MIT Center for Transportation and Logistics

Demand Management Interest Group Retreat

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Table of Contents

Executive Summary	
Demand Management to Bridge Supply and Demand	
Key Research Findings: Ownership, Gaps, and the Future of DM	1
Future Research	
Takeaways	1
1. Demand Management	2
1.1. DM Creates the Bridge to Match Supply and Demand	2
DM Includes Demand Shaping	
Why Now: Beyond Silo-Based Optimization	
Goal: Profits from Efficient Perfect Orders	
2. DM Activities	
2.1. S&OP	
Keystone of the Bridge	
Who Owns S&OP within the Organization?	5
Organizational Structure	5
Use of KPIs	5
Other Decision Support Data	
2.2. Order Promising	
what to Promise	
Is ATP Actually Available to Promise?	0
FIFO: Easy But Subortimal	
2.3. Customer Service Policies and Segmentation	
2.4. Exception Management	8
Monthly Plan vs. Daily Reality	
Curse of the Everyday Hero	
2.5. Planning Horizons	9
What's Your Horizon?	9
Short-Term and Long-Term Decisions	9
3. DM Data Issues	
3.1. Use of POS Data	
3.2. Forecast Errors	
3.3 Granularity: Slicing and Dicing without Getting Cut	10
5.5. Oranularity. Sheing and Dreing without Octaing Cut and and and and and and and a start of the start of the	
4. Behavioral Dynamics	
4.1. S&OP Psychology 101	
4.2. Embedded Forecasters	
4.3. Incentives	
5. Wrap Up	
5.1. Future Research	
5.2. Takeaways	

Executive Summary

Demand Management to Bridge Supply and Demand

The Demand Management Interest Group (DMIG) met for a networking retreat on December 11, 2007. Group size was limited to 20 attendees, to permit an interactive session. Attendees represented executives involved in demand management (DM) activities from ten (10) companies, which spanned industries from food to high-tech to automotive to retail to chemicals to consumer packaged goods. The retreat focused on identifying principles that work across industries. The retreat began with a review of DM practices and discussed the results of MIT research activities as well as the results of an industry survey.

The purpose of DM is to help companies optimally match supply and demand by bridging the customer-facing and supply-side elements of the organization. Sound S&OP (Sales & Operations Planning), order promising, and customer services, segmentation, and policies all help increase profits and maximize efficient perfect orders (EPOs).

Key Research Findings: Ownership, Gaps, and the Future of DM

Research findings indicate that DM is still owned by the supply-side at most companies, which reflects the history of DM and the original alignment of benefits of DM. At most companies, S&OP primarily uses future demand forecasts, plans and prior operational results as inputs.

Future Research

In the area of future research for MIT to pursue, several DMIG members were interested in research on metrics that would align supply and demand. What kind of overarching metrics would drive Supply and Demand people toward a common goal?

Three members expressed interest in a further discussion of point-of-sale (POS) data. It was interesting to discover, one member said, that many companies at the retreat considered POS data to be over-rated. The data seems useful for promotional and new product introduction activity, but could it be useful to the supplier in other ways? Another member added that for POS data to be valuable to a company, it must be linked to pricing and inventory data.

Takeaways

An interesting idea from the day was the idea of giving customers a rebate based on their forecast accuracy. This type of incentive makes sense if it saves the supplier money and reduces the total cost to service that order.

Several members mentioned the idea of EPO and cost-to-serve metrics as most valuable. Companies tend to pursue revenue maximization, but not necessarily profitability. Servicerelated policies, EPO, and metrics like cost-to-serve can all help a company improve profitability.

1. Demand Management

1.1. DM Creates the Bridge to Match Supply and Demand

DM is an integrated set of business processes for matching supply and demand. DM is much more than just forecasting, because it includes short-term, medium-term, and long-term activities that seek to proactively co-manage both supply and demand. Thus, DM bridges front-office and back-office activities to improve coordination between the customer-facing functions (e.g., sales and marketing) and the supply-side operations (e.g., manufacturing, warehousing, distribution, procurement, etc.).

