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Demand Planning Segmentation

Getting the MAX Out of Your Business

January 2013

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Analyst Insight

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In our recent report *Demand Planning: Renewed Focus for Companies to Drive S&OP and Operational Improvements*, we reviewed in detail the importance of the Demand Planning function and emphasized the imperative to constantly strive for accuracy while knowing that 100% may never be achieved. For companies that offer products involving sizes, colors, special attributes, packaging, or channel configurations, the forecasting challenge is even greater because of all the possibilities and permutations. Determining how much of a product or product type to commit to certain channels, customers, or configurations just compounds the problem.

Companies dealing with these issues frequently turn to demand segmentation as the best solution. In this insight we will discuss where and why demand segmentation is typically utilized and examine the capabilities and benefits achieved by those who use demand segmentation and those who do not.

Analyst Insight

Aberdeen's Insights provide the analyst's perspective on the research as drawn from an aggregated view of research surveys, interviews, and data analysis

Business Context

To better understand where, how, and why demand segmentation is used we turned to the variables that best seemed to determine its use.

We considered size of company as a potential driver by breaking the population into small, medium, and large companies, but found very little differentiation. We also considered the type of company such as manufacturer, service based, brand owner, or spare parts, but once again there was little differentiation. However, when we focused the lens by industry and by business problems requiring support we got some very definitive results.

Segmentation by Industry

Figure 1 provides the results by industry, which points out those requiring a segmentation approach as well as those industries that typically do not make use of segmentation.

The population in Figure 1 is broken into those using segmentation and those that are not. The top three industries are consumer packaged goods (CPG), wholesale / distribution, and industrial product manufacturing. The percentages are for the number of respondents to the survey. Evaluating the percentage of the total for each industry provides the insight.

Industry Definitions

Wholesale / Distribution: Companies such as industrial, plumbing, electrical, and automotive supply.

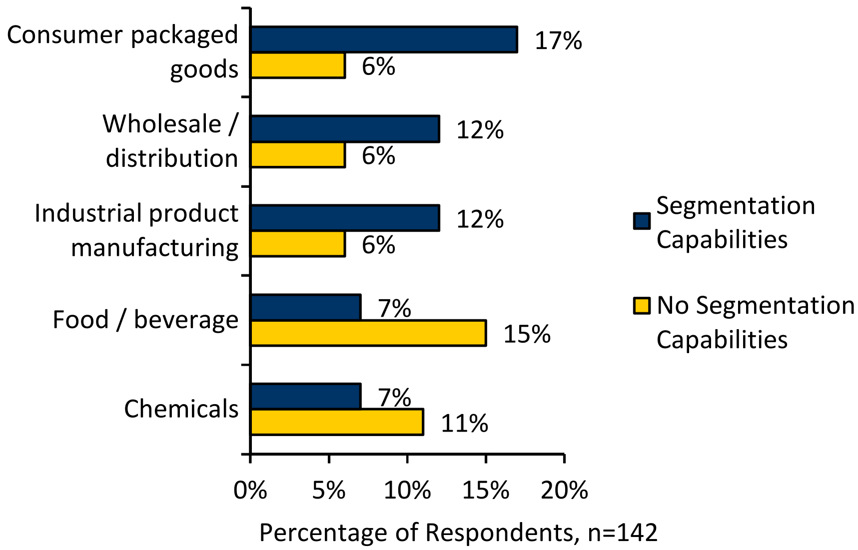
Consumer Packaged Goods: Products such as soap, shampoo, household items, convenience store items, and grocery

Industrial Product manufacturing companies: Products such as engines, compressors, valves, switches, lubricants motors, etc.

For example, when considering CPG, 17% of the total 23% of respondents used segmentation, which equates to 74% of the CPG companies who responded.

Similarly, for the other two categories, 12% of the total 18% for wholesale / distribution, equating to 67%, use segmentation; and 12% of the total 18% for industrial product manufacturers, equating to 67%, use segmentation.

