


RR

DEMAND SEGMENTATION USERS ARE BETTER EQUIPPED TO MANAGE THEIR CHANNEL CHALLENGES

March 2018

Bryan Ball
Vice President and Group Director
Supply Chain, ERP, and GSM Practices

ABERDEEN



With customers steering the boat, all companies have been impacted by shifting channels resulting from customers demanding what, when, how, and where they want their product delivered. The impact of eCommerce has resulted in direct-to-customer shipments from all levels in the supply chain including retail stores, retail distribution centers, distributor distribution centers, manufacturers' distribution centers, and even direct from manufacturing plants. Managing these channel shifts and demand volatility requires not only diligence and agility, but also the demand segmentation capabilities to tackle this problem consistently and methodically. This report examines the adoption of demand segmentation and its benefits in tackling demand volatility and channel shifts.

Introduction

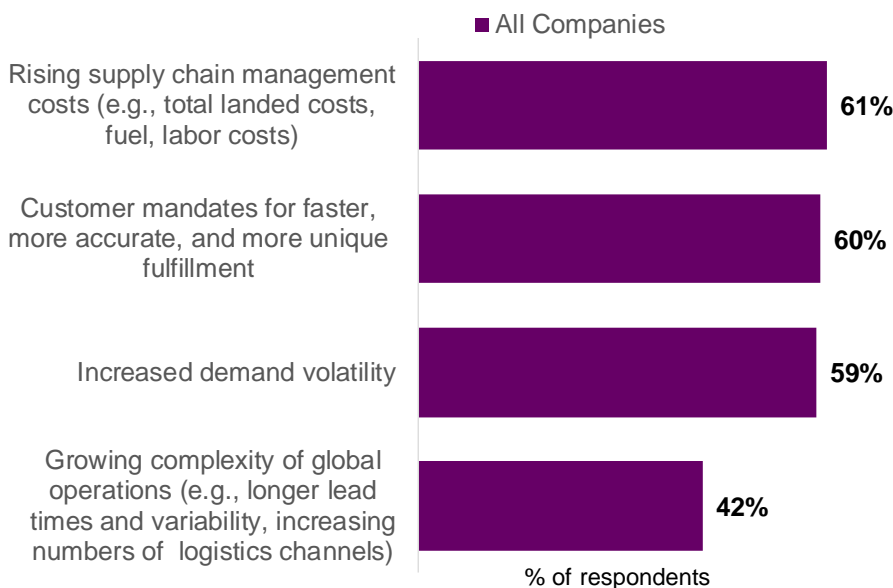
Has demand volatility taken a toll on your service levels? Has your company seen shifts in demand across channels? Is it increasingly more difficult to deploy inventory intelligently using fact-based data?

You are not alone. Demand volatility and customer mandates are two of the top three pressures driving business behaviors. As the speed of business continues to increase, the question for companies is: How should we respond? To answer the question, companies must put in place solutions that enable agile response. There is no time to waste operationally — systems and processes must work seamlessly, and it starts with establishing the most accurate statement of demand that can be determined. Do you really know where your demand is coming from? Is your organization equipped with the right tools for the job?

Market and Business Pressures

The market and business pressures impacting supply chains are similar for All Companies. Cost is always near the top of the list and supply chain complexity is certainly one of the contributing factors to cost concerns. Customer-facing issues, customer mandates and demand volatility, are also major pressures. Empowered customers are driving the ship, by demanding what, when, where, and how they receive the product. This puts tremendous pressure on global supply chains to speed up responsiveness and cover all channels, while minimizing inventories. They need results — not excuses!

Figure 1: Business Pressures



n = 154, Source: Aberdeen, February 2018

Segmentation Users vs. Non-Users Performance

Dividing the data by those acknowledging their use of demand segmentation capabilities (Users) and those that do not (Non-users) shows the advantage segmentation Users have across key performance metrics in planning and execution versus Non-users (sidebar). Segmentation Users show a significant advantage of 20 percentage points at the customer service level, and this is largely tied to having a better understanding of the anticipated demand.

