

# Integrated Demand Management: When Will We Start Using Downstream Data?

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### Research

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### **Research Methodology and Overview**

For the purposes of this report, downstream data is defined as data that originates downstream on the demand side of the value chain. It can include point-of-sale data, T-log data, distributor data, social and unstructured data sources, retail withdrawal data and retail forecasts. Integrated demand signal management is the use of this data in a more holistic and integrated demand management process.

The use of channel data is evolving and this report is designed to give the industry an update on progress. Data for this report is based on two inputs: quantitative survey data from twenty-nine respondents (manufacturers) that use downstream data for integrated demand signal management, and qualitative input from attendees at an Integrated Demand Signal Management event that was attended by eleven manufacturers and four retailers. Data was collected in the fall of 2012.

While the study demographic is a small number, the respondents represent an experienced panel group. In the study, 90% of the respondents were using downstream data. The average time of usage is four years.

### **Executive Overview**

Point-of-sale data, from retailers, has been available to consumer products manufacturers for over four decades. However, they still have not figured out how to use it. Initially, it was an issue of data availability. Today, it is primarily an issue of change management.

What is the barrier? In large part, it is because the organization has not approached the use of these new forms of demand data holistically. Instead of mapping new processes outside-in, the organization has tried to force-fit this data into existing processes. Using the data is like putting a square peg into a round hole. It just does not fit without a process redesign.

The industry is at a standstill. In the words of a line-of-business leader, "We have not used downstream data holistically. It is like we opened three small windows in the strong-walled vertical silos of the organization and pulled this new data into existing processes. This doesn't work. The data doesn't fit. It requires a redesign. It needs to be used more holistically."

Despite the fact channel data is now available for more than 50% of the North American retail channel, and the use of the data will decrease data latency in the supply chain by 80%, few can use it. Figure 1 represents the current state. The utilization of downstream data is focused on its use in specific project areas such as sales reporting, category management and replenishment. These efforts are disconnected.

They are funded separately with different objectives. It isn't until the departments talk about integration that they find that each of these three processes have a different requirement for data frequency and granularity, and that the siloed vertical approach has limited applicability for integrated demand signal management.

#### Figure 1: Current State for the Use of Downstream Data



The more holistic vision is shown in Figure 2. In this picture, the processes are designed from the outside-in and the systems are designed to use these new data forms. This approach allows companies to redefine sales forecasting, corporate replenishment, inventory allocation systems and Available-to-Promise (ATP) systems.



Figure 2. Future State for Downstream Data Usage for Integrated Demand Signal Management

We find that most companies are asking the wrong questions. Instead of asking the question of *"Which technology to buy?"* the question should be *"What is the right design for the organization to use demand data differently to improve the holistic end-to-end response of the value network to customers?"* 

### **Current State**

The use of point-of-sale data was first piloted in 1968 at Marsh Supermarkets in Ohio. Today, the average respondent has used downstream demand data for over four years, but very little progress has been made on true usage of the data. Data is primarily used in pockets within the organization to improve sales reporting, category management or replenishment, but no consumer goods manufacturing company has designed and implemented an end-to-end value network to fully utilize the data.

Market adoption has been slow. While 31% of respondents believe that they use the data well, all agree that the data's current use is only the "tip of the iceberg." Data shown in figure 3 is the current assessment by business leaders in manufacturing using downstream data.



#### How Well Company Uses Downstream Data

Source: Supply Chain Insights LLC, Downstream Data (Aug-Oct 2012) Base: Manufacturers using/trying to use downstream data (n=29 – CAUTION: Small base size) Q11. Overall, how well does your company currently use downstream data? NOTE: Total sum does not add to 100% due to rounding.

Figure 3. Self-rating of Success with the Use of Downstream Data

### **Barriers and Opportunities**

One of the largest impediments to project success is building a business case. It is a Catch-22. Companies want a definitive Return on Investment (ROI) and are unwilling to venture forward without it. Meanwhile, companies that experiment with downstream data in any form, for any usage, report that the ROI is in "days or weeks." In short, the savings are so great that no company wants to "go on the record" and share their results. They consider it their "secret weapon."