Figure 1: Segmentation Usage by Industry



Source: Aberdeen Group, December 2012

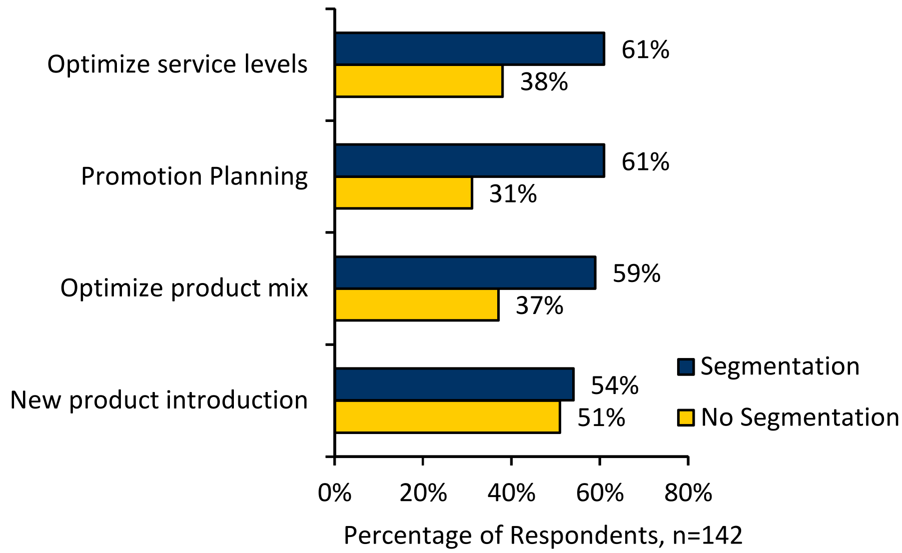
Looking at these industry types and their customers helps define the nature of segmentation issues. When servicing customers, location and shipping configuration can be critical as well as packaging for different store chains using the same product. Differentiation through packaging often highlights certain features championed by a chain or brand. In CPG it could even be private branded for a particular chain; the industrial product sector might need the same item but in different colors, lengths, or thickness despite it all coming from the same basic product.

The other realization from the breakdown in Figure 1 is that process industries like chemicals and food and beverage hardly use segmentation at all. The fact that they make product typically in bulk or at a commodity level does not require the same precision for end-use as the other industries.

Differentiation by Business Challenges

Figure 2 shows those using segmentation versus those that don't based on the business challenges they are trying to solve which require technology support. This also yielded some interesting results.

Figure 2: Segmentation by Business Challenge



Source: Aberdeen Group, December 2012

Figure 2 reflects the likelihood of those organizations using demand segmentation who are engaged in addressing a particular business challenge. The percentage of those tackling particular challenges is significantly higher for three of the issues identified than those not using segmentation. In this case it is the magnitude of differentiation that stands out.

For example, 61% of companies tackling service level issues are likely to be using segmentation versus 38% without service level issues.

Similarly for the others;

- **Promotion planning**, 61% versus 31%. Promotion planning is a disaster waiting to happen unless segmentation is used. Typically, there might be a specialized display or package and some discounted pricing, along with an advertising campaign. Given the level of targeting required for a successful promotion, the volume, customer type, and how to reach them through advertising is what segmentation helps to define.
- **Optimize product mix, volume, size**, 59% versus 37%. Optimizing mix, volume, and size are really a definition of segmentation itself and offer yet another view of how segmentation might be performed using these three categories.
- **New product introduction**, 54% versus 51%. New product introductions are typically focused on targeting the right audience / customer / market to maximize the success of the launch. The only way to achieve that understanding is through some form of segmentation.