Performance Metrics

Segmentation Users vs. Non-users

In this report, respondents were ranked on the following criteria:

Average Customer Service Level:

- ▶ Users: 83%
- ▶ Non-users: 63%

Cash Conversion:

- ▶ Users: 46 Days
- ▶ Non-users: 54 Days

Gross Margin:

- ▶ Users: 24.5%
- ▶ Non-users: 24%

Average Forecast Accuracy — Product Family Level:

- ▶ Users: 58%
- ▶ Non-users: 35%

Average Forecast Accuracy — SKU Level:

- ▶ Users: 53%
- ▶ Non-users: 32%

Finished Goods Inventory turns per year:

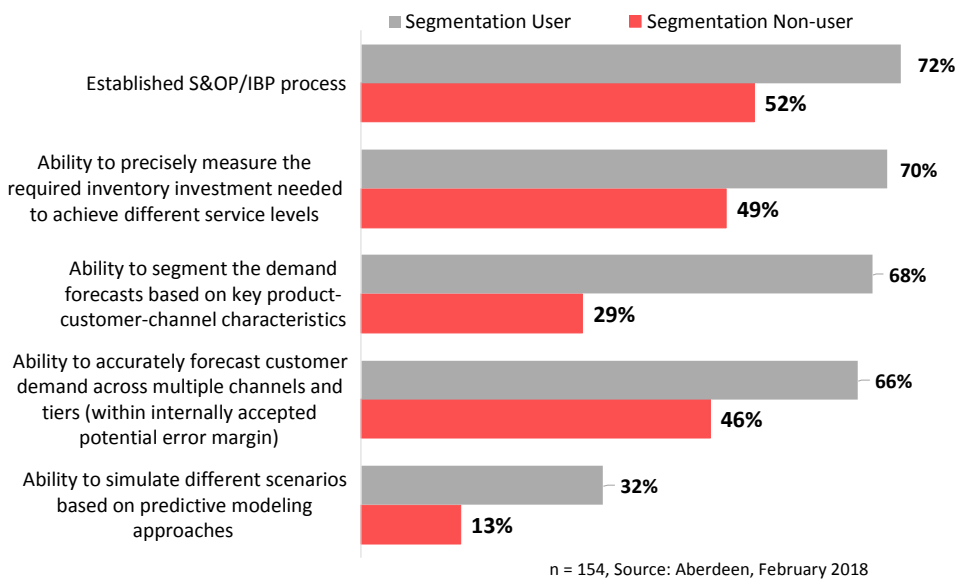
- ▶ Users: 59 turns
- ▶ Non-users: 53 turns

These Users have a startling advantage in forecast accuracy as well — over 67% higher at the family level as well as the SKU level. However, even though Users hold a significant edge in performance over Non-users, with accuracy in the 50% - 60% range they still have a lot of work to do. The advantage in forecast accuracy, which has a direct bearing on inventory optimization, manifests itself in Users' 11% higher finished goods inventory turns versus Non-users.

Across Organization Planning

Figure 2 shows the capability advantages that segmentation Users have over Non-users in planning processes across the entire organization, Users are 37% more likely to have an established sales and operations planning (S&OP) and integrated business planning (IBP) process in place. This is not a surprise, when considering that the initiative to better understand demand volatility often comes from the S&OP process itself.

Figure 2: Across Organization Planning



Improvement in forecast accuracy directly enhances the impact of IO efforts, enabling Users to be 44% more likely to define the correct inventory levels.

Improvement in forecast accuracy directly enhances the impact of inventory optimization (IO) efforts, enabling Users to be 44% more likely to define the correct inventory levels. Segmentation may come in many forms — customer, product, geographic, channel partners, etc. Users are 2.3x as likely as Non-users to segment demand by multiple variables.

