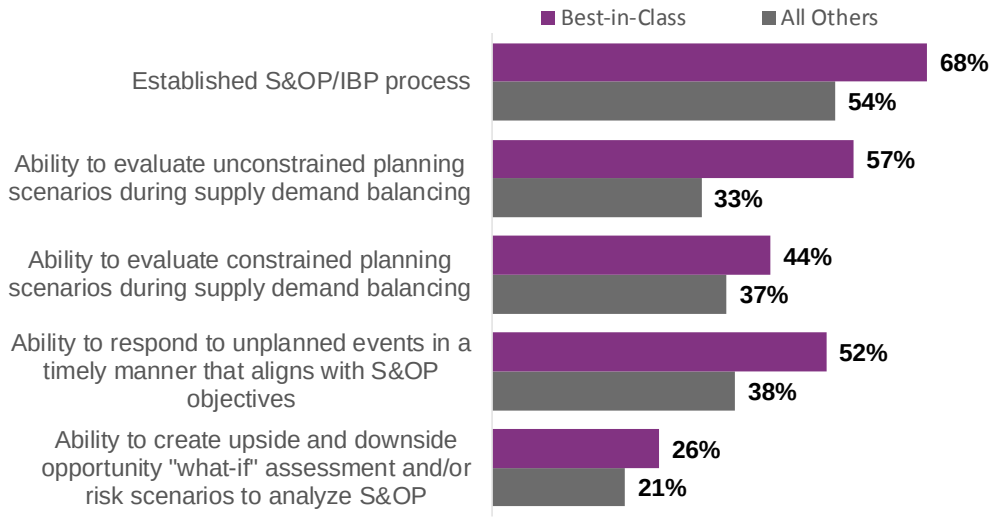
The ability to accurately forecast (within an acceptable deviation) across multiple channels and tiers requires greater refinement. The need for this capability is driven by the inventory decisions on where and how much to stock across multiple locations. The ability to break down the demand using segmentation capabilities is critical for any company serving retail or consumer markets with their products. E-commerce has caused those demands to shift significantly across distribution channels, and it is a significant factor in improving accuracy for channel and inventory positioning.

Best-in-Class S&OP / IBP Capabilities

End-to-End Critical Enterprise Process

The Sales and Operations Planning (S&OP) process, or Integrated Business Planning (IBP) process, encompasses the demand planning function, and uses it as the input for determining the execution plan. Best-in-Class companies are 27% more likely to have an S&OP process in place (Figure 2).

Figure 2: S&OP / IBP Critical Enterprise Capabilities



The fundamental baseline requirement of the process is to create a feasible operations plan to be executed based on the demand plan in a supply / demand balancing process. Ideally, the demand exactly matches the available capacity, but that is seldom the case. The supply / demand balancing process revolves around determining what it will take to meet the demand — often referred to as an *unconstrained view* of the plan — and what can be supported with the existing capacity and resources — commonly referred to as the *constrained view*. The goal is to achieve a feasible plan that can be executed. The outcome of the process will often lead to adding capacity to meet the requirements or, conversely, looking for some growth

opportunities to better utilize the existing capacity. Or it could be a combination of both, depending on the demand mix.

Best-in-Class companies are 27% more likely to respond to unplanned events in a timely manner. The effort that goes into the supply / demand balancing process tests the basic limits of the plan and prepares the organization for the contingencies that are necessary to handle increases or decreases. The value in scenario planning is developing the contingency plans necessary to address “what if” scenarios, should they materialize. Even if the proposed scenarios do not happen, the planning and preparation generated by running them pays off with better organizational readiness.