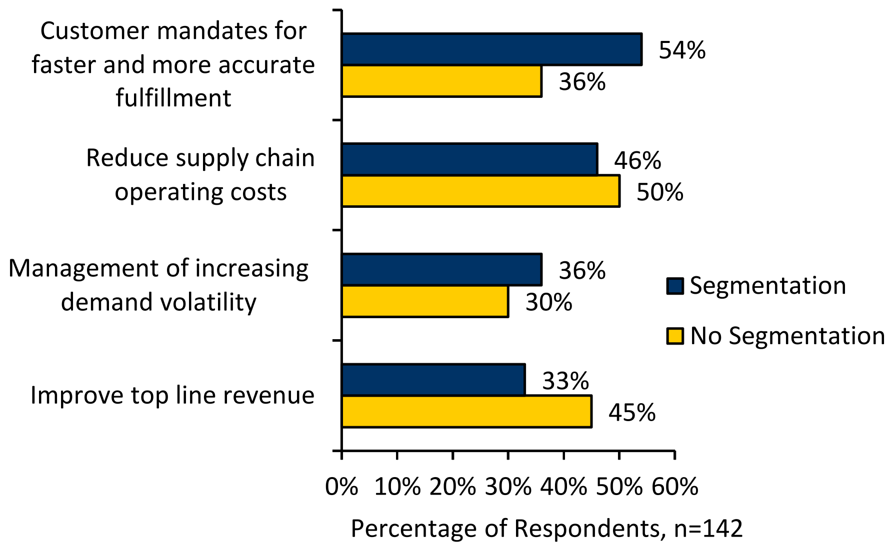
Using segmentation to drive service-level improvement is not surprising when you consider that inventory policies to support customers are driven by demand as the starting point. Having a more granular view helps to better define demand patterns. This is the first step to defining service-level polices and inventory targets.

Pressures for Those Using Segmentation

Figure 3 looks at the pressures felt by companies using segmentation compared to those that don't. Those using segmentation are focused on customer demands and demand volatility and less so on costs.

Those using segmentation are also less concerned about growing the top line and more about trying to get the most out of their business to improve the return on their investment. Concentration on the right product at the right time in the right place is what segmentation addresses. It is more of a refinement and maximization approach for the volume available and how to better leverage the volume that exists.

Figure 3: Pressures for Companies Using Segmentation



Source: Aberdeen Group, December 2012

Benefits for Segmentation Users

Table 1 identifies the benefits for those with segmentation capabilities. We chose the business metrics that highlight the most significant advantages of demand segmentation.

Return on investment explains why those using segmentation are not concerned with top line growth. They are much more interested in maximizing the return on what they have as demonstrated by the huge return on net assets (RONA) improvement of 42%.

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Table 1: Metrics Showing Segmentation Benefits

Metrics	Segmentation Capabilities	No Segmentation Capabilities
Current Return on Net Assets per year	17%	12%
Average Customer Service Level	90%	87%
Average Forecast Accuracy at Product Level	75%	65%

Source: Aberdeen Group, November 2012

Average Customer Service Level is three points higher and is also one of the targeted processes identified by respondents using demand segmentation.

The Average Forecast Accuracy at the product level is 10 points higher and reflects the greater insight and precision into the demand gained through segmentation.

Looking at the metrics in total quickly creates the profile for users of demand segmentation who are getting the most return out of their business. Clearly they really understand the subtle drivers of their business when it comes to customer service and forecast accuracy.

Customer Demand Planning Capabilities

Figure 4 highlights the stark differences between those using demand segmentation and those who do not. Each of the capabilities listed are associated with the fundamentals of demand planning and the magnitude of difference across the board is the story. The likelihood of these capabilities being in place is more than twice as great across the board and in some cases three to four times greater.

Coming up with a single forecast from multiple inputs requires a basic system in place. Not having that indicates that little formality exists in the forecasting process.

Converting forecasts from a product category or family level to a SKU level is not necessarily required for all businesses but again is fundamental to most forecasting systems. In general it is the ability to roll up and disaggregate demand. This would be a key capability to have in support of a sales and operations planning process.

Including promotions and other demand-shaping activities is an area identified as a target for companies using segmentation. However, businesses that do not typically have promotion or demand-shaping requirements might get by without it.