The heart of the problem lies in matching supply and demand, which can be done through bridging processes. Specifically, the three key parts of DM are:

- * S&OP (Sales & Operations Planning), which coordinates medium-term (usually monthly) plans for demand and fulfillment.
- * Order Promising, which provides real-time supply response to demand
- * Customer services, policies and segmentations, which set long-term demand-side expectations such as lead-time and pricing.

DM Includes Demand Shaping

S&OP has been a hot topic because companies are spending less capital and are trying to reduce inventory in increasingly complex supply chains. The result can lead to not having enough product to meet consumer needs. This problem is driving companies to use S&OP to better match supply and demand during planning.

DM is more than forecasting. Whereas forecasting takes the passive view that demand is something to predict and react to, DM takes the view that demand can be shaped proactively. In bridging the gap between supply and demand, DM shapes demand on various time scales to better match supply and demand. Demand shaping is also possible in both push and pull environments. Price, availability, lead-time, configuration restrictions, and substitution are all tools which companies can use to shape demand.

One DMIG member wondered how to control demand while still being customer-focused. It seemed that not doing promotions would be seen as a "no growth" policy. Another member concurred that trade promotions were the "dumbest marketing ploy." But, companies have to do promotions because their competitors do them. So, if trade promotions are to be done, the key is to do them as well as possible. One company has developed a way to identify profitable ads and promotional lifts. It is now working with its customers so that the ads that are most attractive for the end consumer are the ones used. It's a win-win for both the supplier and its customer. The most effective ads help the customer increase sales, and they also remove variability for the supplier.

"I can guarantee that promotions aren't going away," one retail member told the group. "It's a point of differentiation. Your product is carried in different outlets so promotions make the

difference to the consumer. We will promote because it drives traffic to us rather than to a competitor. It's a known fact, so the question is how to optimize the process to make it better."

Why Now: Beyond Silo-Based Optimization

Companies need DM because of the gap between demand-facing approaches and supply chain management approaches. On the demand-side, sales and marketing managers usually optimize their activities to increase top-line revenues, market share, and other customer-oriented measures of performance. On the supply side, logistics and operations managers have traditionally taken a cost-focused approach. Supply chain and operations management have done a good job of cutting inventories, cutting costs, increasing efficiency, and improving asset utilization. The problem is that siloed optimization leads to two problems: demand patterns that can't be efficiently fulfilled and excess inventories or capacity that can't be profitably sold. For example, marketing might create promotions that can't be fulfilled, sales might make promises that force operations into expensive expediting, and operations might produce batches of product that no customer wants.

Over the last decade, the supply chain function has been good at reducing cost and inventories. But now, it needs to move to enhancing and improving revenues and profitability. Several trends exacerbate this gap and motivate companies to adopt the more integrated approach of demand management. Globalization has created more demand channels and more competition on the demand side of the business. At the same time, globalization, offshoring, outsourcing, and contract manufacturing of finished goods have lengthened lead-times and reduced the company's control over the supply side of the business. The point is that a more complex world with more constraints is pushing companies to bridge the gap between supply and demand.

Not only has globalization added complexity to all companies, but it has created a tension within DM as well. As one DMIG member noted, his company was moving from global DM to more local DM, whereas another member's company was moving from local DM to global, using local knowledge at the global level. A third company, a fresh produce distributor, has seen volatility explode after its move away from commodity products toward more value-added ones. DM had traditionally been localized, but as the company expanded the number of SKUs offered, it found that forecasters were coming to the S&OP meetings with much more limited views of only their own products. The result was gross oversupply or undersupply. The company is now restructuring and deciding where to put S&OP -- whether on the sales side or on the plant side -- in order to decrease forecast error and variation when forecasting for so many SKUs.