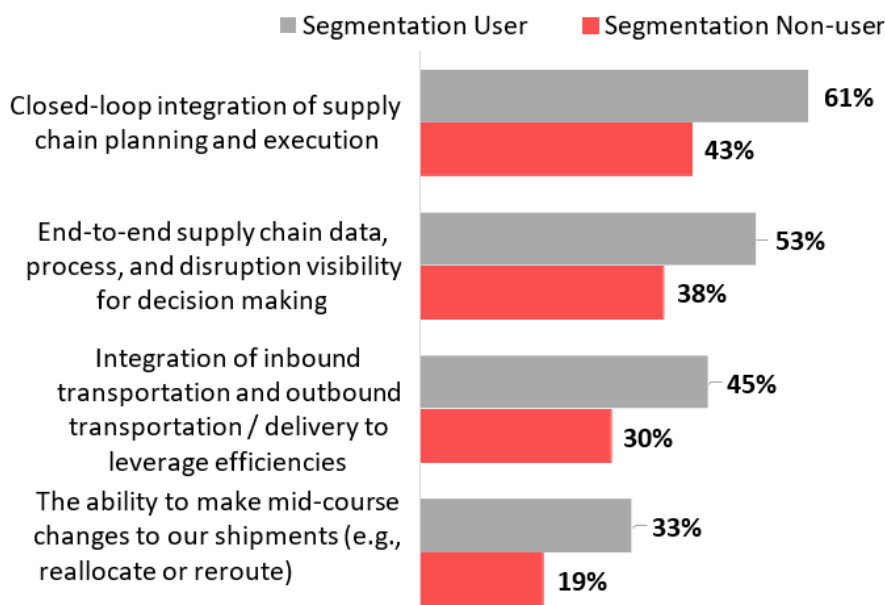
Segmentation Users are 43% more likely to forecast demand across multiple tiers and channels and are more than twice as likely to be able to

simulate different scenarios based on predictive modeling approaches. The benefit is more precise inventory targets and fewer corrections necessary at all tiers and channels.

Across Organization Execution

Across the board, Best-in-Class companies have an advantage in visibility at all levels — the key to keeping a plan and commitments on track (Figure 3). Better segmentation and insight to demand shifts directly affect fulfillment execution by improving the inventory stocking targets through better forecast accuracy in the IO modeling process. Having closed loop integration simplifies that process, so that all elements in the organization are operating from the same set of numbers.

Figure 3: Across Organization Execution



n = 154, Source: Aberdeen February 2018

Visibility across all the solution components provides access to the data (inventory) and timing to make informed allocation and commitment decisions. Without that visibility, using historical averages to make commitments or allocations is a dangerous practice, unless demand volatility is very low — which is not the case based on our research which indicates that demand volatility is one of the top business pressures and a high causal factor on the supply chain disruptions list.

The Aberdeen maturity class framework is comprised of three groups of survey respondents. This data is used to determine overall company performance. Classified by their self-reported performance across several key metrics, each respondent falls into one of three categories:

- ▶ Best-in-Class: Top 20% of respondents based on performance
- ▶ Industry Average: Middle 50% of respondents based on performance
- ▶ Laggard: Bottom 30% of respondents based on performance

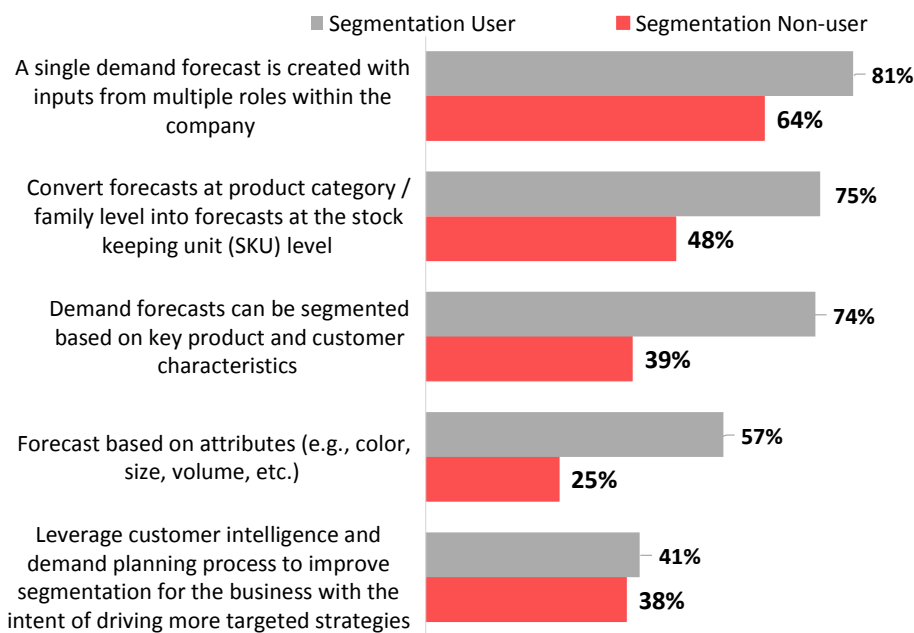
Sometimes we refer to a fourth category, All Others, which is equal to the sum of Industry Average and Laggards.