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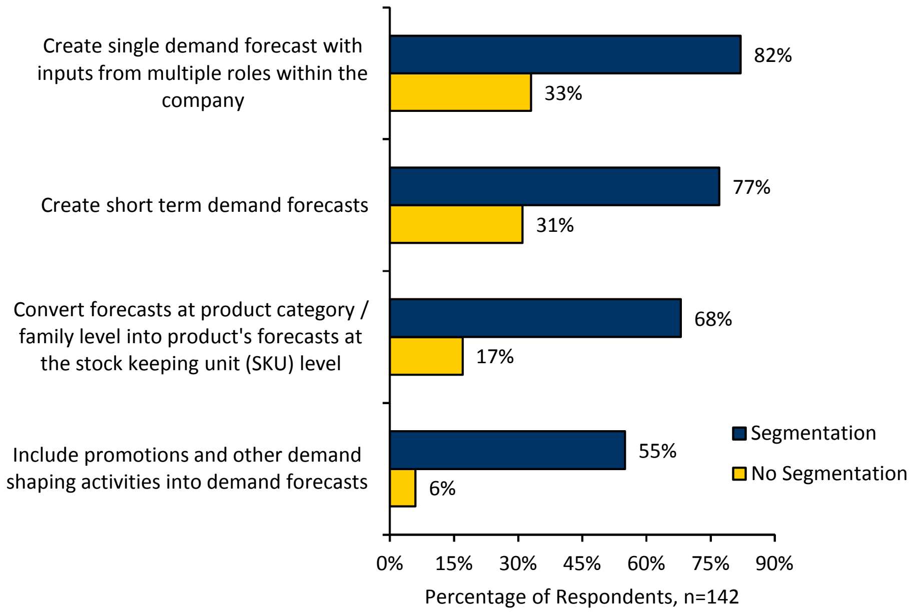
Figure 4: Demand Planning Capabilities



Source: Aberdeen Group, December 2012

"We currently use an access based system that gathers forecasts from the salesperson — forecast level is at customer / product class. This forecast drives our entire financial package for monthly / quarterly / annual planning including capacities and material supply."

~Director
Large Irrigation Company

The gap in fundamental capabilities suggests that businesses requiring any degree of accuracy at a product level need to use segmentation. Going back to our industry findings, this was pretty much the case. Only those businesses engaged in bulk or commodity types of products might be able to not use any form of segmentation.

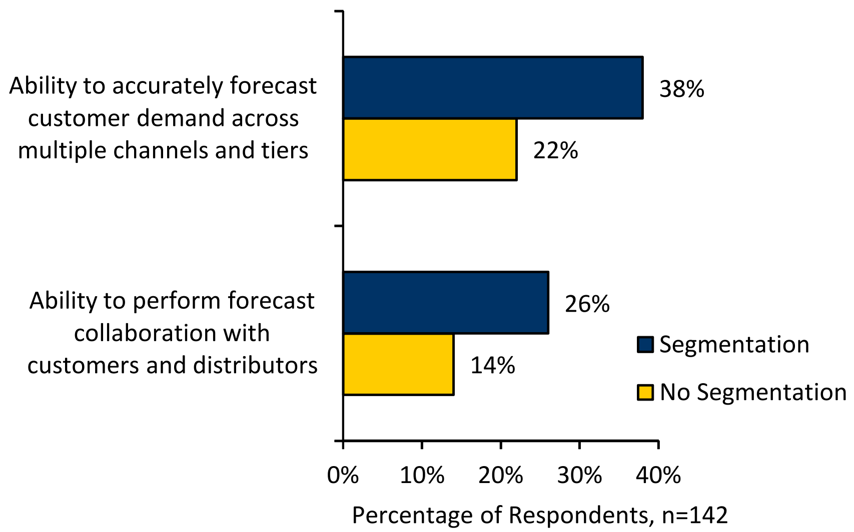
Sell-Side Capabilities

Figure 5 reflects specific sell-side capabilities that go beyond basic forecasting fundamentals and again there is a significant advantage for those using segmentation.

Forecasting across multiple channels and tiers is one definition for segmentation. The differentiation is at the market and structure level rather than at a product or attribute level. Again not everyone needs this ability based on their business, howeverif required, segmentation capabilities provide a huge advantage.

Customer collaboration requires the ability to at least discuss demand in the customer's terms or regarding their specific volume, so having that visibility would provide a strong advantage. From Figure 5 there is a much likelier probability that segmentation will be in use (26% to 14%).

Figure 5: Sell Side Capabilities



Source: Aberdeen Group, December 2012

"We face challenges with different customer bases demanding different product. This makes it difficult to decide on what to manufacture and what not."

~Managing Director
Large Apparel Company

Technology Enablers

Figure 6 provides a view of the technology enablers that are in place for those using segmentation compared to those that do not. We would expect a technology advantage for those using segmentation versus those that do not since it is a specific tool. The gap is again significant.