Finally, DM represents the next frontier of competition -- companies have improved sales processes and companies have improved supply chain processes, but they have not jointly optimized them, yet. DM began with Oliver Wight's concept of S&OP: getting better sharing of the sales forecast with manufacturing. Since then, it has evolved to encompass P&G's CDSN (Consumer-Driven Supply Network) and AMR's DDSN (Demand-Driven Supply Network) concepts.

Goal: Profits from Efficient Perfect Orders

Dr. Larry Lapide introduced the concept of the efficient perfect order, which he wrote about in the article, "Not-So-Perfect Order" in the July/August 2007 issue of *Supply Chain Management Review* magazine. On one hand, many companies strive for perfect orders -- delivering the right

product to the right place at the right time and at the right price. This is a very customer-focused view of orders that is great for customers but not always good for business. On the other hand, companies strive for efficiency and profits. This means avoiding excess touches, duplicated handling, expedited shipping, inefficient batch sizes, and other cost-increasing practices. The point is that there are two sides of the efficient perfect order -- perfect from a customer point of view but also efficient from the business point of view so that the order is met in a profitable way. Companies can also use methodologies such as total cost-to-serve and activity-based costing to measure the business-side efficiencies of fulfillment.

Although many companies use DM to maximize profits, DM can be used more broadly to maximize any other enterprise goals that require the cooperation of both the supply and demand sides of the business. For example, new market entry goals might require joint planning of new product launches in the context of tradeoffs between what product features customers will pay for versus what costs will be incurred by offering those features. The broader point is that no one reaches 100% perfect orders, nor can afford to. Instead, businesses need to maximize efficient perfect orders in the context of their business goals.

About five DMIG companies in the group were measuring perfect orders, but none were measuring EPOs. One reason was the delay in getting the data. For example, getting paid on time is a component of the EPO metric, and companies do not know whether they have been paid on time until a month later, when the invoice is due.

The group consensus was that EPO was a backward-looking metric that is useful as a learning tool, but not as a proactive actionable tool. For example, one company discovered that it was shipping products in multiple shipments, which was costing the company money. Collecting information on activities like expediting lets the company drill down into the cause that necessitated the expediting and then correct that problem.

2. DM Activities

2.1. S&OP

Keystone of the Bridge

Sales & Operations Planning, also called Merchandise Planning & Allocation (MP&A) in retail, is a keystone DM process of coordinating demand-side and supply-side plans. The process is fed by supply and demand planning processes which leverage upstream and downstream information, respectively. S&OP, itself, is a process of reconciling and integrating the two sides of the organization on a medium-term planning basis, usually a monthly cycle. Strategic objectives drive S&OP; S&OP, in turn, drives short-term activities on both sides of the organization. The process is often delineated by a cycle of meetings which culminates in an executive S&OP meeting in which executives on both sides of the bridge agree to execute the joint plan.

Who Owns S&OP within the Organization?

The group discussed who typically owns the S&OP process within organization. Oliver Wight had recommended that ownership be with a general manager who has overall responsibility. A DMIG member from a high-tech company pointed out that senior people have so much on their minds that they can't concentrate their energy on one area. A better approach may be for the senior manager to define the metrics and then hold others accountable. A consumer electronics company observed that the solution is usually a matrix, which requires a lot of communication to overcome the silo mentality.

Organizational Structure

The group then discussed organizational structure and DM. At a large CPG firm, 600 people work in demand planning alone. At a food manufacturer, S&OP has expanded and is in almost all divisions. At a chemicals company, supply and demand are both in the same organization, under the same umbrella.