Segmentation can be used to improve the integration of inbound and outbound transportation. Better utilizing capacity by centrally managing both inbound and outbound shipments under one roof has a favorable impact on costs. Users are 50% more likely to capitalize on this opportunity than Non-users. Also related to freight management, segmentation Users are also 72% more likely to make mid-course corrections than Non-users because they have a more granular view of the real demand through their segmentation capability.

Demand Planning Process

Core demand planning processes are still critical. Figure 4 shows where segmentation Users get significantly more out their demand planning processes than Non-users, demonstrating the overall benefit that segmentation brings to the table in managing the demand statement.

Figure 4: Demand Planning Process



n = 88, Source: Aberdeen March 2018

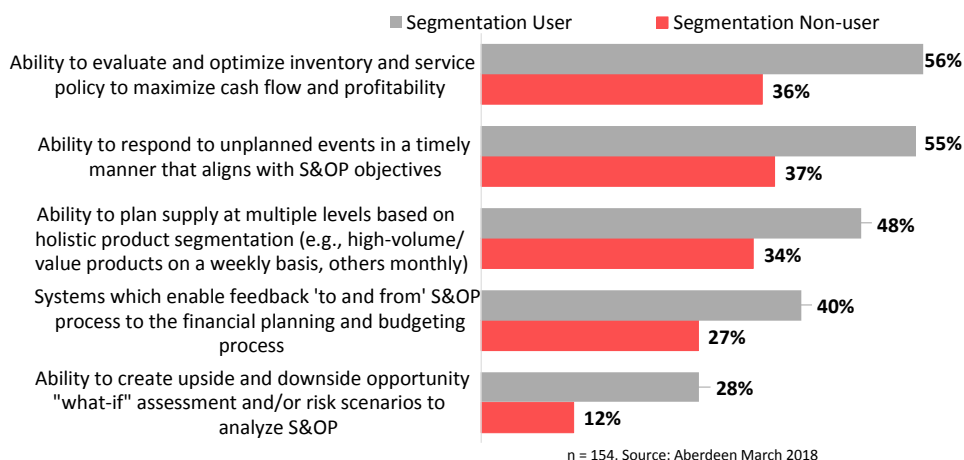
Segmentation Users are:

- ▶ 26% more likely to arrive at a single line item forecast
- ▶ 58% more likely to have the ability to roll requirements up and down from SKU to aggregate levels and vice versa
- ▶ 88% more likely to have the ability to segment demand forecasts based on key product and customer characteristics
- ▶ 2.2 times as likely to forecast based on attributes (e.g., color, size, volume, etc.)
- ▶ 7% more likely to leverage their segmented demand view to develop more targeted strategies

S&OP/IBP Specific Capabilities

We now turn our attention to specific benefits segmentation Users demonstrate within the S&OP/IBP process, given that they are 37% more likely to have an established S&OP/IBP process (Figure 2). The first observation is that segmentation Users demonstrate a clear adoption advantage across the board on all processes vs. Non-users, by 40% or more in every case.

