Strategic Demand Management for Capacity-Driven Companies: A Tailored Approach to Optimize Supply and Demand

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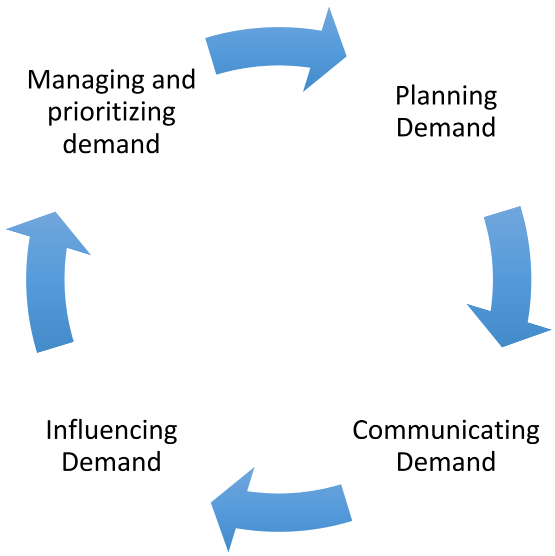
Demand management is a core capability for any organization striving to align its operations with market needs. However, the approach to effective demand management varies significantly based on a company's capacity structure. For instance, during a Demand Management assessment project that I led for a retail Pharma U.S. based corporate client with moderately variable capacity, I identified process risks and potential cost savings by improving demand forecasting and synchronizing supply with distribution. While demand for pharmaceuticals and health products remains relatively steady, there are still notable fluctuations. For example, demand spikes during flu season, allergy season, and other times when there's a higher incidence of certain health issues. Hence, we recommended to increase forecast accuracy between **85-95%.** High accuracy in this range helps meet regulatory requirements and customer expectations, especially during demand surges like flu season. This minimizes costly expedited shipping and lost sales due to inventory shortages. For seasonal products, like allergy medication in spring or sunscreen in summer, a forecast accuracy of around **75-85%** may be sufficient. Seasonal products are easier to predict due to cyclical demand patterns, allowing retail products to avoid excess stock that ties up capital and could lead to markdowns after the season ends. Seasonal trends are more predictable, allowing for effective pre-planning without the need for overly precise accuracy. For products with less critical demand, like personal care items, snacks, and beauty products, a lower accuracy level of around **70-80%** can still be effective. Demand for these products is less predictable and carries a lower risk of operational disruption if understocked. With this approach, our pharma retail client allocated resources more effectively towards higher-priority items, reducing waste and minimizing the need for frequent demand adjustments.

In another demand management assessment for a U.S. Solar Energy Manufacturer client, we had a scenario where there were constrained capacity. The client had to manage and prioritize demand carefully to ensure high-priority customers and projects are served first. In their S&OP transformation project, one goal was likely to optimize demand allocation and enhance forecast accuracy to make the best use of their limited capacity, allowing them to prioritize orders effectively and maintain service levels despite constraints. We optimized demand allocation within constrained capacity by benchmarking best practices and refining demand planning forecast accuracy. Our client had a capacity situation aligns well with the **Fixed Average Capacity** category, as they manage a steady production output with limited ability to scale up quickly. Their demand management focus is therefore on **managing and prioritizing demand** within these fixed constraints, ensuring key projects receive priority and capacity is utilized as efficiently as possible.

This article will explore how businesses with different capacity structures—***fixed high capacity, highly variable capacity, moderately variable capacity, and fixed average capacity***—can leverage tailored strategies across four critical areas: planning, communicating, influencing, and managing & prioritizing demand.



1. Fixed High Capacity: Emphasis on Long-Term Demand Planning
Companies with fixed high capacity, such as semiconductor manufacturers like Intel, must carefully plan demand due to the high costs and inflexibility of their production assets. Intel invests heavily in specialized equipment and facilities that operate continuously to maximize return on investment and meet the consistent demand for products like microprocessors. As a result, long-term planning is essential.

- **Planning:** Fixed high-capacity businesses benefit most from robust, long-term planning strategies. Detailed forecasting, historical trend analysis, and predictive modeling help ensure production aligns with anticipated demand, minimizing downtime and maximizing resource utilization.
- **Communicating:** Communication still plays a role, especially in synchronizing with upstream suppliers and ensuring they're aware of any shifts in demand. By keeping suppliers informed, companies like Intel can better coordinate lead times and ensure raw materials align with production schedules.
- **Influencing:** Though influencing demand is less critical for fixed high-capacity organizations, they may still encourage off-peak demand or adjust pricing for less time-sensitive orders.