Use of KPIs

Companies use a wide variety of backward-looking (scoreboard) and forward-looking (dashboard) analytics and KPIs to guide S&OP as a recent survey done by the Demand Management Solutions Group (DMSG) showed. Below is the list of the top backward-looking analytics, (and the percentage of respondents who use those analytics):

- * Order Fill Rates (64%)
- * Inventory Turns (59%)
- * Demand Forecast Errors (59%)
- * Adherence to Demand Plans (50%)
- * Adherence to Supply Plans (45%)
- * Other (9%)

The top forward-looking analytics (and the percentage of respondents who use those analytics) are:

- * Demand/Revenue Forecasts (79%)
- * Demand Plans (60%)
- * Financial Plans (58%)
- * Supply Plans (57%)
- * Inventory Plans (57%)
- * Other (7%)

Three patterns are interesting in this survey data. First, companies use demand-side forecasts and plans more than supply-side information on the forward-looking part of the S&OP. This probably reflects S&OP's origin in focusing on the sales forecasts to guide supply decisions. Second, prior adherence to plans is less watched than are classic supply metrics such as fill rates and turns. This is also not surprising, given that supply owns S&OP in most companies. As long as supply owns S&OP, they will want forward visibility onto future demand while

monitoring past fulfillment and inventory. Third, the pattern of multiple responses suggests that companies use a balance of both forward and backward-looking information.

Other Decision Support Data

Companies also have a range of decision support reports and other information that helps optimize DM. A Larstan Publishing DM Roundtable Industry Survey from August 2006 found that companies have the following types of decision support information.

- * Product Profit Reports (56% of companies)
- * Customer Profit Reports (40%)
- * Activity-Based Costing (32%)
- * Total Cost-to-Serve Reports (28%)

During the discussion of this survey data, a food manufacturer noted that his company uses customer profitability scorecards. "The scorecards help you drive your own destiny to align or collaborate with those key customers who will drive your profits," he said. Dr. Lapide added that "profitability" is often a pure accounting number but that cost-to-serve varies by customer. Measuring the true cost-to-serve may be more desirable.

2.2. Order Promising

What to Promise

When an order arrives, what should the company promise to the customer? For many companies, this is a moment of truth that sets expectations and determines the likelihood of delivering an efficient perfect order. Should the company say yes? Should it promise a delivery date on all or part of the order? Should it quote a particular price or service terms? What a company promises its customers is a key real-time element of DM. The survey found that 88% of companies promise a delivery date at the time of an order. Of those 88%, 49% use a standard lead time and 42% base it on available inventory.

Prioritizing among Customers

Customer prioritization is a core element of order promising -- 59% of companies assign different priorities to different customers or orders, and they work differently to fulfill those promises. Common prioritization schemes include (with percent of respondents from the DMSG survey):

- * Strategic customers (45%)
- * Largest customers (32%)
- * High-margin/profit orders (25%)
- * Strategic product orders (17%)
- * Other (7%)
- * None, orders filled on a first-come, first-served (FIFO) basis (41%)

Priorities can change over the quarterly cycle at some companies, but not many. Even among companies that do prioritize orders, nearly half (47%) use the same priorities throughout the

quarter. The most common cause of varying priorities is constrained supply -- 40% of companies that do prioritization do so only on products that are on allocation.

Among DMIG members, an automotive company prioritizes customers (dealers) on a "turn and earn" basis. Dealers who sold a lot of inventory in the past get priority.

Is ATP Actually Available to Promise?

The DMSG survey also asked companies about the accuracy of the data that might be used for order promising. Average accuracies were:

- * Inventory accuracy (89%)
- * Production schedule accuracy (83%)
- * Inventory plan accuracy (82%)
- * Unused production & materials accuracy (77%)
- * Demand forecast accuracy (74%)

Within the DMIG group, one company used Capable-to-Promise (CTP) based on production schedules and another used ATP based on production plans. The data for the latter was based on planning rather than on actual inventory because the company holds little finished-goods inventory. Instead, it allocates against future production plans.

FIFO: Easy, But Suboptimal

Forty-one (41%) percent of companies use FIFO, which is the simplest order prioritization scheme. But FIFO is not optimal either in terms of maximizing customer-side performance or business performance. FIFO means that some customers get their order later than they might need and that some fulfillment activities occur inefficiently.

As one food manufacturer noted, FIFO is his company's strategy, "but it is under heavy debate." Another food manufacturer uses FIFO in the short term and customer segmentation for long term allocation decisions. A third company, whose products include fresh and ready-made items, uses customer segmentation exclusively because "some customers are more equal than others."