Figure 5: S&OP/IBP Specific Capabilities



Optimizing inventory and service policy to maximize cash flow and profitability is high on the list, where Users are 57% more likely have this capability in place. Due to a more refined view of demand, Users are 48% better prepared and more likely to respond to an unplanned event in a timely manner. The same holds true for planning at multiple levels based

Segmentation Users are 88% more likely to have the ability to segment demand forecasts based on key product and customer characteristics.

Segmentation Users are also 47% more likely to have the S&OP plan tied to the financial planning processes, which enhances financial analysis and improves the accuracy of financial projections through better demand visibility.

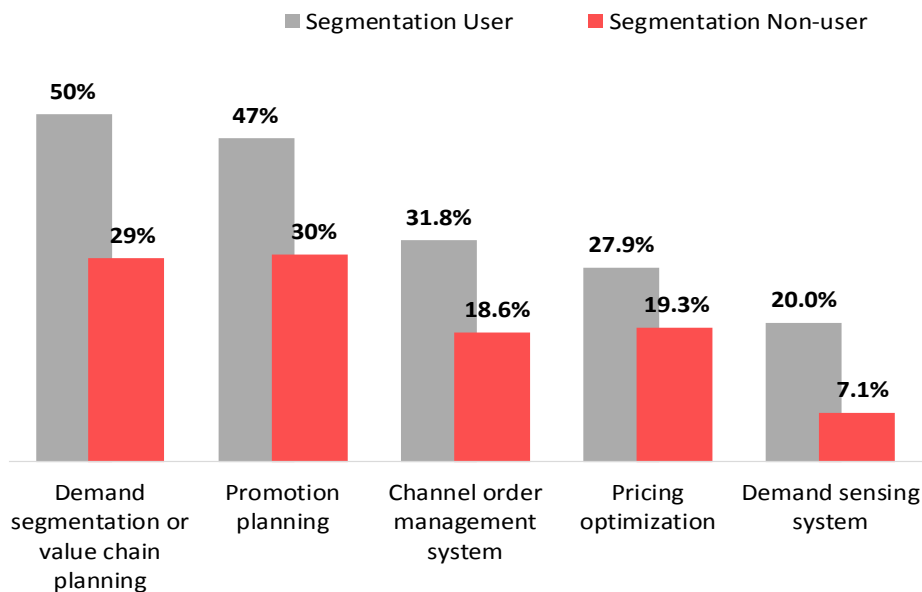
on a holistic product segmentation where Users are 40% more likely to have the capability.

Segmentation Users are also 47% more likely to have the S&OP plan tied to the financial planning processes, which enhances financial analysis and improves the accuracy of financial projections through better demand visibility. They are also more than twice as likely to incorporate what-if analyses, with richer scenarios based on a more targeted view of demand, which are powerful enhancements to the S&OP/IBP process.

Advanced Channel/Segmented Solutions

Figure 6 reflects the use of technology that leverages segmentation data to target and plan specific actions — such as value chain planning, promotions, demand sensing, and channel order management — for a much more granular approach to identify and address specific segments with targeted actions.

Figure 6: Advanced Channel/Segmented Solutions



n = 154, Source: Aberdeen February 2018

Because of its importance to the business overall, it's no surprise that value chain planning is more widely adopted by the Users.

Value chain planning is a solution where the Users have a fairly strong adoption level, and are 71% more likely to have it in place than Non-users. The focus is to provide a clearer picture to important segments of the business where the company has a vested interest in maintaining or growing the segment. Because of its importance to the business overall,

it's no surprise that value chain planning is more widely adopted by the Users.

Promotion planning lives up to its title and facilitates the planning and management of promotions. Depending on the business, particularly in any retail or consumer products channel, promotion planning may be a driver behind significant volume for the business, so its value and level of adoption are more dependent on the type of business segment. Users are 56% more likely to have this in place compared to Non-users.

Users are 71% more likely to have adopted channel management technology, which is a huge help in identifying and tracking demand/orders and summary views of activity within and across the channels. For those companies who sell through many distribution channels, this is almost a requirement, and can greatly assist in picking up shifts in channel volumes.