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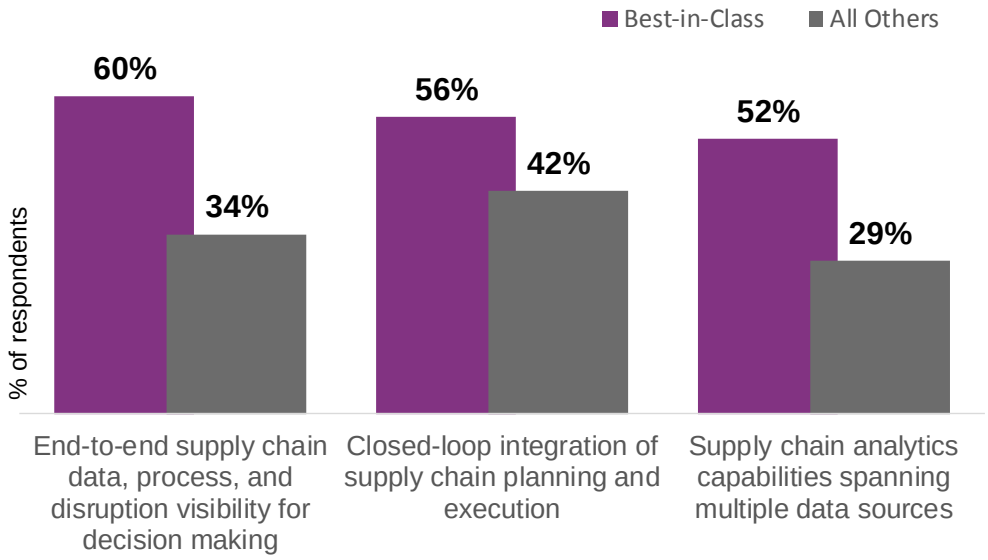
End-to-End Supply Chain Modeling
Visibility – Integration – Analytics

The more complete, or representative the model of the end-to-end supply chain is across one or multiple transaction systems, the better the perspective is to understand the impact of any changes. Figure 3 provides key capabilities that are in place for the Best-in-Class compared to All Others.

Some companies (~18%) have solutions that operate concurrently in their planning such that the impact of any change can be seen immediately across the entire supply chain. Best-in-Class companies are 77% more likely to have an “end-to-end” supply chain model for decision making. They are also 33% more likely to have the planning system integrated into any execution activities, so that any out-of-tolerance conditions can be detected immediately in the form of an exception alert.

However, that leaves the majority of companies with solutions that plan in a more sequential manner — the demand planning function hands off the forecast to the supply planning function to run scenarios offline and settle on the best execution plan alternative. Depending on the level of integration that exists between the various functions, this could happen anywhere from immediately to hours or days to complete.

Figure 3: End-to-end Supply Chain Capabilities



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Having supply chain analytics to support planning across multiple data sources provides further insight into options before changes are initiated. The consolidation of multiple sources on a timely basis can be *make or break* supply chain capabilities.

Summary and Key Takeaways

Supply chain leaders are under constant pressure to reduce costs and increase efficiency through improved forecasting and supply chain planning. Customer mandates for faster and improved service, along with demand volatility, require an agile and responsive supply chain organization to recognize issues as they arise and take corrective action. Having a model and the analytics to critically evaluate the constant churn in a controlled manner is the difference between chaos and a smoothly operating supply chain.

There is an old adage that is still relevant: “The first thing you know about a forecast is that it’s wrong!” Visibility is essential, and the ability to continuously monitor and evaluate the changes to determine their impact, and then respond accordingly to keep a plan on track, is the heart and soul of planning function. Aberdeen recommends that all companies follow the lead set by the Best-in-Class to improve their supply chain results.

About Aberdeen Group

Since 1988, Aberdeen Group has published research that helps businesses worldwide to improve their performance. Our analysts derive fact-based, vendor-neutral insights from a proprietary analytical framework, which identifies Best-in-Class organizations from primary research conducted with industry practitioners. The resulting research content is used by hundreds of thousands of business professionals to drive smarter decision-making and improve business strategies. Aberdeen Group is headquartered in Waltham, Massachusetts, USA.