More sophisticated order promising logic enables the company to change the order promise to both shape demand and to increase the chance of delivering an efficient perfect order. Moving beyond FIFO means answering the following three questions:

- * Which supply (e.g., inventory at some location, future supply, future new production, or substituted product) do we fulfill the order with?
- * What priority do we assign to the order relative to other orders, other customers, and other internal activity (e.g., warehouse replenishment)?
- * What price do we offer in order to maximize the yield on our inventory, capacity, or supply?

2.3. Customer Service Policies and Segmentation

As the order prioritization survey shows, most companies segment customers and offer different levels of service. For example, one type of segmentation might offer standardized handling and

delivery to the lowest tier, special handling and discounts to a middle tier, and extensive data sharing and collaboration with the top tier.

Customer segmentation is the third major element of DM because it helps set customer expectations on the demand side. Customer segmentation also helps the supply side by letting them focus on high-priority orders and handle constrained supply. If every customer is top-priority, then no customer is really top-priority.

Companies at the retreat all had segmentation programs, and the programs were offered to all customer companies. In practice, however, only some companies, (such as very large ones) might be able to take advantage of a given program. One high-tech firm has found that a particular customer may request a special program, which the company designs and then expands and standardizes in order to offer it to other companies as well. A member from another high-tech company noted that within B2B, there's little visibility into the cost of services; service is often embedded into the product price. As a result, a customer can't determine whether a given service is worth paying for. Dr. Lapide added that most companies create customer segments without profitability in mind, which creates problems for their organizations.

As a practice, customer segmentation is moving down into retailing as well. Home Depot has special programs for building contractors; Staples targets small businesses. Even grocery stores are looking at segmentation via loyalty card programs. Sound customer segmentation helps maximize profits by controlling cost-to-serve and aligning service with profit margins.

2.4. Exception Management

Monthly Plan vs. Daily Reality

A lot can happen between S&OP cycles. Companies need to handle the discrepancy between plan and reality. Currently, survey results showed that only one-half of companies use formal exception management processes -- 53% have it for the demand side and 49% use it for the supply side. As one high-tech company pointed out, if S&OP-related meetings are being held weekly, then the exception-handling is done during that meeting. There may be no reason to discuss the exception the next day if a meeting will discuss it next week. A food manufacturer pointed out that exceptions are often handled with safety stock by the supply folks and would only be escalated to exceptions if there was a possibility of running out before the monthly meeting cycle.

Curse of the Everyday Hero

Every company has heroes -- people who solve tough problems and expedite processes to meet customer needs. Yet service above and beyond the call of duty may not be a sign of greatness. Dr. Lapide told a story about a pet food company that had 100% order fulfillment for 15 years. One day they didn't have enough product so a worker went to a retail store, bought the pet food, repackaged it, and helped get the order out. But the planners never found out about this heroic but financially disastrous behavior. The point is that, although companies do need heroes, the need for heroes is a sure sign of deeper, unfixed problems. Companies need to measure and analyze when events don't go according to plan.

2.5. Planning Horizons

What's Your Horizon?

Planning is done on an 18-24 month rolling process at two DMIG companies -- high-tech and CPG -- and at 18 months at a semiconductor company. A food manufacturer uses a "telescoping" process which follows the calendar year, so the increment is monthly, but the process isn't a rolling process because it is difficult to get big activities planned out that far in advance. At other companies, the process isn't a "rolling" process as much as it is a "ratcheted" one.

Similarly, in the survey data, planning horizons varied among companies as well. What one company might think is "short-term" might be considered "long-term" by another company. The most common planning horizon cited in the DMSG survey was 1-2 years, which was used by 43% of companies. One quarter (25%) of companies look 2 years or longer. The remaining companies have horizons of 6 months or less (16%) or between 6 and 9 months (16%). Thus, the vast majority of companies plan for at least a year of future demand and supply.