Pricing optimization is extremely valuable in retail where companies are constantly monitoring multiple markets to know where to alter prices to remain competitive. These are usually controlled by algorithms with guidelines and exception management filters and are intended to handle large volumes of SKUs and prices across all locations and markets.

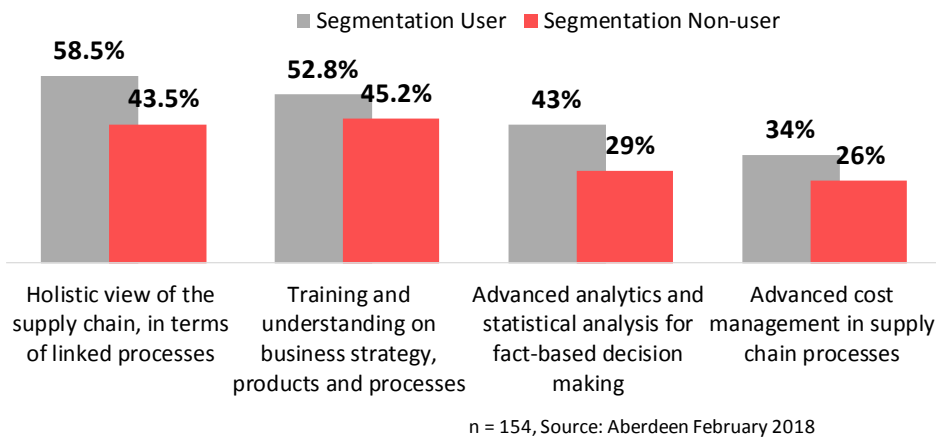
Demand sensing is an extremely valuable tool that segmentation Users are 2.8x as likely to have in place compared to Non-users. Demand sensing addresses the issues brought about by omni-channel fulfillment, which determines not only how much demand by channel, but also addresses specific location. These solutions use algorithms and machine learning to adjust the parameters as actual demand/usage occurs compared to the original plan. For companies who have omni-channel, demand sensing can help.

Informed Organization Yields Critical Insights

It's one thing to have the tools available, but it is absolutely essential for those who are using the tools and capabilities to be knowledgeable enough about the business to recognize the value behind the segmented data they see.

Demand sensing addresses the issue brought about by omni-channel fulfillment, which determines not only demand by channel, but also addresses specific location.

Figure 7: Informed Organization Yields Critical Insights



Segmentation Users are 34% more likely to have a holistic view of the supply chain, and 17% more likely to understand company products, processes, and business strategy. This is extremely valuable in understanding the changes in demand patterns, interpreting the underlying causes, and recognizing what the changes mean to the business overall.

Advanced analytics to capture the trends, along with drill down capabilities to see the underlying issues, greatly improves the speed and quality of the decisions. Users are 50% more likely to have advanced analytics in place to maximize their segmentation efforts. As a related topic, advanced cost management is an area that can make or break a business, particularly when it comes to omni-channel cost-to-serve information. Segmentation can be very useful in properly allocating costs by segments. To make profitable decisions on direct-to-customer orders, it's imperative to know the true cost-to-serve to make informed decisions.