Statistical forecasting systems are pretty much the baseline from a technology perspective to support any formal demand-planning capability. Not having a statistical forecasting system reduces the functionality down to the spreadsheet level which might be enough for the industries that produce bulk or commodity products, but not for any company that provides a completed or packaged SKU. Those using segmentation are 95% more likely to have statistical forecasting in place (72% to 37%).

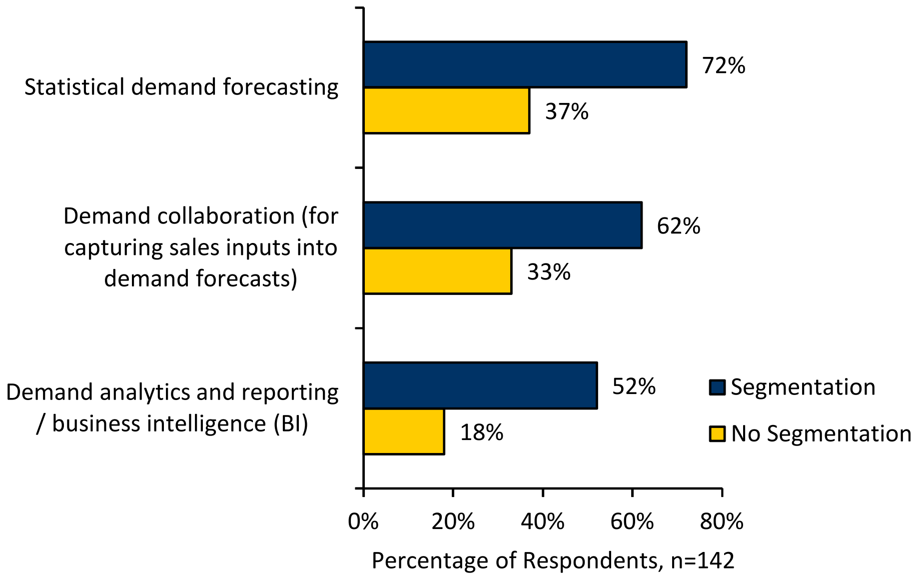
Demand collaboration enablers are a must for those trying to engage in customer collaboration, and segmentation users show a clear advantage by a factor of two to one. Those wanting to collaborate require segmentation capabilities to be able to view a customer's demand, offering both a granular view of the segments demand, as well as the segments percentage contribution to the total comprehensive demand plan . About the only discussion that could be held with a customer without discussing their specific demand would be the general level of business or a directional discussion on overall volume.

"We face challenges of sales buy-in and serious use of collaboration and forecasting horizon."

~Managing Director
Large Industrial Manufacturer

Business analytics also play a key role for those using segmentation by providing the solutions to drill down and analyze differences. This supports the notion that those using segmentation are focused on getting the greater efficiency out of the business and improving their return on assets. Having strong business analytic capabilities enables this ability.

Figure 6: Technology Enablers



Source: Aberdeen Group, December 2012

Key Takeaways

A summary for the Demand Segmentation insight highlights some of the key findings discussed in our report. The following are conclusions and takeaways for companies using demand segmentation compared to those that do not.

- Fundamentally, a lack of basic system capabilities in place to come up with a single forecast from multiple inputs is indicative of little or no formality in the forecasting process. (no segmentation)
- Segmentation users have a 42% improvement in their RONA.
- Segmentation is a "must have" capability for Wholesale / Distributor, Consumer Packaged Goods and Industrial Products companies.
- Companies focused on customer service, new product introduction, optimizing mix and promotion planning are more likely to use demand segmentation.
- Segmentation companies have superior capabilities for demand planning and customer collaboration as shown by a 10% advantage in forecast accuracy.

While some industries are less likely to use demand segmentation than others, our research indicates that those with demand segmentation capabilities have achieved superior results in solving key business challenges, including customer service, forecast accuracy and a better return on investment. It is clear that companies with demand segmentation capabilities have a significant edge in their demand planning precision and are driving more value for their business.

For more information on this or other research topics, please visit www.aberdeen.com

Related Research	
Demand Planning: Renewed Focus for Companies to Drive S&OP and Operational Improvements; November 2012 *S&OP: A Critical Process for Superior Performance*; September 2012	*Supply Chain Control Tower: Concept and Impact*; August 2012 *CSCO View of Resilient Supply Chains*; September 2012

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