Among the largest barriers is a clear understanding of usage and the potential that exists to redefine processes to use the data outside-in across all vertical silos. This has limited funding with 53% of solutions being funded by line-of-business leaders.

There is no clear road map, and there is no industry standard for usage. This is made even more confusing by the number of vendors touting solutions and industry associations spouting vendor messages. Meanwhile, industry leaders, albeit quietly, are slowly starting to build guiding coalitions within their organizations. The value of downstream data and integrated demand signal management is shortening the latency to sense true market demand. This value proposition is not well-understood by most senior executives.

#### Figure 4. Barriers to Using Downstream Data



#### **Top 3 Barriers to Using Downstream Data**

Source: Supply Chain Insights LLC, Downstream Data (Aug-Oct 2012)

Base: Manufacturers using/trying to use downstream data (n=29 - CAUTION: Small base size)

Q22. What are your company's top 3 barriers to using downstream data? Please select no more than 3.

The building of the business case takes inspiration, perspiration, and innovation. It starts with inspiration from a visionary leader to build the driving coalition. It gains momentum when there is a dedicated team to cleanse and harmonize the data and redefine processes to use the data. However, it requires a corporate mindset that these projects are a commitment to innovation.

Since these process are new and evolving it requires commitment to drive early market advantage.

The good news is that the vision is easier than it was five years ago. Channel data is more available with the average manufacturer receiving demand data for four types of data that represents 53% of the North American channel. Distributor data in emerging markets is also available with clear definition of this as a market requirement. However, the data is dirty, and requires manipulation. Retailer and distributor forecasts are especially problematic, and there is no industry standard for data sharing. As a result, data must be manipulated and harmonized for usage. While many companies hope for an easy, on-demand solution, this has not been the case.

#### Figure 5. Cleanliness of Downstream Data Sources



#### Downstream Data Received from Retailers vs. Clean

Source: Supply Chain Insights LLC, Downstream Data (Aug-Oct 2012)

Base: Manufacturers using/trying to use downstream data (n=29 – CAUTION: Small base size) Q17. What types of downstream data does your company get from retailers? Please select all that apply

Q17. What types of downstream data does your company get from retailers? Please select all that apply. Q19. For each type of data that you get, please rate how clean it is, on average, considering all retailers from which you get it. SCALE:

1=Extremely dirty, 7=Extremely clean

The barriers are many, and legacy issues stand in the way of progress.

 Holistic Thinking. While companies have talked about building the end-to-end value network for many years, very few companies have a process owner driving this process across the vertical silos of sales, distribution, manufacturing and procurement. Instead, the implementations are funded by independent efforts within the silos. The traditional definition of supply chain management as a distribution, planning and logistics organization makes it difficult for this group to get traction to remedy the solution.

- **Supply-centric Process Beliefs.** Demand processes are not well-understood and need a redesign. Most companies implemented systems to understand what they should manufacturer, not what they will sell. As a result, there is no good way to use the data.
- **Transactional Buy/Sell Relationships.** Even though progress has been made through sales account teams, neither retailer or manufacturer is "putting their money where their mouth is." The sharing and use of data is not tied to pricing and terms as part of the relationship.
- **Clarity on How to Use the Data to Improve Results.** While there are many industry initiatives on the use of the data, most of them are self-serving, vendor sponsored activities. Too few companies understand the larger picture.
- Slow Development of Predictive Analytics. The market will be driven by the advancement of predictive analytics to leverage the data. The current focus on downstream data repositories needs to shift from "storing the data" to "using the data."

The greatest progress on the use of downstream data has been in sales and marketing in the areas of sales reporting and category management. As shown in figure 6, the use of downstream data in the supply chain for shelf-sensing of prevention of out-of-stocks and corporate forecasting has been slow. Most companies do not know how to get started to use the data and the evolving set of new technologies to tap into this lucrative opportunity.