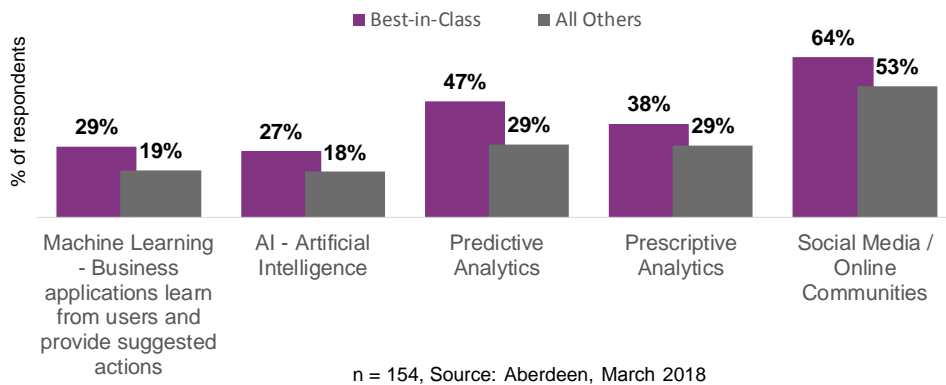
Advanced Analytics Capabilities

Supply chain management has always been based on analytics and has often driven the vision for how companies view and analyze the many challenges in their supply chain. There has been a lot of discussion around the use and adoption of predictive and prescriptive analytics and where and how they're used. The other hot topic related to analytics centers around the use of machine learning and artificial intelligence to find greater insights and connect dots that have never been connected. Figure 8 shows the use of these technologies by Best-in-Class companies versus All Others. Defining the terms at a basic level:


Segmentation can be very useful in properly allocating costs by segments. To make profitable decisions on direct-to-customer orders, it's imperative to know the true cost-to-serve to make informed decisions.

- ▶ Predictive analytics uses data and a model to make a prediction, such as tying the S&OP process to the financial planning and budgeting process, to forecast the impact or behavior of a planned project.
- ▶ Prescriptive is much more of a what-if approach and looks at the possible options for what would make a difference in the outcome of a given plan by modeling different approaches that could change the results. For example, if the financial projection is not in line with expectations, what are the options that can change the predicted outcome, such as promotions, pricing, and targeted campaigns addressing certain segments?
- ▶ Machine learning refers to solutions that recognize what preferences have been used as a response to problems or conditions, and then uses those preferences to provide recommendations when those types of conditions arise. An example is a planner faced with an exception alert that a supplier delivery will arrive late. Machine learning would make recommendations based on actions taken in the past to resolve that issue, along with the anticipated outcome, as a first step toward resolving that situation.

Figure 8: Advanced Analytics



Best-in-Class companies are also more likely to engage in artificial intelligence (AI). Coupled with social media and online communities, AI has proven to be effective in connecting the dots in ways that were not previously understood. There may be many streams of unstructured data from many channels, but finding patterns and/or cause and effect relationships is where AI can provide tremendous insight and intelligence. Supply chain management is fertile ground for improved insights,



particularly as the boundaries of most supply chains already extend beyond their own four walls and involve multiple networks, suppliers, countries, carriers, and other service providers that are part of the global supply chain.

Summary and Key Takeaways

Demand segmentation is a valuable tool for companies to better understand the drivers behind their demand, whether it is the customer, the product, and/or specific attributes and geographies. In an omni-channel world, where customers dictate when, where, how, and what they want to purchase, traditional channels have undergone tremendous shifts. Companies must adapt and establish the capability to understand these shifts and adjust accordingly on a continuous basis, in order to remain competitive and prosper.

Segmentation Users' performance at the forecast accuracy level warrants a serious look at what they are doing differently, particularly with technology, that can leverage the segmentation data for improvement in applications, such as channel management, value chain planning, and promotion management tools. Forecast accuracy improvement is worth the fight to improve service and inventory turns, which are much higher for the segmentation Users. Segmentation Users are 50% more likely to have advanced analytics capabilities in the form of predictive, prescriptive, and even artificial intelligence. Based on their performance, Aberdeen recommends that following the segmentation Users' playbook is a great place to start for companies who are looking to improve their demand management and forecast accuracy results.

Related Research

How the Best-in-Class Leverage Their S&OP/IBP Process to Better Manage Their Customers; February 2017

Are your Demand Management Capabilities Ready to Support a Prescriptive S&OP / IBP Process?; January 2017

CSCO Planning Strategies for 2017: Addressing Demand Volatility; November 2016

How Best-in-Class Are Solving the Omni-Channel Fulfillment Challenge; September 2016



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.

This document is the result of primary research performed by Aberdeen Group and represents the best analysis available at the time of publication. Unless otherwise noted, the entire contents of this publication are copyrighted by Aberdeen Group and may not be reproduced, distributed, archived, or transmitted in any form or by any means without prior written consent by Aberdeen Group.