- **Managing & Prioritizing:** Managing demand prioritization becomes essential during rare instances of capacity strain, allowing these companies to serve high-priority clients or critical products first.

2. Highly Variable Capacity: The Importance of Rapid Communication

Highly variable capacity companies, such as Amazon, face frequent and often unpredictable demand fluctuations. Their success relies on the ability to quickly scale capacity during peak times, like holiday shopping seasons. By prioritizing real-time communication, they can adapt operations more proactively.

- **Planning:** While long-term planning is still necessary, short-term agility is key. Highly variable capacity businesses often rely on flexible production and logistics systems that can be scaled up or down quickly.
- **Communicating:** Timely communication is the primary focus. Amazon, for example, uses real-time tracking and notifications to ensure customers, suppliers, and partners are aware of capacity changes or delays. Proactive communication improves responsiveness and customer satisfaction, reducing the need to manage and prioritize demand during peak times.
- **Influencing:** Although not central to their strategy, highly variable capacity companies may offer incentives to smooth out demand during peak times, such as delivery discounts for non-urgent shipments.
- **Managing & Prioritizing:** During exceptionally high demand, prioritizing orders based on customer value or urgency becomes essential, ensuring high-priority shipments are fulfilled on time.

3. Moderately Variable Capacity: Focus on Influencing Demand

Companies with moderately variable capacity, such as Coca-Cola, balance between maintaining steady production and adjusting for seasonal demand variations. By focusing on influencing demand, they can optimize production without frequent capacity adjustments.

- **Planning:** Moderately variable capacity companies benefit from medium-term planning, which prepares them for seasonal shifts while maintaining flexibility. For Coca-Cola, this means planning for increased summer demand and adjusting output accordingly.
- **Communicating:** Communication helps align distributors and retailers with Coca-Cola's seasonal production plans, reducing potential bottlenecks. Clear communication of order windows and inventory levels helps minimize the need for last-minute adjustments.
- **Influencing:** Influencing demand is central for these companies. Coca-Cola, for example, can use promotions and incentives to drive off-peak purchases, encouraging customers to buy in bulk before peak demand periods. This reduces production variability and smooths demand.
- **Managing & Prioritizing:** While prioritization is less emphasized, Coca-Cola may still prioritize certain high-demand products during peak times to ensure availability for key items.

4. Fixed Average Capacity: Prioritizing Demand Management

Fixed average capacity companies, such as Toyota, operate at a steady, consistent level of production. With a lean manufacturing approach, Toyota avoids frequent capacity adjustments and instead prioritizes demand management to optimize the use of its resources.

- **Planning:** Long-term planning is essential but constrained by fixed resources. Toyota uses lean manufacturing principles to maintain steady production and avoid overproduction, aligning their output with demand forecasts and minimizing excess inventory.
- **Communicating:** Clear and timely communication with suppliers and customers is crucial. Toyota's use of real-time communication with its supply chain partners ensures that all stakeholders are aligned on production schedules and inventory needs.
- **Influencing:** Influencing demand helps balance supply limitations. Toyota can leverage pricing and availability adjustments to smooth out demand during high and low periods, ensuring production is balanced and efficient.
- **Managing & Prioritizing:** Managing and prioritizing demand is the primary focus for fixed average capacity companies. For Toyota, this may mean prioritizing orders for high-demand models during production constraints. In our **S&OP Transformation for Energy Solar client**, we implemented a prioritization system to optimize demand allocation within constrained capacity, achieving operational improvements by benchmarking against industry peers and enhancing forecast accuracy.

Conclusion

This tailored approach to demand management demonstrates how each company can avoid the need for reactive adjustments by emphasizing the right elements based on its capacity structure. Whether through detailed planning, rapid communication, demand influencing, or prioritizing demand, each strategy aligns with unique capacity demands to ensure efficient operations, cost savings, and enhanced customer satisfaction. By aligning these practices with capacity type, businesses can avoid many operational strains and create a more resilient, responsive supply chain.

Our Expertise: We help our clients benchmark their demand management processes as well as their forecast accuracy against their industry peers and provide the right S&OP governance and business rules across demand, supply and financial stakeholders to reap a customized demand management solution that can drive profitability and resilience in their industries

Please reach out to Mohannad Gomaa at mohannad@mgostrategy.com for our demand management assessment methodology and how we can bring value to your team.