#### Figure 6. Relative Importance of Process Improvements for the Use of Downstream Data

### Importance of Integrating Downstream Data to Other Solutions



Important (Rated 5-7 on 7-Pt Scale)
Extremely Important (Rated 7)

Source: Supply Chain Insights LLC, Downstream Data (Aug-Oct 2012)

Base: Manufacturers using/trying to use downstream data (n=29 – CAUTION: Small base size) Q21. Please rate the importance of integrating downstream data to the following other solutions. SCALE: However, as shown in figure 7, the current use of downstream data is in traditional sales account team activities. This is where most of the efforts are sponsored, and where most of the efforts end. Most companies do not know how to use the sales account team's data to drive replenishment and enterprise forecasting processes. Very little progress has been made in this area over the course of the last five years.

## Figure 7. Importance versus Performance of Enterprise Processes to Use Downstream Data by Manufacturers



Source: Supply Chain Insights LLC, Downstream Data (Aug-Oct 2012)

Base: Manufacturers using/trying to use downstream data (n=29 – CAUTION: Small base size)

Q12. Please rate the importance within your company of using downstream data to improve the following processes. SCALE: 1=Not at all important, 7-Extremely important Q13. Please rate your company's performance on using downstream data to improve these same processes. SCALE: 1=Poor, 7=Excellent

### **Recommendations**

Opportunity is knocking. Growth for consumer manufacturers and retailers is slowing. Gone are the go-go years of double-digit growth.

Problems abound. Forecast accuracy of new products is high. Too little progress has been made in shelf sensing and replenishment. Market interest in programs like digital path-to-purchase has never been higher.

• Learn to Unlearn to Relearn. The traditional source of data for marketing and sales has been syndicated data from IRI or Nielsen. The first battle to fight in the use of downstream data is clarity on why syndicated data is not the path forward to drive the greater objectives for planning and market sensing. The data latency and accuracy issues of syndicated data make this a "no-brainer" for those that work with the data; but for the traditionalist, this is hard to understand. For the consumer products manufacturers and retailers this is a tough nut to swallow. Most are investing tens of millions of dollars in syndicated data and it is difficult to accept that this traditional data form could be inaccurate and not the right granularity to drive these new initiatives. This is a major change management issue.

- Investment Is Needed Here. This is an area that requires inspiration, perspiration and innovation. It needs to be driven by a manager that has a charter to drive an end-to-end holistic planning vision. They will only be successful with the right leadership. A successful initiative needs the support of a business sponsor that understands the potential of getting market data faster.
- Invest in New Forms of Predictive Analytics. Rewards will happen when teams use the data. In the technology market today, there has been an inverse relationship between the solutions that store the data and technologies that use the data. Winners will partner with new best-of-breed solutions to tap the value of unstructured data, learning systems, and new forms of optimization.
- Design With the Goal in Mind. Build a multi-year road map to focus on how to use new data forms to drive outside-in processes and map these from the market through the value network. A death knell for this project is to limit the business potential by insisting on IT standardization. This answer does not lie in faster reporting by Enterprise Resource Planning (ERP) vendor solutions. Likewise the answer does not lie with traditional consultants promising demand insights. Have the courage to ask tough questions and pave new paths.
- Use Digital Path-to-Purchase as the Guiding Coalition. Most consumer manufacturers have a digital path-to-purchase initiative. Power has clearly shifted to the shopper; and both retailers and manufacturers are scrambling to use digital signals to drive sales. Most of these translate to swat teams within marketing. Most do not realize that the effective use of downstream data is an important foundation. New forms of analytics for text mining, sentiment analysis and predictive analytics offer new possibilities. Unleash digital marketing initiatives and convert them into more holistic demand signal initiatives to power new opportunities. For the first time in the history of downstream data, the consumer-driven value network is within our reach.

### Conclusion

The availability of downstream data has never been higher, but the efforts to use it are stalled. The answer lies in rethinking processes end-to-end to use the data. The answers fly in the face of traditional thinking and will require active stewardship by manufacturing leaders that understand why it is important to drive outside-in processes.