Within that planning horizon, most companies (86%) split the time to differentiate between "short-term" and "long-term" decisions. Different companies use different definitions to split between "short" and "long." The most popular short vs. long dividing lines are 12 months (33% of surveyed companies) and 6 months (28%). Other, less common splits are 3 months, 9 months, and 18 months, with about 7% to 8% of companies using each of those definitions. Only 2% of companies split short-term and long-term at 1 month and only 2% split it at 5 years.

Short-Term and Long-Term Decisions

The survey also asked companies about which decisions are considered short-term, long-term, or both. Inventory replenishment, production/operations scheduling, and buying/procurement needs were considered short-term decisions by the vast majority of companies (93%, 88% and 74%, respectively). Outsourcing plans and new product launches were overwhelmingly long-term decisions for most companies (77% and 75%, respectively). Decisions for plant capacity planning were evenly split between short-term and long-term, suggesting that such decisions have both short-term and long-term aspects. Similarly, buying/procurement needs and new product launches had a strong component of "both" short and long-term decisions.

3. DM Data Issues

3.1. Use of POS Data

The consensus among DMIG participants was that POS data was over-rated. POS data carries information that's historical. It tells the company what has sold. But, it's not a leading indicator. In addition, POS data is data-rich but information-poor. Not having POS data may be fine for many organizations. One DMIG member commented that his company uses POS data to validate assumptions, but not for planning. Similarly, a fresh food company uses POS data for promotional planning but not for demand signaling. The data can be used for planning future promotions but not for responding to current ones.

3.2. Forecast Errors

Dr. Lapide wrote about forecasting errors in "Don't Just Measure Forecast Errors" in the Summer 2007 issue of the *Journal of Business Forecasting*. He discussed how to learn from forecasting errors and how to deploy risk management strategies such as:

- * hedging supply (e.g., lock-in supply)
- * risk pooling (e.g., postponement of finishing steps that differentiate error-prone SKUs)
- * delaying decisions (e.g., Sport Obermeyer manufactured low-error products first and used early demand data to refine the forecast of the others)
- * supply buffers (e.g., the classic practice of maintaining safety stock or excess capacity)

Because the high levels of forecast errors are not surprising, and can be embarrassing, people prefer to ignore them. But, companies should carefully assess forecasting errors to:

- * improve the forecasting process
- * identify specific risks that cause errors
- * manage supply for both the confidently known and the unpredictable fractions of demand
- * assess the value added by forecasting

Various companies use different risk management techniques in the face of forecasting errors. For example, HP uses range forecasting to hedge supplies. Rather than forecast a single point value which is wrong, HP forecasts an upper and lower expected level of demand and uses that to create contingent contracts with suppliers. For example, it HP knows it needs between 60 and 140 of some item, it might buy 60 right now and create a contract in which the supplier agrees to deliver up to another 80 on some lead-time. If demand goes over 140, HP might then use the spot market to handle the upside errors on the range forecast.

The point of looking at forecast error is not to punish forecasters -- forecast error will likely always happen due to uncertainty. But by collecting information about what the forecast error was, the company can improve the forecasting process. "You'll never get to zero forecast errors," Dr. Lapide said, "but you need to measure it so that you can cope with it." Companies resist measuring the error because it is makes them look bad, but the measurement should be used as a learning tool not a scorecard.

Consistent forecast error is helpful to know about because then the supply side can hedge against it. One DMIG member company analyzes forecast errors as a way to make future improvements.

3.3. Granularity: Slicing and Dicing without Getting Cut

Planning for supply and demand often means aggregating the data across product or customer segments, especially when looking long-term. Due to the immense volumes of data, few (only 18% in the DMSG survey) of companies use SKU-level data for long-term supply-demand planning. The most common aggregations for long-term decisions are: product families (74%), brand (64%), customer segments (63%), regional/geographic demand (54%), and detailed/SKUs (18%). Detailed data is commonly used in the short-term. The most common aggregations for short-term decisions are: Detailed/SKUs (88%), regional/geographic demand (62%), customer segments (54%), product families (53%) and brand (32%).