### **Appendix**

Get the complete set of summary charts from this Supply Chain Insights research study.

#### Quantitative study methodology and demographics:

WHY	WHAT
Objectives:	Survey topics:
<ul> <li>To understand the current state of downstream data, what types are being used and how it is changing supply chain processes.</li> </ul>	<ul> <li>Downstream data efforts: types used, who leads, how funded, current success, retail partnerships, data cleanliness, technology usage</li> </ul>
<ul> <li>Hypothesis:</li> <li>We are making slow progress though it has sped up in the last year.</li> </ul>	<ul> <li>Importance of using downstream data and company's performance related to specific processes</li> </ul>
	<ul> <li>Top barriers to using downstream data</li> </ul>
HOW	WHO
HOW  • Surveys conducted online	WHO • 29* respondents from over 20 companies
HOW  • Surveys conducted online  • Survey dates:	WHO • 29* respondents from over 20 companies • Respondent requirements:
HOW  • Surveys conducted online  • Survey dates:  • August 1 – October 22, 2012	WHO • 29* respondents from over 20 companies • Respondent requirements: • Manufacturer
HOW • Surveys conducted online • Survey dates: • August 1 – October 22, 2012	WHO <ul> <li>29* respondents from over 20 companies</li> <li>Respondent requirements: <ul> <li>Manufacturer</li> <li>Currently using or trying to use downstream data</li> </ul> </li> </ul>
HOW  • Surveys conducted online  • Survey dates:  • August 1 – October 22, 2012	WHO  • 29* respondents from over 20 companies  • Respondent requirements:  • Manufacturer  • Currently using or trying to use downstream data  • In one of the following industries:
HOW • Surveys conducted online • Survey dates: • August 1 – October 22, 2012	<ul> <li>WHO</li> <li>29* respondents from over 20 companies</li> <li>Respondent requirements: <ul> <li>Manufacturer</li> <li>Currently using or trying to use downstream data</li> <li>In one of the following industries: <ul> <li>Basic Apparel &amp; Footwear (7%), Consumer Packaged Goods (48%), Fashion Apparel (0%), Food &amp; Beverage (41%), High-Tech &amp; Electronics (0%) and Over-the-Counter Pharmaceuticals (3%).</li> </ul> </li> </ul></li></ul>

#### **Figure A. Study Demographics**



**Company Overview** 







#### **Respondent Overview**

Source: Supply Chain Insights LLC, Downstream Data (Aug-Oct 2012)

Base: Manufacturers using/trying to use downstream data (n=29 - CAUTION: Small base size)

Q43. Which of the following levels best describes your title or approximate level? Q44. Which of the following most accurately describes your job area or function?

#### **Retailers Providing Downstream Data**



8 Retailers on Average (among list)

Source: Supply Chain Insights LLC, Downstream Data (Aug-Oct 2012) Base: Manufacturers using/trying to use downstream data (n=29 – CAUTION: Small base size) Q16. From which retailers does your company get downstream data? Please select all that apply.

### **About Supply Chain Insights LLC**

**Supply Chain Insights LLC (SCI)** is a research and advisory firm focused on reinventing the analyst model. The services of the company are designed to help supply chain teams improve value-based outcomes. Commercial offerings include research-based Advisory Services, a Dedicated Supply Chain Community and Web-based Training.

### About Lora Cecere



Lora Cecere (twitter ID <u>@lcecere</u>) is the Founder of <u>Supply Chain Insights</u> <u>LLC</u> and the author of popular enterprise software blog <u>Supply Chain</u> <u>Shaman</u> currently read by 5000 supply chain professionals. Her book, **Bricks Matter**, publishes in December 2012.

With over nine years as a research analyst with **AMR Research**, **Altimeter Group**, **Gartner Group** and now as a Founder of Supply Chain Insights, Lora understands supply chain. She has worked with over 600 companies on their supply chain strategy and speaks at over 50

conferences a year on the evolution of supply chain processes and technologies. Her research is designed for the early adopter seeking first mover advantage.