One reason for the difference is that the needs of the forecasts are different -- the SKU-level detail is needed in the short term, but in the long-term plan, a general place-holder for capacity is all that's needed. The difficulty is that ERP tools aren't friendly in terms of differentiating between short-terms and long-terms. A semiconductor company uses the same tool for planning at the SKU level and for the long term. The biggest emphasis is to get the data right, which has resulted in processes that ignore the ERP system. People exchange spreadsheets instead, with the edict "ignore the ERP system" because the data in the ERP system is not as complete or accurate. The corporate mantra, however, is to "get it into the ERP," but the question is what will happen to the factory if they use the ERP data -- will it jerk the factory around?

4. Behavioral Dynamics

4.1. S&OP Psychology 101

Behavior and change management was a challenge for many DMIG members. The problem has a psychological dimension to it. Supply-side people, sales/marketing people, and top executives have different ways to looking at the world. At a previous MIT symposium on DM, Harvard psychologist Dr. Shalom Saar described a color-coded three-category model of people's mental styles. "Red" people insist on hard facts and the practicalities of day-to-day realities and are driven by "what is true." "Green" people operate on an optimistic flow of possibilities and are inspired by "what is new." "Blue" people operate impatiently from deep convictions and are motivated by "what is right." In general, operations people are Reds, sales people are Greens, and executives are Blues. This implies a chasm between the three groups that can create misunderstandings and mistrust. One takeaway is that you don't ask the sales rep for a number forecast because that's not how they think. Instead, you ask about the future business environment. The point is to learn S&OP Psychology 101 to learn how to work with the different types of personalities in the organization.

4.2. Embedded Forecasters

Taking the S&OP psychology principles to heart, telecommunications equipment manufacturer Lucent embedded forecasters inside the sales organization. Rather than force the salespeople to create a forecast -- something salespeople have neither the skills nor inclination to do -- Lucent's forecasters could watch the sales process and create a better forecast based on first-hand knowledge of the sales funnel. A food manufacturer took a similar approach, embedding forecasters in the marketing department to help understand demand generated by promotions. The goal was to get more accurate numbers from the sales side and to assign accountability with one person, the forecaster. Forecasters do best when they use their own judgment on the numbers rather than simply taking as a given the numbers they receive.

4.3. Incentives

During the discussion, the question of metrics and incentives arose. One company has metrics around growth targets and cash targets. Another company incentivizes on ROI, because sales people want to drive up inventory to meet potential sales, while Supply Chain will say it doesn't

have capacity. Incentivizing on ROI requires the Sales side to work with Supply Chain to get the inventory right.

5. Wrap Up

5.1. Future Research

In the area of future research for MIT to pursue, several DMIG members were interested in research on metrics that would align supply and demand. What kind of overarching metrics would drive Supply and Demand people toward a common goal? Possible metrics might be gross margin, ROI, total cost-to-serve and EPO.

Three members expressed interest in a further discussion of POS data. It was interesting to discover, one member said, that many companies at the retreat considered POS data to be overrated. The data seems useful for promotional activity, but could it be useful to the supplier in other ways? Another member added that for POS data to be valuable to a company, it must be linked to pricing data and inventory data.

5.2. Takeaways

An interesting idea from the day was the idea of giving customers a rebate based on their forecast accuracy. This type of incentive makes sense if it saves the supplier money and reduces the total cost to service that order.

Several members mentioned the idea of EPO and cost-to-serve as most valuable. Companies tend to pursue revenue maximization but not necessarily profitability. Service-related policies, EPOs and metrics like cost-to-serve can all help a company improve profitability.

Order promising logic proved to be another valuable takeaway, particularly in terms of linking promises and incentives.

One member summed up the day this way: "It was good to hear the different perspectives. I learned that our company is not that different from others – we tend to think we are, but in fact we're all struggling with the same issues."